63rd IAC

International Astronautical Congress

www.iac2012.org

1 - 5 October 2012, Naples, Italy

Final Programme

Space science and technology for the needs of all

Contents

1 Welcome Messages

1.1 Message from the President of the International Astronautical Federation

Welcome to the 63rd International Astronautical Congress (IAC), which is held this year in the beautiful Italian city of Naples. This is the fourth IAC to take place in Italy, but the first in the historic region of Campania.

Our theme this year is "Space Science and Technology for the Needs of All", which aptly summarises an important aspect of the IAF's remit. As an organisation, the IAF has always held the applications of space technology at the forefront of its collective mind and a significant part of the IAC is dedicated to these space applications.

As usual, our programme offers something for everybody interested in the activities of the space profession and within these pages you will find details of the many Technical Sessions, as well as Plenary Events and Highlight Lectures. Our dedicated teams of organisers have put together an unrivalled programme of technical content, presented through both oral and poster sessions, to address the interests of scientists, engineers, managers and lawyers, as well as students and young professionals. More than 3100 abstracts were submitted this year and the best 2150 papers were selected during the 2012 Spring Meeting in Paris. These papers and presentations can be found on the DVD included in your congress bag.

In addition, this booklet includes details of associated programmes and events, and a section of useful information for delegates and visitors – which prompts me to remind you to see as much of this fascinating city as you can.

An IAC would not be possible without the dedication and hard work of the International Programme Committee (IPC), the IPC Steering Committee, the Local Organising Committee, the IAF Secretariat and all the other event organisers.

I would like to take this opportunity to thank them all for making this another IAC to remember.

Enjoy your time in Naples!

Berndt Feuerbacher
President
International Astronautical Federation

1.2 Message from the Local Organising Committee

IAC 2012 brings prestige to Italy, Naples and the Campania Region in many ways. It rewards the work and involvement of Italian aerospace.

The Naples region and the surrounding province have had a long involvement with this industry with a widespread and innovative industrial base, ranging from small companies, through medium-sized high technology enterprises to large, leading world-class organisations. Italy has always been able to deploy its great abilities in this field, achieving great successes.

Representatives of national and regional politics, industry, universities, the world of research, but most of all, the whole Campania Region, have come together with ASI to help set up and organise the 63rd International Astronautical Congress. This makes Naples and Campania excel in this important global context.

The thousands of delegates will enjoy the renowned Neapolitan hospitality which has distinguished the city over the centuries.

Naples will show the world that it is a land of excellence – not only for its food and landscape, but also because of its position at the leading edge of high technology.

Enrico Saggese
Chair
Local Organising Committee

1.3 Message from the International Programme Committee (IPC) Co-Chairs

Dear Colleagues and Friends,

We are proud to welcome you to the 63rd International Astronautical Congress that will be hosted for the first time in Naples, the hometown of the late Prof. Luigi G. Napolitano, a former president of the IAF and an extraordinary space scientist who performed pioneering work in fields such as microgravity and aerothermochemistry of re-entry. The theme of the conference is "Space Science and Technology for the Needs of All" and from one of the oldest European cities we will take a look into the future and into how that future will be increasingly tied to space, in the interest and for the welfare of all of us.

We were fortunate to have attracted this year an extraordinary number of high quality papers and posters for the technical sessions, many proposals for outstanding plenary events and many distinguished exhibitors. We worked hard with the International Programme Committee Steering Group and the International Astronautical Federation Bureau to offer you a rich and comprehensive scientific programme.

In addition, in supporting the constant effort of the IAF to combine scientific and technical excellence with networking among present and future space activists and leaders, the programme includes many thematic events, workshops, meetings and fora to exchange experiences, know-how and visions. In particular, special effort will be given to offer students and young people from all over the world – from spacefaring to developing nations – a chance to get acquainted with their colleagues and to gain an updated and complete overview of the space world and its opportunities, first-hand from experts and leaders in every sector of the space community.

We thank you for being here with your expertise and enthusiasm. We do hope that you will enjoy this IAC – the world's leading space event – and that you will also find a little time to visit the city of Naples and its surroundings, so charming for their history, nature and dolce vita.

Antonio Moccia and Li Ming
IPC Co-Chairs

2 Organisers

2.1 The International Astronautical Federation

Founded in 1951, the International Astronautical Federation is the world's leading space advocacy body with more than 200 members on six continents, including all leading space agencies, space companies, societies, associations and institutes worldwide.

Following its theme "A space-faring world cooperating for the benefit of humanity", the Federation advances knowledge about space, fostering the development and application of space assets by advancing global cooperation.

As organiser of the annual International Astronautical Congress (IAC) and other thematic meetings, the IAF actively encourages the development of astronautics for peaceful purposes and supports the dissemination of scientific and technical information related to space.

International Astronautical Federation
94bis, avenue de Suffren
75015 Paris, France

T: +33 1 45 67 42 60
F: +33 1 42 73 21 20
W: www.iafastro.org
E: info@iafastro.org
Facebook: www.facebook.com/iafastro
Twitter: www.twitter.com/iafastro
Youtube: www.youtube.com/iafastro

IAF Member Organisations 2012*

Africa	
Algeria	Agence Spatiale Algérienne (ASAL)
Libya	Association of Arab Remote Sensing Centers (AARSC) Libyan Center for Remote Sensing and Space Science (LCRSSS)
Morocco	Centre Royal de Télédétection Spatiale
Nigeria	National Space Research and Development Agency (NASRDA) Nigerian Meteorological Agency
South Africa	National Research Foundation (NRF) Space Commercial Services Holdings (Pty) Ltd. Stellenbosch University Sun Space and Information Systems (Pty) Ltd. University of the Western Cape
Tunisia	ATUCOM - Tunisian Association for Communication and Space Sciences Centre National de la Cartographie et de la Télédétection (CNCT)
Asia	
Azerbaijan	National Aerospace Agency (NASA) of Azerbaijan Republic Shamakhy Astrophysical Observatory
Bahrain	A9C Capital
China	Beihang University Chinese Society of Astronautics (CSA) Shaanxi Engineering Laboratory for Microsatellites
Cyprus	Cyprus Astronautical Society
India	Astronautical Society of India Indian Space Research Organisation (ISRO)
Indonesia	National Institute of Aeronautics and Space Indonesia (LAPAN)
Iran	Aerospace Research Institute (ARI)
Israel	Israel Aerospace Industries Ltd. Israel Society of Aeronautics & Astronautics Israel Space Agency (ISA) Rafael Advanced Defense Systems Ltd.
Japan	IHI Aerospace Co., Ltd. Japan Aerospace Exploration Agency (JAXA) Japan Society for Aeronautics and Space Sciences (JSASS) Japanese Rocket Society (JRS) Kyushu Institute of Technology Mitsubishi Electric Corporation Mitsubishi Heavy Industries, Ltd. NEC Toshiba Space Systems, Ltd. Sky Perfect JSAT Corporation
Malaysia	Astronautic Technology SDN BHD
Pakistan	Pakistan Space and Upper Atmosphere Research Commission (SUPARCO)
Republic of Korea	Korea Aerospace Research Institute (KARI) Korea Astronomy and Space Science Institute (KASI) Satrec Initiative The Korean Society for Aeronautical and Space Sciences
Saudi Arabia	King Abdulaziz City for Science & Technology (KACST)
Syria	General Organization of Remote Sensing (GORS)
Taiwan, China	The Chinese Aeronautical and Astronautical Society located in Taipei
Thailand	Geo-Informatics and Space Technology Development Agency (GISTDA)
Turkey	Istanbul Technical University (ITU) TÜBITAK
Vietnam	Space Technology Institute (STI) Viettel Technologies Joint Stock Company
Europe	
Austria	Austrian Research Promotion Agency European Space Policy Institute (ESPI) Graz University of Technology (TU Graz) Joanneum Research Space Generation Advisory Council (SGAC)
Belgium	Belgian Federal Science Policy Office (BELSPO) Centre Spatial de Liège (CSL), Université de Liège European Conference for Aero-Space Sciences (EUCASS) QinetiQ Space nv S.A.B.C.A Serco Europe von Karman Institute for Fluid Dynamics
Bulgaria	Bulgarian Aerospace Agency

**Country and continent listings based on the United Nations Statistical Division classification*

Croatia	Croatian Astronautical and Rocket Federation (HARS)
Czech Republic	Czech Space Alliance Czech Space Office
Denmark	Danish Astronautical Society GomSpace Aps
Estonia	Enterprise Estonia
Finland	Finnish Astronautical Society
France	Arianespace Association Aéronautique & Astronautique de France (AAAF) Astrium SAS France Centre National d'Etudes Spatiales (CNES) Dassault Aviation EADS Sodern EURISY Euroconsult European Space Agency (ESA) Eurospace GIFAS ICARE-CNRS Institut Français d'Histoire de l'Espace International Space University (ISU) Novespace Office National d'Etudes et de Recherches Aérospatiales (ONERA) Snecma Starsem Thales Alenia Space France
Germany	Astrium GmbH Deutsche Gesellschaft für Luft- und Raumfahrt, Lilienthal-Oberth e.V. (DGLR) Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR) Eumetsat Eurockot Launch Services GmbH HE Space Operations IABG Industrieanlagen-Betriebsgesellschaft mbH Insyen AG Internationaler Förderkreis für Raumfahrt – Hermann Oberth - Wernher von Braun e.V. Kayser-Threde GmbH MT Aerospace AG OHB System AG University of Würzburg ZARM Fab GmbH
Hungary	Hungarian Astronautical Society (MANT)
Isle of Man	International Institute of Space Commerce (IISC)
Italy	Alta S.p.A. Associazione Italiana di Aeronautica e Astronautica (AIDAA) CGS S.p.A. Compagnia Generale per lo Spazio CIRA Italian Aerospace Research Centre Italian National Research Council - CNR Italian Space Agency (ASI) Politecnico di Torino Techno System Developments S.r.l. Telespazio S.p.A. Thales Alenia Space Italia University of Naples Federico II
Lithuania	Lithuanian Space Association (LSA)
Luxembourg	SES

Norway	Andøya Rocket Range Kongsberg Satellite Services AS Norsk Astronautisk Forening Norwegian Space Centre (NSC)
Poland	Polish Astronautical Society
Portugal	Centre for Aerospace Science and Technologies (CAST), University of Beira Interior Proespaço-The Portuguese Association of Space Industries
Romania	Commission d'Astronautique de l'Académie Roumaine Romanian Space Agency (ROSA) University POLITEHNICA of Bucharest, Research Center for Aeronautics and Space
Russia	Central Research Institute of Machine Building (FSUE/TSNIIMASH) Federal Space Agency (ROSCOSMOS) Khrunichev State Research and Production Space Center Lavochkin Association Moscow Aviation Institute Russian Academy of Sciences S.P. Korolev Rocket and Space Corporation Energia Samara Space Centre "TsSKB-Progress"
Spain	Agrupación Astronáutica Española Centro para el Desarrollo Tecnológico Industrial (CDTI) Deimos Space S.L. EADS CASA Espacio S.L. GMV Instituto Nacional de Técnica Aeroespacial (INTA) SENER Ingeniería y Sistemas, S.A. University of Valencia University of Vigo
Sweden	Ångström Aerospace Corporation (AAC) RUAG Space SSC Swedish Society for Aeronautics and Astronautics Volvo Aero Corporation
Switzerland	Ecole Polytechnique Fédérale de Lausanne (EPFL) SwissSpace Association
The Netherlands	Delft University of Technology (TU Delft) Dutch Space International Association for the Advancement of Space Safety (IAASS) National Aerospace Laboratory (NLR) Netherlands Space Office (NSO) Netherlands Space Society (NVR) SpaceNed TNO
Ukraine	National Space Agency of Ukraine (NSAU) Yuzhnoye State Design Office
United Kingdom	Association of Specialist Technical Operators in Space (ASTOS) Astrium UK Space Enterprise Partnerships Limited Surrey Satellite Technology Ltd (SSTL) The British Interplanetary Society (BIS) UK Space Agency VEGA

Latin America and the Caribbean

Argentina	Comisión Nacional de Actividades Espaciales (CONAE) Federación Argentina Astronáutica (FAA) Invap S.E.

Brazil	Brazilian Space Agency (AEB) Instituto de Aeronáutica e Espaço (IAE) Instituto Nacional de Pesquisas Espaciais (INPE)
Colombia	Agustin Codazzi Geographic Institute
Ecuador	Ecuadorian Civilian Space Agency (EXA)
Mexico	Agencia Espacial Mexicana (AEM) Ramirez de Arellano y Abogados, S.C. Law Firm School of Engineering, UNAM
Uruguay	Centro de Investigación y Difusión Aeronáutico-Espacial (CIDA-E)
Northern America	
Canada	Canadian Aeronautics & Space Institute (CASI) Canadian Space Agency Canadian Space Society MDA Corporation Neptec Design Group Ltd. Space Canada Corporation
United States	Aerojet-General Corporation American Astronautical Society (AAS) American Institute of Aeronautics and Astronautics (AIAA) Center for Strategic and International Studies (CSIS) Department of Space Studies, University of North Dakota Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST) Georgia Institute of Technology, School of Aerospace Engineering International Lunar Observatory Association Law Office of Sterns and Tennen Lockheed Martin Corporation Microcosm, Inc. National Aeronautics and Space Administration (NASA) National Oceanic and Atmospheric Administration (NOAA) Northrop Grumman Space Technology Odyssey Space Research Project Management Institute Rocket Research Institute Secure World Foundation Sirius XM Radio South Dakota School of Mines and Technology Space Policy Institute, George Washington University Space Systems/Loral The Aerospace Corporation The Boeing Company The Johns Hopkins University Applied Physics Laboratory The Planetary Society U.S. Geological Survey (USGS) United Space Alliance (USA) University of Alabama in Huntsville (UAHuntsville) Virgin Galactic LLC World Space Week Association Wyle X PRIZE Foundation
Oceania	
Australia	CSIRO Astronomy & Space Science Engineers Australia RMIT University Space Policy Unit, Department of Innovation, Industry, Science and Research Victorian Space Science Education Centre

Members of IAF Bureau

PRESIDENT
Berndt Feuerbacher
Professor,
DLR, Germany

PAST-PRESIDENT
James V. Zimmerman
President,
International Space Services, United States

GENERAL COUNSEL
Vladimir Kopal
Professor of Law,
West Bohemian University, Czech Republic

HONORARY SECRETARY
Hans Hoffmann
Director,
ORBComm, Germany

VP: IAC EVOLUTION, IPC
Maria Antonietta Perino
Head of Advanced Exploration Programmes,
Infrastructures and Transportation Systems, Thales Alenia Space Italia, Italy

VP: INDUSTRY RELATIONS AND MEMBERS
J. Patrick Schondel
Vice-President,
Business Development Space Exploration, The Boeing Company, United States

VP: HONOURS AND AWARDS
V.S. Hedge
Chairman and Managing Director,
Antrix Corporation, India

VP: INSTITUTIONAL RELATIONS AND MP LIAISON
Jean-Jacques Dordain
Director General,
European Space Agency, France

VP: TECHNICAL ACTIVITIES
Tetsuo Yasaka
Professor Emeritus,
Department of Aeronautics and Astronautics, Kyushu University, Japan

VP: INTERNATIONAL ORGANISATIONS RELATIONS AND DEVELOPING COUNTRIES
Gérard Brachet
Space Policy Consultant,
Sic Itur, France

VP: WEB OUTREACH AND SOCIETIES
Marc Heppener
President,
Netherlands Society for Aerospace, The Netherlands

VP: FINANCE
David Kendall
Director General,
Space Science, Canadian Space Agency, Canada

VP: YOUTH AND WORKFORCE DEVELOPMENT
Lyn Wigbels
Executive Vice-President,
American Astronautical Society, United States

VP: INTERNATIONAL RELATIONS
Jie Yuan
Vice-President,
China Aerospace Science and Technology Corporation (CASC), China

SPECIAL ADVISOR TO THE IAF PRESIDENT
Anne-Marie Mainguy
Office National d'Etudes et de Recherches Aérospatiales (ONERA), France

PRESIDENT IAA
Gopalan Madhavan Nair
International Academy of Astronautics; Department of Space, Indian Space Research Organisation, India

PRESIDENT IISL
Tanja Masson-Zwaan
International Institute of Air and Space Law, University of Leiden, The Netherlands

EXECUTIVE DIRECTOR
Christian Feichtinger
International Astronautical Federation, France

IAF Secretariat

Christian Feichtinger, Executive Director
Philippe Moreels, Deputy Executive Director and Industry Relations Manager
Juliane McCarty, Public Affairs and Communications Officer
Lisa Antoniadis, Programmes Officer
Valerie Leenhardt, Administrative Assistant
Myriam Morabet, Technical Activities Officer
Armelle Dutruc-Laputraz, Administrative Support Officer
Vanya Angelova, Public Affairs and Communications Officer

2.2 The International Academy of Astronautics (IAA)

The International Academy of Astronautics (IAA) was founded in 1960 by Theodore von Karman. The Academy is an independent international community of leading experts committed to expanding the frontiers of space, the newest realm of human activity. To foster the development of astronautics, the Academy undertakes a number of activities, including the recognition of outstanding contributors through elections and awards. It also facilitates professional communication, develops and promotes new ideas and initiatives, engages the public, and fosters a sense of community among the members. The IAA is a unique non-governmental organisation established in 1960 and recognised by the United Nations in 1996.

It is an honorary society with an action agenda. With 1200 elected members and corresponding members from 87 nations, it works closely with space agencies, industry, the academic community and the national science and engineering academies to determine needs and objectives and to help shape policy and forge cooperation by means of studies, position papers, conferences and publications. The IAA has published 52 studies to date and is engaged in the preparation of 40 others. The Academy also publishes the journal Acta Astronautica containing refereed papers.

The Academy now organises 20 conferences per year and regional meetings focused on the development and promotion of new initiatives. This activity also includes, in cooperation with the International Astronautical Federation and the International Institute of Space Law, the traditional contribution to the International Astronautical Congress (IAC), where the Academy sponsors 13 Symposia. The Academy also continues to enjoy its participation in the COSPAR Assemblies by sponsoring and co-sponsoring symposia. Although the IAA has many connections to these and other similar organisations, it is distinctive as the only international Academy of elected members in the broad area of astronautics and space.

1st IAA Conference on Dynamics and Control of Space Systems, Porto, Portugal, 19-21 March 2012

International Academy of Astronautics
6 rue Galilee
75016 Paris, France

Mailing address:
P.O. Box 1268-16
75766 Paris Cedex 16, France

T: +33 1 47 23 82 15
F: +33 1 47 23 82 16
W: www.iaaweb.org
E: sgeneral@iaamail.org
IAA Shop: http://shop.iaaweb.org

Board of Trustees of the International Academy of Astronautics

PRESIDENT
Gopalan Madhavan Nair
India

VP AWARDS & MEMBERSHIP
Yannick d'Escatha
France

VP SCIENTIFIC ACTIVITIES
Anatoly Perminov
Russia

VP FINANCE
Hiroki Matsuo
Japan

VP PUBLICATIONS & COMMUNICATION
Liu Jiyuan
China

SECRETARY GENERAL
Jean-Michel Contant
France

LEGAL COUNSEL
Vladimir Kopal
Czech Republic

TRUSTEES SECTION 1, BASIC SCIENCES
Stamatios M. Krimigis
USA
Chairman

TRUSTEES SECTION 2, ENGINEERING SCIENCES
Byrana Suresh
India
Chairman

TRUSTEES SECTION 3, LIFE SCIENCES
Rupert Gerzer
Germany
Chairman

TRUSTEES SECTION 4, SOCIAL SCIENCES
Peter Jankowitsch
Austria
Chairman

2.3 The International Institute of Space Law (IISL)

Founded in 1960, the International Institute of Space Law (IISL) is an independent non-governmental organisation dedicated to fostering the development of space law. In the pursuit of its stated purpose, the IISL organises meetings, colloquia and competitions on legal and social science aspects of space activities, oversees the preparation and commissioning of studies and reports, and publishes books and proceedings on space law. The membership of the Institute is composed of individuals and institutions from more than forty countries who have been elected on the basis of their contributions to the field of space law or other social sciences related to space activities.

The IISL holds its annual Colloquium on current issues in space law at the International Astronautical Congress. The IISL Proceedings, containing papers presented at the Colloquium as well as many other IISL events, are published annually, as of this year by Eleven International Publishing. During the IAC, the IISL co-organises annual Scientific-Legal Roundtables with the International Academy of Astronautics (IAA), the 27th of which will be held this year in Naples. The themes of the sessions of this year's Colloquium can be found elsewhere in this programme.

The IISL is an officially recognised observer at sessions of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) and organises an annual symposium for the delegates of the COPUOS Legal Subcommittee with the European Centre for Space Law. Since 2001, the Institute has organised dedicated space law conferences in several countries, including Singapore, China, India, Thailand, France and the USA. It has also organised the annual Eilene M. Galloway Symposium on Critical Issues in Space Law in Washington, DC, since 2006, in cooperation with the National Center for Remote Sensing, Air, and Space Law in Mississippi, USA. The IISL issues Statements that inform the debate on the most pressing issues in the field of space law. During the annual Colloquia, the IISL strives to address topics that are of interest to all space actors and invites all IAC attendees to attend and participate in its sessions.

Since 1992, the IISL has organised the Manfred Lachs Space Law Moot Court Competition. The competition is based on a hypothetical space law case. The competition is an important part of the organisation's outreach programme, and its principal mechanism for engaging future generations of space law experts. Student teams from Europe, North America, the Asia Pacific and Africa participate. Preliminary competitions are held each spring in the different regions. The regional champions then compete in the World Finals, which take place at the IAC and are judged each year by judges of the International Court of Justice. This unique feature makes the Manfred Lachs Moot Court one of the most prestigious moot court competitions in the world.

We hope to see many of you during our 55th Colloquium in Naples and look forward to many enriching debates and exchanges!

International Institute of Space Law
94 bis, av. de Suffren,
75015 Paris, France
E: info@iislweb.org
W: www.iislweb.org

IISL Board of Directors 2011-2012

OFFICERS

PRESIDENT
Tanja L. Masson-Zwaan
The Netherlands

VICE-PRESIDENT
Jonathan Galloway
United States

VICE-PRESIDENT
K.R. Sridhara Murthi
India

EXECUTIVE SECRETARY
Corinne M. Jorgenson
France

TREASURER
Dennis J. Burnett
United States

BOARD OF DIRECTORS

Elisabeth Back Impallomeni (Italy)
Frans G. von der Dunk (The Netherlands)
Steven Freeland (Australia)
Joanne Irene Gabrynowicz (United States)
Stephen Hobe (Germany)
Mahulena Hofmann (Czech Republic)
Ram Jakhu (Canada)
Anatoly Y. Kapustin (Russia)
Toshio Kosuge (Japan)
Francis Lyall (United Kingdom)
Sergio Marchisio (Italy)
Sylvia Ospina (Colombia/United States)
Sang-Myon Rhee (Korea)
Kai-Uwe Schrogl (Germany)
Maureen Williams (Argentina)
Haifeng Zhao (China)

PRESIDENTS EMERITI

I. H. Ph. Diederiks-Verschoor (The Netherlands)
N. Jasentuliyana (Sri Lanka)

HONORARY DIRECTORS

Karl-Heinz Boeckstiegel (Germany)
Aldo Armando Cocca (Argentina)
Stephen E. Doyle (United States)
Ernst Fasan (Austria)
Peter Jankowitsch (Austria)
Vladimir Kopal (Czech Republic)
Gabriel Lafferranderie (France)
Nicolas Mateesco Matte (Canada)
Jose Monserrat Filho (Brazil)
Priyatna Abdurrasyid (Indonesia)
Patricia M. Sterns (United States)
Vladlen S. Vereshchetin (Russia)
Eugeniusz Wyzner (Poland)
Gennady P. Zhukov (Russia)

2.4 The Local Organising Committee (LOC)

The LOC is composed of the following institutional representatives:

Enrico Saggese
ASI, President

Mario Raffa
Naples Municipality
Institutional Committee

Liliana Boccolini Napolitano
LOC, Honorary President

Gennaro Famiglietti
Naples Province
Institutional Committee

Antonio Moccia
University of Naples Federico II
IPC Co-Chair

Giovanni Squame
Naples High Tech Pole
Institutional Committee

Norberto Salza
Naples High Tech Pole
LOC, Executive Director

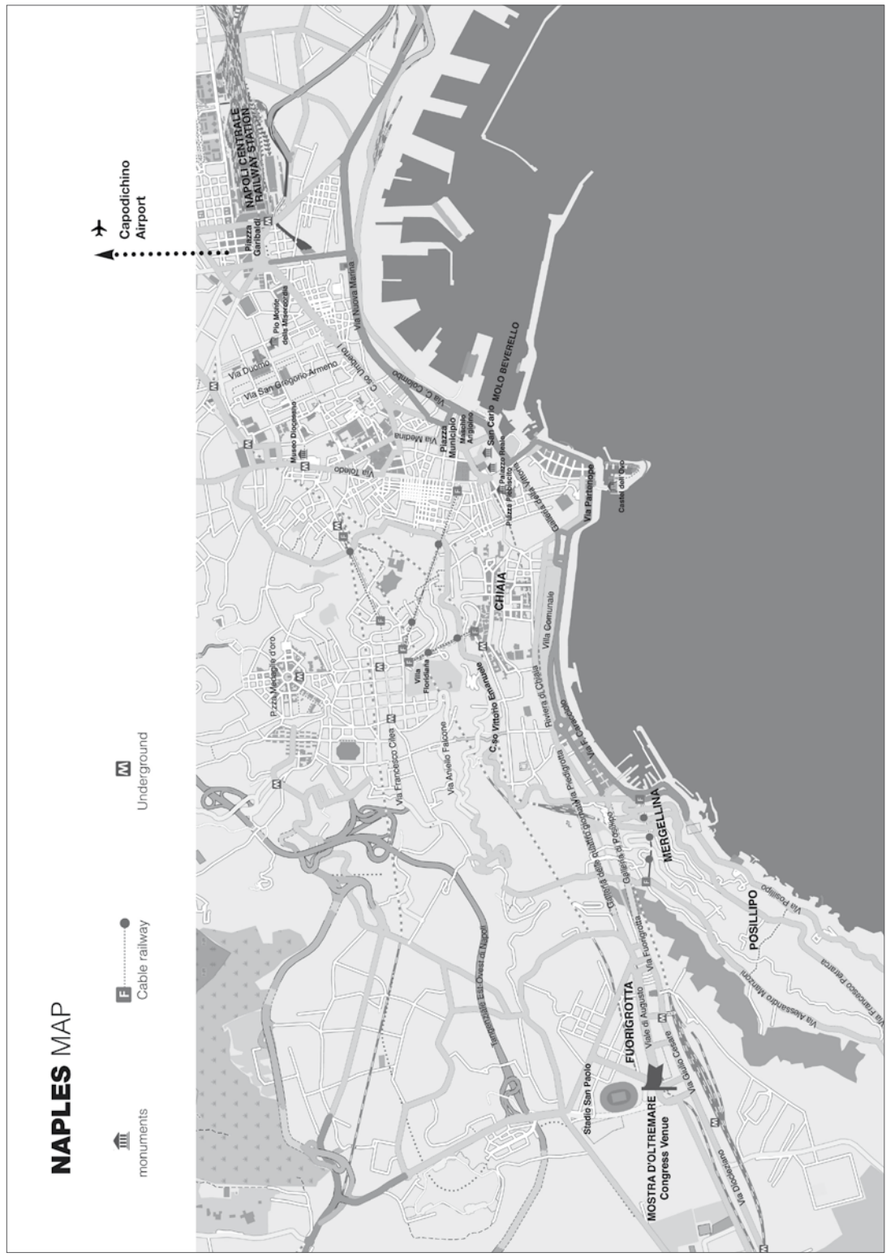
Leopoldo Verde
CIRA
Space Expo

Luigi Carrino
Campania Region
Institutional Committee

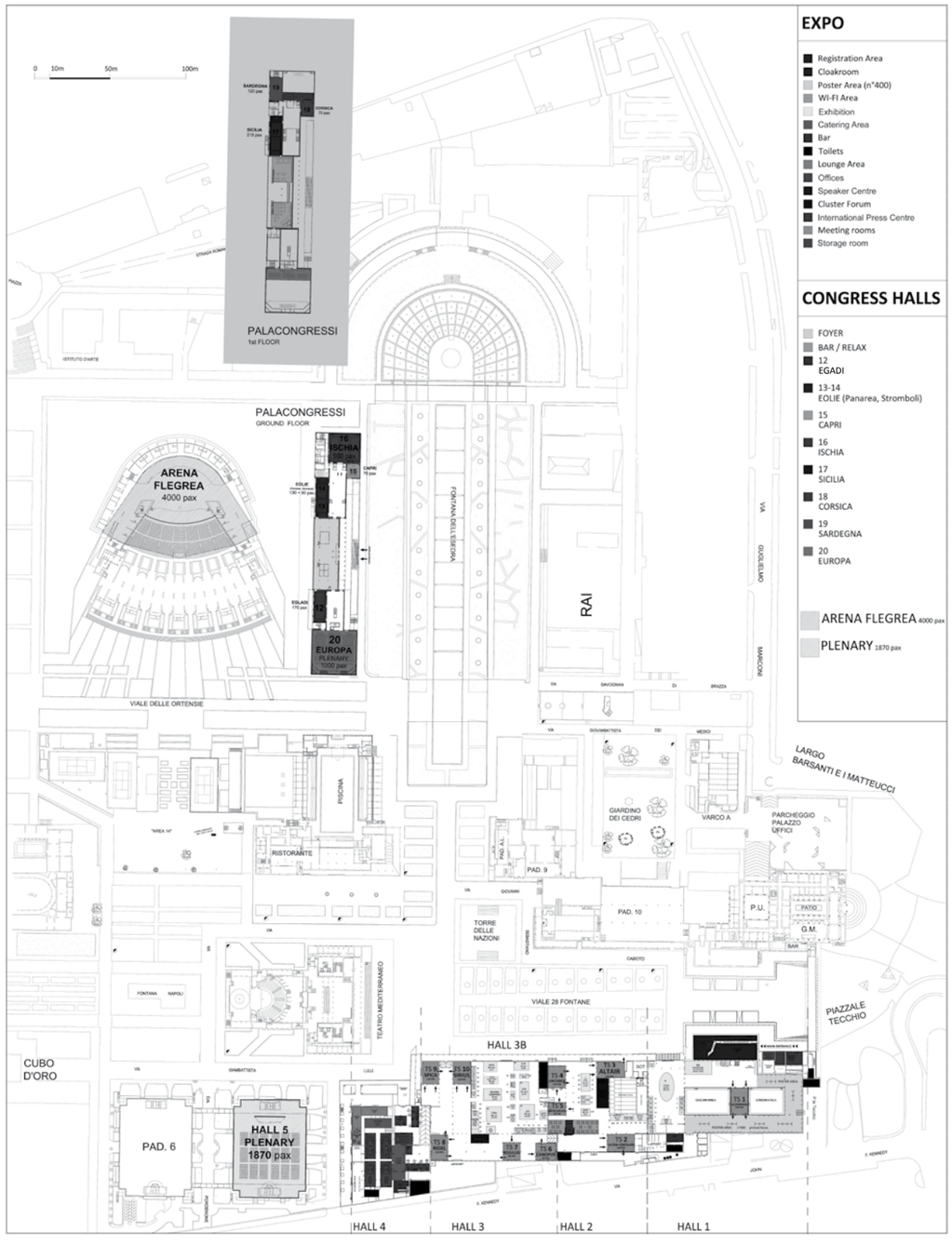
Carlo Cigliano
Mostra D'Oltremare
Congress Venue

3 Practical Information

3.1 City Map of Naples



3.2 Mostra d'Oltremare Floor Plan



3.3 Registration

Registration Fees

Registration Fees	Cost – 21% VAT included		
	Before 1 August 2012	From 1 August to 20 September 2012	On-Site
Full-paying participants	730€	835€	900€
Full-paying participants who are employees or elected officers of an IAF member organisation or current members of the IAA or IISL	630€	765€	815€
Retired persons meeting the IAF's minimum requirements*	365€	440€	490€
Young professionals (no older than 35 years of age at the time of the Congress)**	265€	300€	330€
Full-time students (no age limit)***	50€	60€	70€
Primary and Secondary School Teachers****	50€	60€	70€
Accompanying Persons	50€		
Media Representatives	Free of charge		

Eligibility and Requirements

* In order to qualify for the retired person rate, applicants need to be over 60 years old and are requested to provide a copy of their passport.
** Young professionals are requested to provide a copy of their passport.
*** Students are requested to provide a copy of their Student ID Card.
**** Teachers are requested to provide a letter from the Headmaster of the school where they work proving they are employed in that school.

What is covered by the fee?

All categories (excluding Accompanying Persons):

- congress documentation,
- admission to the Prologue, the Opening and Closing Ceremonies,
- access to the Technical and Public Programme,
- access to the Space Exhibition,
- access to the Welcome Reception and
- coffee breaks from Sunday, 30 September to Friday, 5 October 2012.

Accompanying Persons:

- admission to the Opening and Closing Ceremonies,
- access to the Space Exhibition,
- access to Plenary Events and Highlight Lectures,
- access to the Welcome Reception and "Campania >artecard" to use Naples public transport service for three days.

Media representatives who wish to register on-site are kindly requested to present their press ID and to fill in the media registration form at the registration desk.

Name Badges

Black: Organiser
Orange: Local Organiser
Blue: Delegate
Yellow: Media
Grey: Accompanying Person
Green: Exhibitor
Brown: Young Professional
Pink: Student
Light Blue: Teacher

3.4 Information for Authors

All authors are asked to upload their manuscripts and multimedia presentations prior to the Congress in order to make them available to all participants on the *Interactive Congress Guide DVD*. You can still update your manuscripts and multimedia presentations with the latest developments through the IAF website or in the Speaker Centre (Hall 3).

Your presentation will be automatically preloaded on the computer in the Technical Session room. Please note that speakers are not allowed to insert USB memory sticks or CD-ROMs into the computers in the Technical Session rooms. Therefore, all updates need to be uploaded on the day before the Technical Session takes place, prior to 18:00 local time. Later changes cannot be reflected in your final presentation.

The Speaker Centre is equipped with computers (MS Windows XP–compatible) with CD/DVD drives and USB ports. It will be open during the following hours: Sunday, 30 September – Friday, 5 October, 08:00 – 17:00.

Our help desk team will assist you in uploading multimedia presentations during operating hours.

Speakers are requested to report to their allocated Technical Session room 20 minutes prior to the start of their session to meet with the Session Chair and to check their presentation. Do not forget to bring two printed courtesy copies of your manuscript and a backup copy of your presentation. Some Session Chairs might also ask you for a short biography to introduce you at the session.

3.5 Office Opening Hours

IAF Office
Location: Hall 4
Friday, 28 September
14:00 – 18:00
Saturday, 29 September – Friday, 5 October
08:00 – 18:00

IAA Office
IAA Office
Location: Hall 4
Saturday, 29 September – Thursday, 4 October
09:00 - 17:00

IISL Members' Room
Location: Hall 4
Monday, 1 October – Wednesday, 3 October
09:00 – 18:00
Thursday, 4 October
09:00 – 13:00
Friday, 5 October
09:00 – 12:00

LOC Office
Location: Hall 4
Friday, 28 September – Friday, 5 October
08:00 – 18:00

IAF Members' Lounge
Location: Hall 4
Sunday, 30 September – Friday, 5 October
08:00 – 18:00

Registration, Message and Info Desk
Location: Hall 1
In order to register, please bring along your letter of confirmation, which entitles you to pick up your Congress documents.

Saturday, 29 September
08:00 – 18:00
Sunday, 30 September
08:00 – 19:00
Monday, 1 October – Thursday, 4 October
08:00 – 18:00
Friday, 5 October
08:00 – 17:00

International Press Centre
Location: Hall 3
Saturday, 29 September
13:00 – 20:00
Sunday, 30 September – Thursday, 4 October
07:30 – 20:00
Friday, 5 October
07:30 – 17:00

Press Briefing
Location: Stromboli (Palacongressi)
Sunday, 30 September
17:00

Speaker Centre
Location: Hall 3
Sunday, 30 September – Friday, 5 October
08:00 – 17:00

Exhibition Hall
Location: Hall 1-3
Monday, 1 October - Wednesday, 3 October
11:00 - 18:30
Thursday, 4 October - Friday, 5 October
10:00 - 18:30

Congress Organiser (Studio Ega & Triumph)
Location: Hall 1
Saturday, 29 September
08:00 – 18:00
Sunday, 30 September
08:00 – 19:00
Monday, 1 October – Thursday, 4 October
08:00 – 18:00
Friday, 5 October
08:00 – 17:00

3.6 At the Congress Centre

Posters
The Poster Sessions will take place Tuesday, 2 October to Thursday, 4 October from 13:15 to 14:00 in the Poster Area in Exhibition Hall 1.

Internet
Wireless internet connection will be available free of charge throughout the Congress venue.

3.7 City of Naples

Approaching from the sea, you come upon Naples with the same viewpoint as Ulysses who fled from the enchantment of Circe and continued the adventurous enterprise of his return journey. Ulysses surveyed the extraordinary beauty of the gulf which embraces the city, almost like a pearl between shells. This beauty seems unspoiled, like the Siren “Parthenope” herself, who, legend says, lived here.

As a result of three millennia of human activity and varied cultures, Napoli is an amalgam of Greek and Roman, Byzantine and Lombard, Norman and Swabian, Angevin and Aragonese, Spanish and Italian. It is not simply a location in space but the continuing presence of many ages. Enter and lose yourselves in the forests of historical diversity, and at the same time become involved in its modern everyday life.

Napoli has gathered together the poetic souls of the West, Classical, Renaissance and modern. Alive and working, with its passions and its splendour, both ancient and ahead of its time, the always new “Nea-poli” is also a city of imagination and a place for fantasy.

Napoli is not only the city, but also the rich constellation of sites around the gulf that surrounds it: Herculaneum and Pompeii, unearthed from the matter spewed out by Vesuvius; the Sorrento coast which curves breathtakingly back into the gulf with its basalt cliffs overhanging the sea; and the coastline of Positano and Amalfi, enthroned on their harsh magnificence. Facing the two opposite points of the gulf are two seductive sentries, the islands of Ischia and Capri.

Goethe was right when he noted “... in Naples one does not wish anything but life; we forget ourselves and the universe; and for myself, it is a rather odd sensation to have dealings only with men interested in pleasure and culture and nothing else”.

3.8 Useful Information

3.8.1 Climate

The south of Italy has a Mediterranean climate. Spring and early autumn are the best seasons to visit Naples as temperatures are mild, but still warm.

3.8.2 Credit Cards

Credit and debit cards can be used in ATMs (which are widespread and known locally as *bancomat*) displaying the appropriate sign. Credit cards can also be used in many supermarkets, hotels and restaurants. When you withdraw money from an ATM, the amounts are converted and dispensed in local currency; however, there will be fees involved.

3.8.3 Currency

Italy’s official currency is the Euro. The Euro is divided into cents. Coin denominations are one, two, five, 10, 20 and 50 cents, €1 and €2; the banknotes are €5, €10, €20, €50, €100, €200 and €500. For the latest exchange rates check www.xe.com. Currency can be exchanged at all local banks. Banks are open from 08:30 to 13:30 and 14:45 to 16:30 Monday to Friday. ATM machines are located throughout the city.

3.8.4 Electricity

Most electrical outlets in Italy work on 220V. Foreign appliances may require an adapter that can be bought at electrical shops.

3.8.5 Emergency

Police - Tel. 112/113
Ambulance - Tel. 118
Fire - Tel. 115

At Naples main police station (address: Via Medina, 75) there is an office for foreigners.
Tel. +39 081 7941111

3.8.6 Medical Services

Italy has a public health system that is legally bound to provide emergency care to everyone. EU nationals are entitled to reduced cost, sometimes free, medical care with a European Health Insurance Card (EHIC), available from your home health authority; non-EU citizens should purchase medical insurance. For emergency treatment, go straight to the SOS section of a public hospital, where it is also possible to receive emergency dental treatment. For less serious ailments call the local *guardia medica* (duty doctor).

3.8.7 Taxes

Like most other European countries, Italy imposes a value added tax (VAT) on most goods and services purchased in the country. This tax is known as IVA. It is normally included in the price of most goods and services. The rate stands at 21%; 10% for catering services.

3.8.8 Telephone

Dial 00 to get out of Italy, then the relevant country and area codes, followed by the telephone number. To make a reverse-charge (collect) international call, dial 170. All operators speak English. To call Italy from abroad, dial +39 and then the area code.

3.8.9 Time

Naples is one hour ahead of Greenwich Mean Time (GMT). Differences with other major cities are London: -1 hour; New York City: - 6 hours; Sydney: + 10 hours; Tokyo: + 8 hours

3.8.10 Tipping

Service is included in the bill in bars and restaurants. Tipping is not mandatory but is welcomed. Most of the time a service charge *(servizio)* is included in your restaurant bill. This should not be confused with the cover charge *(coperto)*, which is a charge for bread and table settings.

3.8.11 Shops, Pharmacies, Restaurants, Museums

Shops in Naples generally open from 09:30 to 13:30 and 16:30 to 20:00 Monday to Saturday. They may close on Saturday afternoons or Monday mornings. Most department stores and supermarkets have continuous opening hours from 09:00 to 20:30 Monday to Saturday. Some even open from 09:00 to 13:00 on Sunday.

Pharmacies are open from 09:00 to 13:00 and 16:00 to 19:30 Monday to Friday. Most close on Saturday afternoons and Sundays, but some remain open on a rotation basis. All closed pharmacies are obliged to display a list of the nearest ones that are open.

Restaurants open from 12:00 to 15:00 and 19:30 to 23:00. Restaurants and bars are required to close for one day each week.

For opening hours of **museums, galleries and archaeological sites** visit:
www.inaples.it/public/quinapoli/quinapoli.pdf
www.comune.napoli.it/flex/cm/pages/ServeBLOB.php/L/EN/IDPagina/16991?500e71fd1b5e9

3.8.12 Smoking policy

Smoking is banned in all indoor public places and in all workplaces.

4 Exhibition

4.1 Exhibition Schedule

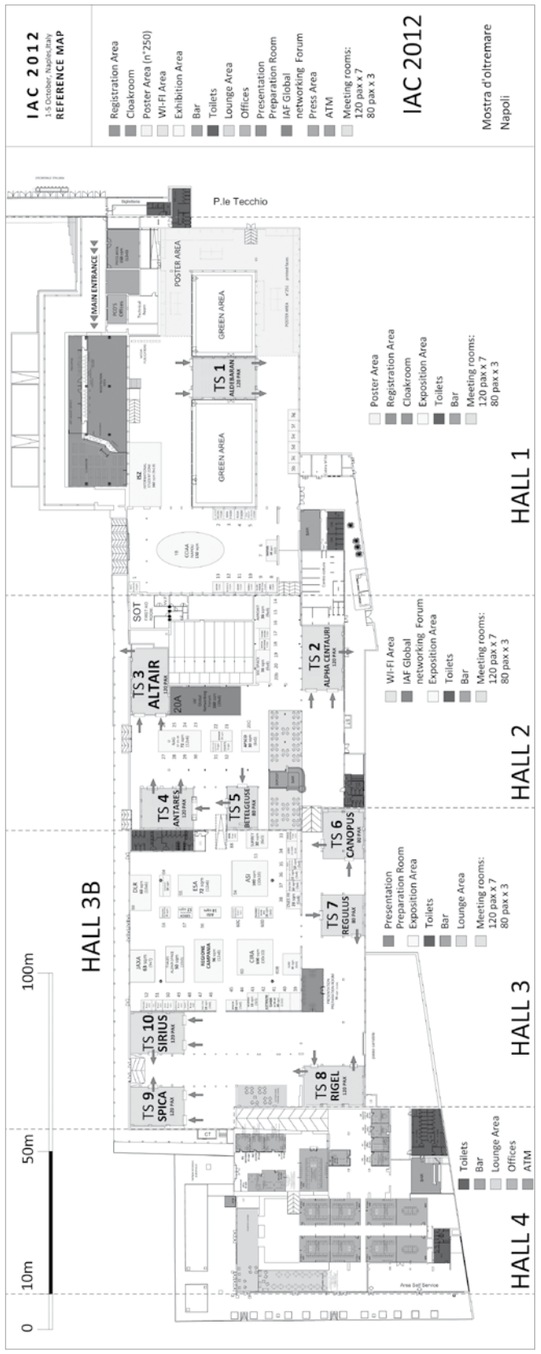
Stand Set-up: *Delivery of Exhibits and Stand Construction*		
	Friday, 28 September - Sunday, 30 September	09:00 – 20:00
	Set up for pre-set booths: Sunday, 30 September	09:00 – 20:00
	All stands must be completed by Sunday, 30 September	20:00
Exhibition Hours:		
	Monday, 1 October - Wednesday, 3 October	11:00 – 18:30
	Thursday, 4 October	10:00 – 18:30
	Friday, 5 October	10:00 – 17:00
Public Day:		
	Friday, 5 October	10:00 – 17:00
Stand Dismantling:		
	Saturday, 6 October - Sunday, 7 October	09:00 – 20:00

4.2 Exhibitors in alphabetical order

Exhibitors	Stand	Hall
Active Space Technologies	60C	3 B
AEROJET	14-15-16	2
AIPAS	8	1
AISI	56	3 B
American Institute of Aeronautics and Astronautics	3	1
ARIANESPACE	64	3 B
ASI - Agenzia Spaziale Italiana	54	3 B
Asia Pacific Space Cooperation Organization (APSCO)	8	1
ASTRIUM	39-42	3 B
Astro und Feinwerktechnik Adlershof	49	3 B
Berlin Space Tech	58	3 B
Campania Region	61	3 B
Canadian Space Agency	46-47	3 B
China Head Aerospace Technology	31	2
Chinese Society of Astronautics (CSA)	2	1
CIRA - Italian Aerospace Research Centre	60	3 B
Cluster Forum	20 A	2
CNES	38	3 B
Critical Software	18	1
Czech Space Office	57	3 B
DLR Deutsches Zentrum fur Luft und Raumfahrt e V	59	3 B
EMXYS	32	2
ESA - European Space Agency	55	3 B
G.A.U.S.S.	12	1
GEO-Informatics and Space Technology Development Agency (GISTDA) Thailand	13	1

Exhibitors	Stand	Hall
GMA - Axitude	88	3
HE Space Operations	43	3 B
Holland Pavilion	23-30	2
IABG	34	3 B
International Space University (ISU) International Institute of Space Commerce	37	3
Israel Aerospace Industries	35	3 B
ISZ- International Students Zone	1A	1
Japan Aerospace Exploration Agency (JAXA)	63	3 B
Kari - Korea Aerospace Research Institute	60 B	3 B
MARSec	10	1
Rafael	6-7	1
Robert A. and Virginia Heinlein Prize Trust	9	1
Romanian Space Agency ROSA	4	1
Semelab - a division of TT Electronics	36	3 B
SIMEST	11	1
Space Generation Advisory Council (SGAC)	50	3 B
SpaceX	44-45	3 B
Springer	21-22	2
SSC Group	19-20 -20 B	2
Steel Electronique	51	3 B
Surrey Satellite Technology	53	3 B
Syrlinks	52	3 B
Techno System Developments	17	2
The Australian Government Space Policy Unit	48	3 B
The British Interplanetary Society - UK Pavilion	60D	3B

4.3 Exhibition Hall Layout



4.4 Exhibitor List by Stand Number

Stand No: **1 A**	**ISZ - International Student Zone**
Hall 1	*Contact:* ***Jason Clement***
	Canadian Space Agency 6767 route de l'Aéroport St-Hubert, Québec J3Y 8Y9 **Tel:** +1 450 926 4532 **Email:** Email : jason.clement@asc-csa.gc.ca
	The majority of ISEB Student Programme activities including the Heads of Agency student event and daily lunchtime panel sessions take place at the International Student Zone (ISZ), located in the heart of the exhibit area. This facility was designed with student needs in mind and with the expectation that it be THE hub for student activity for the duration of the IAC. At the ISZ students make connections with their peers from around globe. They are encouraged to identify professionals in their field and invite them to the ISZ for discussions and networking opportunities. They may even develop research collaborations! Activities taking place at the Student Zone are **open to all students** attending the Congress.
Stand No: **1 B**	**Eurosportello – Special Agency of Naples Chamber of Commerce, Industry, Craftsmanship and Agriculture**
Hall 1	*Contact: Riccardo de Falco*
	Corso Meridionale 58 80143 Naples Italy **Tel:** +39 081 284217 **Fax:** +39 081 287675 **Email:** r.defalco@Eurosportello.na.camcom.it **Web:** www.Eurosportello.napoli.it
	Eurosportello is a Special Agency of the Naples Chamber of Commerce, Industry, Craftsmanship and Agriculture created to promote the Europeanisation and internationalisation processes of local enterprises. Eurosportello is also the contact point of the European Commission Network "Enterprise European Network (EEN)", whose objective is to help SMEs to develop their potential in competitiveness, innovation and internationalisation. The information service of Eurosportellois certified by quality system and complies with rule UNI EN ISO 9001:2008 since 2005.
Stand No: **2**	**Chinese Society of Astronautics (CSA)**
Hall 1	*Contact:* ***Jinyu Gong***
	No.8 Fucheng Road Haidian District P.O.Box 838 Beijing 100048 China **Tel:** +86 10 68371700 **Fax:** +86 10 68768624 **Email:** gongjinyu@vip.sina.com **Web:** www.csaspace.org.cn
	Chinese Society of Astronautics was founded in 1979. It is a national non-governmental academic organization. CSA has 33 academic committees, 177 institutional members and 23427 individual members across China. The objectives of CSA are to expedite the development and popularization of space science/technology, to promote the training of the astronautical professionals and technicians and the updating of their knowledge. CSA edits, publishes and distributes Journal of Astronautics and Space Exploration Magazine. The main activities of CSA include national congress meetings, carrying out academic and non-governmental scientific/technical exchanges nationally and internationally, and conducting theoretical research to provide decision-making consulting, expert advice and technical transfer services.
Stand No: **3**	**American Institute of Aeronautics and Astronautics (AIAA)**
Hall 1	*Contact:* ***Megan Scheidt***
	1801 Alexander Bell Dr Reston, VA 20191-4344 USA **Tel:** +1 703 264 3842 **Fax:** +1 703 264 7551 **Email:** megans@aiaa.org **Web:** www.aiaa.org
	The American Institute of Aeronautics and Astronautics (AIAA) is the world's largest technical society dedicated to the global aerospace profession. With more than 35,000 individual members and 90 corporate members, AIAA brings together industry, academia, and government to advance engineering and science in aviation, space, and defence. AIAA is the principal voice, most knowledgeable information resource, and primary professional publisher for aerospace engineers, scientists, managers, policymakers, students and educators. AIAA is the resource of choice for stimulating professional accomplishment and standards-driven excellence in all areas of aerospace technology and applications.

Stand No: **4**	**Romanian Space Agency (ROSA)**
Hall 1	*Contact:* ***Mr. Marius-Ioan Piso,*** *President*

21-25 Mendeleev St.
010362 Bucharest
Romania

Tel: Tel: +40 21 3168722
Fax: Fax: +40 21 3128804
Email: Email : rosa-hq@rosa.ro
Web: Web : www.rosa.ro

Established in 1991, ROSA became an independent, contract-financed public institution in 1995, under the authority of the Romanian Ministry of Education, Research, Youth and Sports. ROSA's mission is to promote space development, coordinate the national space research and applications programmes, and, as a government representative, promote international co-operation.

ROSA serves as a project integrator and developer with the overall objectives of producing space science and technology, transferring results to users and generat ing physical and human infrastructure-capacity building. ROSA is authorised to develop specific project oriented research through its own centre and acts on behalf of the Romanian Government for ESA, EU – Space & Security Research, NATO - Science for Peace and Security and Space-related RTO issues. On 20 January 2011 Romania, represented by ROSA, signed its Accession Agreement to the ESA Convention, becoming the 19th ESA Member State

Stand No: **6-7**	**Rafael – Advanced Defense Systems LTD.**
Hall 1	*Contact:* ***David Abramovich*** *– Space Systems Directorate*

Rafael P.O. Box 2250
Haifa
31021
Israel

Tel: +972 4 8795189
Mobile: +972 528513456
Fax: +972 4 8792135
Email: davidav@rafael.co.il
Web: www.rafael.co.il

RAFAEL designs, develops, manufactures and supplies a wide range of advanced defence systems. These leading edge products include space propulsion products, microsatellites, naval, air and ground precision weapons, electro-optic systems, electronic warfare (EW) systems, Command, Control, Communications, Computers and Intelligence (C4I) breaching systems, counter-IED solutions and advanced protection systems. The company has also formed partnerships with civilian counterparts to develop commercial applications based on its proprietary technology. RAFAEL's space activities are focused on the following fields: space propulsion, micro-satellite technologies and Airborne launchers. The company currently has its propulsion modules or components in over a dozen satellites in orbit.

Stand No: **8**	**Associazione delle Imprese per le Attività Spaziali (AIPAS)**
Hall 1	*Contact:* ***Silvia Ciccarelli***

Via del Tempio 1
00186 Rome
Italy

Tel: +39 06 6869222
Fax: +39 06 6869222
Email: silvia.ciccarelli@aipas.it
Web: www.aipas.it

AIPAS was created in 1998 with the objective to serve the needs of Small and Medium sized companies operating in the space sector in Italy.

AIPAS is a No-Profit Association and it aims at:

- Promoting the networking among associated and non-associated members;
- Encouraging dialogue and cooperation between SMEs and large enterprises;
- Collaborating with ASI and ESA for the definition of an effective policy towards SMEs (MoU with ASI 2010-2013);
- Promoting in the various national and international centres the general interests of Space SMEs
- Participating and organising national and international events (IAC, EU SPACE SME WEEK, etc.)
- conducting a research activity focused on space industry with a specific focus on SMEs (FP7, ESA programmes, survey, etc.)

AIPAS is the founder of SME4SPACE, a panel of SME space Associations, named SME4SPACE, representing most of the ESA Member States (www.sme4space.org). In June 2007, ESA DG and SME4SPACE Chairman signed a Memorandum of Agreement.

Stand No: **8**	**Planetek Italia s.r.l.**
Hall 1	*Contact:* ***Daniela Drimaco***

Via Massaua 12
70132 Bari
Italy

Tel: +39 080 96 44 200
Fax: +39 080 96 44 299
Email: drimaco@planetek.it
Web: www.planetek.it

Planetek Italia is one of the main companies in Italy operating in the field of information sciences and space technologies applied to land management and space exploration. The Company is active in definition and implementation of software for space systems for EO and planetary missions and in the development of information solutions for storage, elaboration and distribution of satellite images and cartographic databases. Planetek provides "Ground Segment" systems and technologies to receive and process satellite data acquired by the spacecrafts instruments, engineering consulting services for new missions definition, feasibility studies and ground control system architecture definition. The Company designs, develops and provides real-time systems, on board processing software for the space segment, radar and optical data processing for the ground segment and mission planning and performance monitoring systems.

Stand No: **8**	**SITAEL S.p.A.**
Hall 1	*Contact:* ***Giovanni Tuccio***

S.P. 231 Km 1+300
70026 Modugno (BA)
Italy

Tel: +39 08 0532 1796
Fax: +39 08 0535 5048
Email: giovanni.tuccio@sitael.com
Web: www.sitael.com

SITAEL is an Italian Medium Enterprise specialized in design, development, production and qualification of Instruments, Electronics and Microelectronics Systems for a wide range of High Reliability Applications, from Ground to Space.

Counting on 140 high qualified employees and state-of-the-art facilities in Apulia and Tuscany regions, SITAEL is able to manage all stages of the production, offering turn-key highly safe and reliable solutions, according to ESA/NASA Standards.

SITAEL has successfully taken part in many International Projects (SENTINEL 3, SWARM, INTEGRAL, MSL-Curiosity, PAMELA, AMS-01/AMS-02, GAIA, ATV) and is currently involved in other International Programmes (MUSIS CSO, SENTINEL 1, COSMO Skymed 2nd generation, EarthCARE, ICESat-2, ASTRO-H, CALET, ExoMARS) in collaboration with the main Space Players (ESA, NASA, CNES, JAXA, ASI, Thales Alenia Space, EADS Astrium, OHB, Selex Galileo, COM DEV, RSC Energia).

Stand No: **9**	**Robert A. and Virginia Heinlein Prize Trust**
Hall 1	*Contact:* ***Sean Thompson***

3106 Beauchamp Street
Houston TX 77009
USA

Tel: +1 713 861 3600
Fax: +1 713 861 0637
Email: sean.thompson@dula.com
Web: www.heinleinprize.com

The purpose of the Heinlein Prize® Trust is to encourage and reward progress in commercial space activities that advance Robert and his wife Virginia's dream of humanity's future in space. The Trust supports other projects designed to encourage the long-term development of man in space such as the Have Spacesuit-Will Travel student programme, the Rice Business Plan Competition, and the Flight into the Future international contests.

The Heinlein Prize Trust represents a significant portion of the estate left by Robert and Virginia Heinlein including most of their literary properties. The Trust works to invest and maintain the Heinlein's assets and apply them to endeavours that encourage the Heinlein's goals and beliefs, guided by the overriding principle of "Pay it Forward."

Stand No: **10**	**MARSec S.p.A. (Mediterranean Agency for Remote Sensing and Environmental Control)**
Hall 1	*Contact:* ***Federica Rossi***

Via Perlingieri 1, c/o Villa dei Papi
82100 Benevento (BN)
ITALY

Tel: + 39 0824 316516
Fax: + 39 0824 316516
Email: federicar@marsdb.it
Web: www.marsec.it

MARSec is a satellite-monitoring center which provides, to public bodies primarily, products and value-added services using satellite data. Data is received, processed, stored and distributed directly by the Italian Space Agency. MARSec processes it: satellite signals are transformed into "products/services" or into data for analysis or used in various applications provided by public bodies. MARSec operates at regional, national and international level, as remotely-sensed data covers the entire Mediterranean, North European and North African areas.
Since 2012, MARSec has become a public/private company.

Stand No: **11**	**SIMEST S.p.A. – Società Italiana per le Imprese all'Estero**

Hall 1

Contact: ***Carlo de Simone,*** *Managing Director Assistant for Directional Relations*

Corso Vittorio Emanuele II, 323
00186 Rome
Italy

Tel: +39 06 68635826
Fax: +39 06 68635250
Email: c.desimone@simest.it
Web: www.simest.it

SIMEST is the development finance institution promoting the activities of Italian companies in Italy and abroad, especially SMEs. Set up as a limited company in 1991, SIMEST is headed by the Italian Government, along with private-sector shareholders. SIMEST promotes Italian investments and handles subsidies for the internationalisation of Italian businesses.

More in detail, SIMEST can acquire stakes in companies of up to 49% of their capital stock, either by investing directly or (for some geographical areas) through managing shares in Venture Capital Funds. SIMEST's holding enables the Italian business to access subsidies (interest contributions) to fund its holding in the overseas business (outside the European Union).

Moreover, in order to provide financial support to Italian businesses, SIMEST: supports export credits for investment goods produced in Italy; finances pre-feasibility and feasibility studies or technical assistance programmes; finances programmes to break into foreign markets; finances programmes for capitalizing SME exporters.

SIMEST also provides professional consultancy and technical support services, like scouting activities and matchmaking initiatives.

Stand No: **12**	**GAUSS Srl – Group of Astrodynamics for the Use of Space Systems**

Hall 1

Contact: ***Chantal Cappelletti***

via Lariana 5 00199
00199 Rome
Italy

Tel: +39 33 3620 0333
+39 07 7443 3161
Email: chantal.cappelletti@gaussteam.com
info@gaussteam.com
Web: www.gaussteam.com

GAUSS Srl company is a spin-off from the Astrodynamics Group School of Aerospace Engineering at the University of Roma Sapienza. It is involved in the design and manufacturing of small satellites, space debris observations and removal and launch services. Since the early 1990s, GAUSS group has launched and operated in orbit seven small satellites (UniSat class, EduSat and UniCubeSat-GG). It is also involved in the launch of CubeSats and PocketQubes from the UniSat platforms using PEPPOD and MRFOD Systems and in biomedical research in space. GAUSS is also a provider of spacecraft subsystems and mission analysis studies.

Stand No: **13**	**Geo-Informatics and Space Technology Development Agency (GISTDA)**

Hall 1

Contacts:
Soontaree Srisuwan
Wanawan Prayoonwet
Peerapat Akarakupt

120 The Government Complex
Commemorating
Building B 6th and 7th Floor
Chaeng Wattana Road, Lak Si
Bangkok 10210
Thailand

Tel: +66 2143 0556
Fax: +66 2143 9603
Email: soontree@gistda.or.th
wanawan@gistda.or.th
Peerapat@gistda.or.th
Web: www.gistda.or.th/gistda_n/en/

In 1982, the Thailand Ground Receiving Station was set up as first of its kind in Southeast Asia. Data are received from satellites such as LANDSAT, SPOT, NOAA, ERS and MOS. In 1993, the GIS Coordinating and Promotion Section was founded under the Information Center of Ministry of Science and Technology (MOST) in order to promote the use of GIS technology and to coordinate among users an attempt to set up GIS standards and a GIS Index Database for data exchange at national level. In order to enhance the utilisation of remote sensing and GIS, the Geo-Informatics and Space Technology Development Agency, GISTDA was established on 3 November, 2000 as a public organisation which assumes all responsibilities and activities for space technology and geo-informatics applications. The THailand Earth Observation Satellite (THEOS) is Thailand's first operational Earth observation satellite. The THEOS program was developed by GISTDA and EADS Astrium, the prime contractor, initiated work on the satellite in 2004. On October 1, 2008, THEOS was successfully launched by Dnepr launcher from Yasny, Russian Federation. Today, GISTDA is developing a worldwide network of distributors to allow the users to use and access all GISTDA products.

Stand No: **14-15-16**	**Aerojet**

Hall 2

Contact: ***Glenn Mahone***

2001 Aerojet Road
Rancho Cordova
CA 95742
USA

Tel: +1 703 650 0278
Fax: +1 703 650 0272
Email: glenn.mahone@aerojet.com
Web: www.aerojet.com

Celebrating its 70th anniversary this year, Aerojet is a world-recognized aerospace and defense leader principally serving the missile and space propulsion, defense, and armaments markets. Aerojet is committed to operational excellence and is able to produce a highly reliable and affordable solution to fit any of our customers' requirements. Aerojet produces a large array of solid rocket motors and liquid and electric propulsion for launch vehicles, satellites and in-space applications.

Stand No: **17**	**Techno System Developments**

Hall 2

Contact: ***Francesco Monti***

Via Provinciale Pianura 2
Zona Industriale San Martino int 23
80078 Pozzuoli
Naples
Italy

Tel: + 39 081 5263475
Fax: + 39 081 5262701
Email: fmonti@tsd-space.it
Web: www.tsd-space.it

Techno System developments is a private company specialised in design, development, manufacturing and testing of on board and ground electronic equipment for space applications. Continuous innovation, the capability to develop original & proprietary architectures and the use of state of art technologies allow TSD to deliver high performance equipment, focused on real time processing and small platform applications; the main products include:

- Electronics for Optical Payloads and Video Systems (Image Acquisition, Compression & Processing, Data Handling & Storage)
- Spacecraft Avionics (Command & Data Handling Systems, On Board Computers, Remote Terminal Units, Power Management Systems)
- Control and Data Acquisition/Management Systems for Scientific Payloads & Instruments
- Ground Segment (EGSE, SCOE)

TSD track record includes flight proven applications for Satellites, Capsules, ISS, Sounding Rockets, UAV/USV, Stratospheric Balloon.

Stand No: **18**	**Critical Software, SA**

Hall 1

Contact: ***Nuno Silva***

Parque Industrial de Taveiro, Lote 48
3045-504 Coimbra
Portugal

Tel: +351 239 989 100
Fax: +351 239 989 119
Email: nsilva@criticalsoftware.com
Web: www.criticalsoftware.com

Critical Software is an international company providing dependable solutions, services, and technologies for business critical information systems, and providing software tools that protect individuals, monitor equipment safety and guarantee that business-critical processes are carried out in a secure and efficient way. Critical Software's solutions help companies control their costs and improve performance by providing the real-time feedback needed to quickly identify and resolve issues that inhibit process, product and service improvements. Founded in Portugal in 1998, Critical Software currently has offices in Coimbra, Lisbon and Oporto, and subsidiaries in the UK (with offices in Southampton and Yeovil), the USA (San Jose, California), Brazil (São Paulo), Mozambique (Maputo), Angola (Luanda) and Singapore. The company operates a quality management system certified to CMMI® Level5, ISO 9001:2008 Tick-IT and ISO 15504.

Stand No: **19-20-20 B**	**SSC**
Hall 2	*Contact:* ***Annika Benson***

P.O. Box 4207
SE-171 04 Solna
Sweden

Tel: +46 8 627 62 00
Fax: +46 8 98 70 69
Email: annika.benson@sscspace.com
Web: www.sscspace.com

The SSC Group consists of several specialised companies: SSC, NanoSpace, ECAPS, LSE Space, Aurora Technology, Universal Space Network, SSC Chile and SSC Space Australia. The Group's activities are built on decades of experience and cover many fields, including aerospace engineering and satellite management services through the entire life cycle from mission idea to operational end-of-life. We develop rocket systems and experiment payloads, "green" propulsion systems, miniaturised components and airborne maritime surveillance systems, and we launch sounding rockets and high-altitude balloons from Esrange Space Center.

Stand No: **20 A**	**IAF Global Networking Forum**
Hall 2	*Contact:* ***Philippe Moreels***

94bis, avenue de Suffren
75015 Paris
France

Tel: +33 1 45 67 42 60
Fax: +33 1 42 73 21 20
Email: philippe.moreels@iafastro.org
Web: www.iafastro.org

The constant evolution of the IAF Cluster Forum and the growing number of events it hosts inspired the IAF to create something more global and comprehensive, of even greater appeal to students, young professionals, experts, decision- and policy- makers, the general public and all other space actors. The intention is determined and clear: to further reinforce the spirit of lively knowledge-sharing and networking which define the Forum.

The IAF Global Networking Forum will build on the success and opportunities created by the three preceding Cluster Forums - in Daejeon, South Korea (2009), Prague, Czech Republic (2010) and Cape Town, South Africa (2011) - and feature a varied programme of round-table discussions, panel discussions and networking sessions, to give professionals and students the opportunity to share ideas, knowledge and best practices. For the full programme, please see pages 49-51.

As is customary, the Forum will take place in the IAC exhibition, centrally located in Hall 2 of the Congress exhibition space.

Stand No: **20 C**	**Asia Pacific Space Cooperation Organisation (APSCO)**
Hall 2	*Contact:* ***Yoyo GAO***

Building 13&14
Section 3
No.188 South West Forth Ring Rd. Beijing
China

Tel: +86 10 63702677
Fax: +86 10 63702286
Email: gaoyoyo@apsco.int
Web: www.apsco.int

The Asia-Pacific Space Cooperation Organization (APSCO) is an inter-governmental organisation with full international juridical personality. APSCO, headquartered in Beijing, starts its formal operation in December 2008, has eight Member States (Bangladesh, China, Iran, Mongolia, Pakistan, Peru, Thailand and Turkey) and one Signatory State (Indonesia).

The main objective of APSCO is to promote the peaceful uses of outer space in Asia-Pacific Region, and to carry out the cooperation in the fields of space science, space technology, and space application among Member States and regional countries.

Stand No: **21-22**	**Springer**
Hall 2	*Contact:* ***Maury Solomon***

233 Spring Street
New York, NY 10013-1578
USA

Tel: +1 212 460 1592
Fax: +1 212 460 1576
Email: maury.solomon@springer.com
Web: www.springer.com/astronomy

Come and browse our key titles in Astronautics. Discover the benefits of eBooks, enjoy your 20% discount on print books – or get printed eBooks for €24.95 with MyCopy.

Among our highlight publications are "How Apollo Flew to the Moon", "Star Maps", "At Home in Space", and cutting-edge journals such as "Celestial Mechanics and Dynamical Astronomy".

Meet the Publishing Editor Maury Solomon to discuss your book proposal and to ensure optimised print and electronic dissemination of your work, too!

Springer, your partner in publishing

Stand No: **23-30**	**Holland pavilion - Representatives of the Netherlands space community**
Hall 2	*Contact:* ***Bas van der Peet*** *(SpaceNed Association Secretary)*

P.O. Box 277
2200 AG Noordwijk
The Netherlands

Email: info@spacened.nl
Web: www.spacened.nl

SpaceNed is the Association of Space companies in The Netherlands, rebranded from NISO in 2009. The objective of SpaceNed is to strengthen the position of its members in the international space market. Members cover Industry, SMEs, research institutes and universities, active in both the upstream and the downstream space markets. Through the Netherlands Space Office, SpaceNed represents its members in communication with the Dutch Government, in creating a well aligned strategy for space in The Netherlands, and the realization thereof.

Participants of the Holland pavilion invite all attendees to come by and meet the representatives of the Netherlands space community.

Participating organizations are: Cosine, Dutch Space, ISIS, Moog Bradford, National Aerospace Laboratory, Netherlands Space Office, SSBV Space & Ground Systems, SystematIC, TNO, TU Delft and University of Twente.

Stand No: **31**	**China Head Aerospace Technology Co.**
Hall 2	*Contact:* ***Chunyan LIU***

B-11A-02 Keshi Plaza
28# Shangdi Xinxi Road
Haidian District, Beijing 100085
P.R. China

Tel: +86 10 82890174
Fax: +86 10 82780152
Email: vita@head-aerospace.com
Web: www.head-aerospace.com

China HEAD Aerospace Technology Co. (HEAD) is the leading space trading company in China engaged in introducing worldwide advanced space products & technology to domestic space missions.

HEAD is also an authorised distributor of Chinese commercial space products for market outside China, actively promoting the high quality and cost efficient satellite parts made in China and encouraging the civilian application of space technology.

HEAD has always been dedicated to building bridges between China and the international space industry which is believed to create a splendid future in space.

Stand No: **32**	**EMXYS**

Hall 2

Contact: ***Francisco García-de-Quirós,*** *Chief Technical Officer*

Parque Científico y Empresarial UMH
Edificio QUORUM IV
Avda. de la Universidad S/N
03202 Elche
Spain

Tel: +34 966442304
Fax: +34 965454784
Email: garciaq@emxys.com
Web: www.emxys.com

EMXYS is an SME specialised in the design, development and manufacturing of spaceborne electronics for instrumentation, data acquisition and control applications. EMXYS is specialised in space applications, but has also extensive experience in other demanding fields like scientific research, industrial automation, defence and transportation. EMXYS promotes its own range of space missions intended to scientific and technology research based in its proprietary nanosatellite architecture: NAOSAT, and its alliance with COSMICA SPACELINES for suborbital missions integrating experimental paylods onboard XCOR's LYNX Spaceplane. EMXYS is an AS9100C:2009 and ISO9001:2008 certified company.

Stand No: **34**	**IABG mbH**

Hall 3 B

Contact: ***Christian Henjes***

Einsteinstraße 20
85521 Ottobrunn
Germany

Tel: +49 89 6088 4080
Fax: +49 89 6088 3194
Email: Henjes@iabg.de
Web: www.iabg.de

IABG operates one of the ESA coordinated European space test centres at Ottobrunn, Germany. During many demanding tests on spacecraft and other systems, IABG has proven to be most efficient and reliable.

Stand No: **35**	**Israel Aerospace Industries (IAI)**

Hall 3 B

Contact: ***Yoram Golobov***

POB 105,
Industrial Zone
Yehud 56000
Israel

Tel: +972 3 531 4509
Fax: +972 3 531 4560
Email: ygolobov@iai .co.il
Web: www.iai.co.il

Israel Aerospace Industries (IAI) is globally recognised leader for defence and civil aerospace technology. IAI's MBT Space Division is the "space house" for cost-effective small to medium size communication satellites (the AMOS family), mini-LEO satellites with different payloads onboard (including EO payloads on the OPTSAT, Ofeq families and the EROS commercial constellation, and SAR on the TecSAR family), Ground Control Stations (including services on-demand), and full range of space sub-systems.

Stand No: **36**	**Semelab Limited**

Hall 3 B

Contact: ***Robert Coleman***

Coventry Road
Lutterworth, Leicestershire
LE17 4JB
UK

Tel: +44 1455 556565
Fax: +44 1455 552612
Email: robert.coleman@semelab-tt.com
Web: www.semelab.com

Semelab has many years of experience in the design and manufacture of semiconductor solutions for use in space applications. All designs and manufacturing are carried out in Semelab's UK custom facility. There are a wide range of discrete semiconductors available: bipolar, SoLaRfets©, SiC,Mosfet, Jfets, linear regulators and diodes.
They are available in many different packaging options, from traditional metal case to the latest state of the art silicon nitride packaging.

We are also able to offer a range of custom and standard MCAs (multichip array), which integrate several semiconductor dies into one package offering light weight, PDB space saving and improved reliability. These are cost effective solutions with low minimum order qualities and little or no N.R.E.

Semelab is rarely restricted by ITAR export restrictions and all of our components can be manufactured in accordance with ESA or Mil std 19,500 specifications.

Stand No: **37**	**International Space University (ISU)**

Hall 3 B

Contact: ***Géraldine MOSER***

1, rue Jean-Dominique Cassini
67400 Illkirch-Graffenstaden
France

Tel: + 33 3 88 65 54 30
Fax: +33 3 88 65 54 47
Email: extrelations@isu.isunet.edu
Web: www.isunet.edu

The International Space University, founded in 1987 and headquartered in Strasbourg, France, is the world's leading international space education institution. It is supported by the world's space leading agencies and aerospace organizations. All ISU programs are taught at the graduate level and are dedicated to promoting international, interdisciplinary and intercultural cooperation in space activities. Over the past 25 years the legendary 9-week Space Studies Program has convened in different host cities around the world. ISU also offers 2 Masters Programs (M.Sc. in Space Studies and M.Sc. in Space Management) as well as an Executive MBA and Executive programs. ISU programs are taught by over 100 full and part time faculty together with invited industry experts from throughout the world. Since its founding in 1987, ISU has graduated 3500 students from over 100 countries.

Stand No: **37**	**International Institute of Space Commerce (IISC)**

Hall 3 B

Contact: ***Géraldine MOSER***

The University Centre
Old Castletown Road
Douglas IM2 1QB
(Isle of Man)

Tel: + 33 3 88 65 54 30
Fax: +33 3 88 65 54 47
Email: extrelations@isu.isunet.edu
Web: www.isunet.edu

The International Institute of Space Commerce (IISC) has been established on the Isle of Man through a partnership between the International Space University (ISU) and the Manx Government. It is intended to be the intellectual home for the industry and space academia around the world for which it shall perform studies, evaluations and provide services to all interested parties with the ultimate aim to promote and enhance world's space commerce to the general public. The vision is for the Institute to act as a resource for all, being an international and non partisan think-tank drawing upon new ideas and solutions to existing and future problems the space industry faces by drawing together experts from academia, government, the media, business, international and non-governmental organizations, most notably those from the ISU and its extended network of people and resources. The aim of the Institute is to broaden the professional perspective and personal understanding of all those involved in the study, formulation, execution, and criticism of space commerce.

Stand No: **38**	**CNES French Space Agency**

Hall 3 B

Contact: ***Elisabeth Moussine-Pouchkin****e*

2 place Maurice Quentin
75001 Paris
France

Tel: +33 144 76 77 47/+33 688 07 06 45
Fax: +33 144 76 78 40
Email: elisabeth.moussine-pouchkine@cnes.fr
Web: www.cnes.fr

CNES is the government agency responsible for shaping and implementing France's space policy.
It is a pivotal player in Europe's space programme, and a major source of initiatives and proposals that aim to maintain France and Europe's competitive edge.

Through its ability to innovate and its forward looking vision, CNES is helping to foster new technologies that will benefit society as a whole, focusing on:

- access to space
- civil applications of space
- Earth, environment and climate
- space science and exploration
- security and defence.

Stand No: **39-42**	**Astrium**

Hall 3 B

Contact: ***Inka Beil***

12 rue Pasteur
BP 76
92152 SURESNES cedex
France

Tel: +33 1 77 51 8000
Fax: +33 1 77 51 8008
Email: inka.beil@astrium.eads.net
Web: www.astrium.eads.net

Europe's leading space company, Astrium is a major player in the global space industry with extensive world-class experience as prime contractor and an international reputation for excellence across the entire space business – satellite systems, payloads, ground systems, terminals and equipment for a vast range of civil and military applications (communications, observation, science and navigation), a complete range of launch capabilities, orbital systems and manned space activities, and a wide portfolio of innovative space-based services. With a 2011 turnover of €5 billion and over 17,000 employees, Astrium is part of the EADS aerospace and defence group.

Stand No: **43**	**HE Space Operations GmbH**

Hall 3 B

Contact: ***Claudia Kessler***

Flughafenallee 24
28199 Bremen
Germany

Tel: +49 421 430 4230
Fax: +49 421 430 4239
Email: ckessler@hespace.com
Web: www.hespace.com

HE Space Operations GmbH is a privately-owned company, operating internationally with offices in the Netherlands, Germany and the USA. At HE Space, we are passionate about space and passionate about people. We specialise in personnel recruitment with an exclusive focus on the space sector. This makes us one of a kind, since no other engineering services company combines the exclusive focus on space with the broad, international network, which we have built over 30 years. HE Space has concentrated its activities on supplying space experts to ESA, to EUMETSAT and to the European space industry. Our industry customers include EADS-Astrium, Kayser-Threde, Jena-Optronik, SES Astra, TESAT Spacecom, IABG, Spaceopal and Euro Cryospace. Our staff have made significant contributions to many of Europe's most exciting space projects.

Stand No: **44-45**	**SpaceX**

Hall 3 B

Contact: ***Jessica Taylor***

1 Rocket Road
Hawthorne
CA 90250
USA

Tel: +1 310 363 6000
Fax: +1 310 363 6001
Email: Jessica.taylor@spacex.com
Web: www.spacex.com

SpaceX has developed a family of launch vehicles and spacecraft that are increasing the reliability and reducing the cost of both manned and unmanned space transportation, ultimately by a factor of ten. With the Falcon family of vehicles, SpaceX offers highly reliable and cost-efficient launch capabilities for spacecraft insertion into any orbital altitude and inclination. SpaceX's Falcon 9 launch vehicle has met 100% of mission objectives on every flight, and in May 2012, SpaceX made history, becoming the first private company to send a spacecraft to the space station.

SpaceX's Falcon 9 launch vehicle and Dragon spacecraft will soon begin delivery of cargo and, in a few years, astronauts to the International Space Station. SpaceX's Falcon Heavy, the world's most powerful rocket, will deliver over 53 metric tons to low Earth orbit and 12 metric tons to geosynchronous transfer orbit (GTO). Founded in 2002 by CEO and Chief Designer Elon Musk, the SpaceX team now numbers more than 1800, with corporate headquarters in Hawthorne, California.

Stand No: **46-47**	**Canadian Space Agency**

Hall 3 B

Contact: ***Sara Millington-Veloza***

6767 route de l'Aéroport
Saint-Hubert (Québec) J3Y 8Y9
Canada

Tel: +1 450 926 4800
Fax: +1 450 926 4352
Email: sara.millington-veloza@asc-csa.gc.ca
Web: www.asc-csa.gc.ca

Since its creation in 1989, the Canadian Space Agency has been driving Canada's use and exploration of space, developing space assets, applications and services, and enabling space capacity, while meeting the nation's strategic priorities and growing need for scientific knowledge, innovation and information.

Stand No: **48**	**The Australian Government Space Policy Unit**

Hall 3 B

Contact: ***Jennifer Doyle***

PO Box 9839
CANBERRA CITY ACT
AUSTRALIA 2601

Tel: +61410540247
Email: space@innovation.gov.au
Web: www.space.gov.au

The Space Policy Unit coordinates Australia's national and international civil space activities, including partnerships with international space agencies and organisations. The Unit is Australia's central point of contact for all civil space activities and is developing an Australian national space policy.

Stand No: **49**	**Astro-und Feinwerktechnik Adlershof GmbH**

Hall 3 B

Contact: ***Stephan Roemer***

Albert-Einstein-Str. 12
Berlin
12489
Germany

Tel: +49 306 392 1000
Fax: +49 306 392 1002
Email: s.roemer@astrofein.com
Web: www.astrofein.com

Small satellite busses (up to 200 kg) and components for small satellites (1 to 400 kg) are the core business activities of Astro- und Feinwerktechnik Adlershof GmbH.

Besides that, scientific and optical payloads is a field with strong heritage at our company, from the Cassini cosmic dust analyser to the Nightpod camera system for the ISS. We focus on highly reliable and smart systems for LEO and deep space applications and specialise in attitude control components, structures and mechanism, power subsystems and solar generators.

In addition, to that we offer ground support equipment (EGSE, MGSE, OGSE), including transport containers and AOCS test beds. The scope of services comprises the complete product assurance and environmental qualification of space hardware, according to NASA or ESA standards.

Stand No: **50**	**Space Generation Advisory Council (SGAC)**

Hall 3 B

Contact: ***Andrea Jaime Albalat***

SGAC p.A. ESPI
Schwarzenbergplatz 6
1030 Vienna
Austria

Tel: +43 1 718 11 18 30
Fax: +43 1 718 11 18 99
Email: andrea.jaime@spacegeneration.org
Web: www.spacegeneration.org

The Space Generation Advisory Council (SGAC) in support of the United Nations Programme on Space Application is a non-governmental organisation which aims to represent students and young space professionals to the United Nations, industry, agencies and academia. SGAC has permanent observer status in the UN Committee on the Peaceful Uses of Outer Space (COPUOS). SGAC has a long history and was conceived at the Third United Nations Conference on the Exploration and Peaceful Uses of Space (UNISPACE-III) in Vienna in 1999. The SGAC Executive Council is made up of representatives from each of the six UN regions, and has a larger body of representatives from nation states. Our focus is on pragmatic space policy advice to policy makers based on the interests of students and young professionals, broadly in the age range 18-35, interested in space from around the world. The SGAC network has more than 4,000 members from about 100 different countries.

Stand No: **51**	**STEEL ELECTRONIQUE**
Hall 3 B	*Contact:* ***Rémy Lafourcade***

ZAC de Cantalauze
Route de Mondavezan
31220 Martres-Tolosane
France

Tel: +33 5 61 98 45 33
Fax: +33 5 61 90 22 79
Email: remy.laffourcade@steel-electronique.fr
Web: www.steel-electronique.fr

Firmly positioned in the field of high technology, STEEL ELECTRONIQUE Company conducts the bulk of its activities in the field of space electronics, where its main customers are public institutions as prestigious as CNES, ONERA, CEA, CNRS or private groups of international scope, such as EADS-Astrium and Thales Alenia Space. These activities cover full support of a space project from customer specifications to achievement and delivery of flight electronic equipments, including:

- Electronic design and development (analogue, digital, FPGA, software)
- Mechanical, thermal, radiation and reliability analysis
- Components purchasing to space quality standards (hi-rel, Rad Hard, or COTS qualification), PCB and mechanical structures for flight electronics procurement
- Manufacturing: components soldering on PCB and wire harness assemblies (ESA/CNES qualified operators).
- Development of tests benches (EGSE) for flight unit testing
- Validation tests: qualification and acceptance (electrical, vibrations, shocks, EMC, thermal vacuum)
- Full equipment documentation and project management to space standards (ECSS).

STEEL Electronique is a recognised supplier for the following types of equipment:
on board computers for platforms; payload data handling (mass memories, formatting units, encryption); DC/DC converters; front end electronics; and intruments control units.

Stand No: **52**	**Syrlinks**
Hall 3 B	*Contact:* ***Philippe Moniot***

Centre d'Affaires l'Odyssée
rue des Courtillons
ZAC de Cicé-Blossac
35170 Bruz
France

Tel: +33 2 99 00 94 52
Fax: +33 2 99 00 94 58
Email: philippe.moniot@syrlinks.com
Web: www.syrlinks.com

Syrlinks, a proven capability to design and manufacture reliable products for space and defense.
Product portfolio: Time/Frequency, Radio Communication & Geolocation (Argos - Cospas Sarsat) / Navigation (GNSS)

Syrlinks is working with CNES for over 12 years. The aim is to provide radio frequency subsystems for small satellite platforms. The reliability of our products has been demonstrated by the production and provision of 44 espace transceivers in seven years for Myriade satellites.

Syrlinks GNSS receiver is a high-performance equipment specially designed and optimised for the needs and constraints of small platforms for which small volume, low mass and low power consumption are important parameters. This receiver is able to process GPS (L1) and GALILEO (E1) signals simultaneously and will be able to evolve to a dual frequency mode (E5a/E1, or E5b/E1).

High data rate X band transmitter EWC22 is a high performance and a low cost unit developed for such space application that requires small size and low mass devices. Transmitter is compact - 160 x 115 x 46 mm - and its mass is 1000 grams. EWC22 device operates in the 8025 MHz to 8400 MHz range. RF maximum output power is +40 dBm.

Stand No: **53**	**Surrey Satellite Technology Ltd**
Hall 3 B	*Contact:* ***Steve Young***

Tycho House
20 Stephenson Road
Guildford
Surrey GU2 7YE

Tel: +44 (0)1483 803803
Fax: +44 (0)1483 803804
Email: s.young@sstl.co.uk
Web: www.sstl.co.uk

More than 27 years of space innovation, taking a unique approach to the design, build, launch and operation of satellites, has propelled SSTL to the forefront of the small satellite industry. We are constantly pushing the boundaries of space, exploiting advances in technologies and challenging conventions, to bring affordable space exploration to our customers. August 2012 saw the successful launch of SSTL's 39th satellite.

SSTL delivers complete mission solutions for remote sensing, science, navigation and telecommunications as well as supplying avionics suites, subsystems and ground infrastructure, consultancy, launch services and training programmes. Our vertically integrated projects allow us to deliver to short schedules and within tight budgets.

Stand No: **54**	**Agenzia Spaziale Italiana (ASI)**
Hall 3 B	*Contact:* ***Fabrizio Zucchini***

Viale Liegi, 26
00198 Rome
Italy

Tel: +39 06 8567231
Fax: +39 06 8567430
Email: info.comunicazioni@asi.it
Web: www.asi.it

The Italian Space Agency, created in 1988, coordinates Italy's efforts in Space. ASI activities range from space science to earth observation, telecommunications and navigation, launchers development. Italy is the third contributor to the European Space Agency, and participates in many major scientific missions as well as in the construction and activities of the International Space Station. ASI has developed COSMO-SkyMed, a space based radar system for Earth observation.

Stand No: **55**	**European Space Agency (ESA)**
Hall 3 B	*Contact:* ***Maria Menendez****, Head of the Exhibitions and Images Office, Communication Department*

8-10, rue Mario Nikis
75738 Paris Cedex 15
France

Tel: +33 1 5369 7654
Fax: +33 1 5369 7690
Email: maria.menendez@esa.int
Web: www.esa.int

For several decades, Europe has been actively involved in spaceflight. Since 1975 the European Space Agency (ESA) has been pooling the resources of its Member States to build a European space capability in order to undertake programmes and activities far beyond the scope of any single European country.

ESA develops the launchers, spacecraft and ground facilities needed to keep Europe at the forefront of global space activities. Today it launches satellites for Earth observation, navigation, telecommunications and astronomy, sends probes to the far reaches of the Solar System, and cooperates in the human exploration of space.

ESA has 20 Member States: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland and the United Kingdom. Canada also sits on the ESA Council and takes part in certain projects under a cooperation agreement. Estonia, Hungary and Slovenia participate in a Plan for European Cooperating States.

Stand No: **56**	**Aerospace Industry Support Initiative (AISI)**
Hall 3 B	*Contact:* ***Marié Botha***

CSIR, Building 23
PO Box 395
Pretoria 0001
South Africa

Tel: +27 12 841 4947
Fax: +27 12 841 3012
Email: mbotha1@csir.co.za
Web: www.aisi.co.za

The Aerospace Industry Support Initiative (AISI) is a government funded mechanism to support the local South African aerospace industry in its drive to become an active and valued player in the global aerospace industry. Funded by the Department of Trade and Industry (the dti), the AISI is hosted and managed by the CSIR. The AISI assists industry by seeding and undertaking focused development programmes on its behalf.

These programmes are new industry development and technology support; supplier development; space regulation and human capital development; industry and impact studies; sector strategic support initiatives; and coordination, promotion and awareness. The AISI's deliverables are linkages with global stakeholders to acquire the necessary technologies and skills; leveraging a new paradigm by which the client becomes a partner; and learning, thereby improving technologies and mastering production and process technologies for new sustainable platforms.

Stand No: **57**	**Czech Space Office**
Hall 3 B	*Contact:* ***Josef Sobra***

Prvniho pluku 17
Praha 8
18600 Czech Republic

Tel: +420 224 918 288
Fax: +420 224 918 288
Email: sobra@czechspace.cz
Web: http://www.czechspace.cz/

CSO is a private non-profit organisation and since 2003 it aims at developing space activities in the Czech Republic. We spread the word about this cross-cutting scientific and technical subject among both professionals and laymen. Our main objective is to ensure the largest possible and most-effective participation of Czech industrial and academic R&D organisations in both national and international space projects. We promote the use of space applications and benefits of space technologies in Czech Republic. We manage and issue the catalogue of Czech companies and institutions with capacity and interest in space projects. We publish information and promo materials about Czech space projects and its results. We offer professional consultation services for national public administration bodies, companies and other R&D organisations. We make analyses and studies about project opportunities and Czech participation in space programs and projects for both domestic and foreign users. We organise courses and seminars about ESA rules and opportunities in European space programmes including GMES. We work on awareness raising and outreach events for schools, universities and general public. Support of student space projects.

Stand No: **58**	**Berlin Space Technologies GmbH**
Hall 3 B	*Contact:* ***Tom Segert***

Max-Planck-Str. 3
12489 Berlin
Germany

Tel: +49 30 639 280 219
Fax: +49 30 221 925 61
Email: info@Berlin-Space-Tech.com
Web: www.Berlin-Space-Tech.com

Berlin Space Technologies (BST) is a specialist for small satellite systems and technology. BST offers reliable and cost efficient solutions for high resolution Earth observation systems with up to 1.5 m GSD. All our products including the unique real time video mode can be bundled with comprehensive training and technology transfer programme.

Berlin Space Technologies was founded by senior staff of the Department of Aeronautics and Astronautics of TU Berlin. Our personnel have held key positions in the TUBSAT™ Programme of TU Berlin since 2005. We were responsible for the design of key subsystems and operation for multiple missions, including LAPAN-TUBSAT, Orbcomm 2nd Generation, LAPAN-A2 and LAPAN-ORARI.

Stand No: **59**	**Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR)**
Hall 3 B	*Contact:* ***Andrea Boese***

DLR German Aerospace Center
Strategy and International Relations
Linder Hoehe
51147 Cologne
Germany

Tel: +49 2203 601 3246
Fax: +49 2203 601 3906
Email: andrea.boese@dlr.de
Web: www.DLR.de

DLR is Germany's national research center for aeronautics and space. Its extensive research and development work in aeronautics, space, transportation, energy, defence and security research is integrated into national and international cooperative ventures. As Germany's Space Agency, the German federal government has given DLR responsibility for the forward planning and implementation of the German space programme as well as international representation of Germany's interests.

DLR's research portfolio ranges from fundamental research to innovative development of the applications and products of tomorrow. In this way, DLR contributes the scientific and technical know-how that it has gained, thus enhancing Germany's industrial and technological reputation. DLR operates large-scale research facilities for the center's own projects and as a service provider for clients and partners. It also promotes the next generation of scientists, provides advisory services to the German government and is a driving force in the regions centred on its various locations.

Approximately 7200 people work for DLR; the center has 32 institutes and facilities at 16 locations in Germany and offices in Brussels, Paris, Singapore, and Washington D.C.

Stand No: **60**	**CIRA - Italian Aerospace Research Centre**
Hall 3 B	*Contact: Mario Sette*

Via Maiorise snc
Capua

Tel: +39 3386072112
Fax: +39 0823 623404
Email: m.sette@cira.it
Web: www.cira.it

CIRA, the Italian Aerospace Research Center, is a consortium company, headquartered in Capua, Campania Region, whose shareholders include the Italian Space Agency (ASI), National Research Center (CNR) and leading Italian aerospace manufacturers. The joint public-private partnership enables CIRA goals to be coherent with national strategic directives and with industry requirements, thus contributing to the economic and social development of the country. The Italian government charged CIRA with drawing up and carrying out the National Aerospace Research Program (PRO.RA.).

Through research and development activities CIRA carries out theoretical and applied analyses in the areas of Space Propulsion, Aerodynamics, Aerothermodynamics and Thermostructures, Advanced Structures, Flight Systems, Adaptronics, Information Technology. Three of its major test facilities, Scirocco Plasma Wind Tunnel, the Icing Wind Tunnel and the Crash Lab, are considered among the most advanced in the world.

CIRA played a significant role in the development of Vega, the new European launcher, participates in Clean Sky and other major European and international research programs, and cooperates with the world's main industrial and government players in both aeronautics and space, from Boeing to Airbus, from NASA to ESA and JAXA.

In the near future, CIRA research will decisively contribute to improving Vega and developing an aircraft capable of making an independent re-entry from Earth orbit.

Stand No: **60 B**	**Korea Aerospace Research Institute (KARI)**
Hall 3 B	*Contact:* ***Mr. Joon LEE***

169-84 Gwahangno, Yuseong-gu
Daejex5-806
Republic of Korea

Tel: +82 42 860 2084
Fax: +82 42 860 2015
Email: joonlee@kari.re.kr
Web: www.kari.re.kr

As a prestigious Korean institute dedicated to aerospace research, KARI ensures a safer and higher quality of life for Korean people through aerospace technology development.

KARI was established in 1989 as the key national research institute for aerospace technology and has made enormous strides in the field. As for satellite development, the projects include Korea Multipurpose Satellites (KOMPSAT-2,3,5) and the Communications, Oceanography and Meteorology Satellite (COMS). In the area of launch vehicles, the KSLV-1 project is focusing on the development and launch of a space launch vehicle capable of launching a 100kg class small satellite into low-earth orbit. For the launch site, KARI built the Naro Space Center in 2009.

KARI will do its best to solidify the core technological bases for further advancement of aerospace technology.

Stand No: **60 C**	**Active Space Technologies**
Hall 3 B	*Contact:* ***Bruno Ramos de Carvalho***

Rua Coronel Júlio Veiga Simão,
3025-307 Coimbra,
Portugal

Tel: +351 304 505 505
Fax: +351 304 505 506
Email: bruno.carvalho@activespacetech.com
Web: www.activespacetech.com

Active Space Technologies offers high added-value products and services in the fields of thermo-mechanical engineering (thermal and structural analysis, fluid dynamics, design, high precision manufacturing and testing), electronics engineering (embedded systems, digital control), as well as Management Support services for technology transfer and development projects (project management, systems engineering, project coordination).

Active Space Technologies is a European based company positioning its services in the global markets of aerospace, defence, automotive, nuclear fusion, and scientific sectors.

Stand No: **60 D**	**The British Interplanetary Society**
Hall 3 B	*Contact:* ***Suszann Parry***

27-29 South Lambeth Road
London SW8 1SZ
UK

Tel: +44 207 735 3160
Fax: +44 207 587 5118
Email: suszann@bis-space.com
Web: www.bis-space.com

Britain's leading think tank on space development. Founded in 1933, it is the world's longest established organisation devoted solely to supporting and promoting the exploration of space and astronautics. The BIS is financially independent, has charitable status, and obtains its main income from a worldwide membership.

The British Interplanetary Society is devoted to initiating, promoting and disseminating new concepts and technical information about space flight and astronautics through meetings, symposia, publications, visits and exhibitions.

Stand No: **60 D**	**4Links Limited**
Hall 3 B	*Contact:* ***Paul Walker***

Suite EU2,
Bletchley Park
Milton Keynes
MK3 6EB
UK

Tel: +44 1908 64 2001
Fax: +44 1908 363 463
Email: paul@4Links.co.uk
Web: 4Links.co.uk

4Links provide everything you need to design, prototype and build high-performance data communication links and fault-tolerant networks. As world leading suppliers of SpaceWire products and expertise, we are uniquely qualified to meet your needs.

Established in 1993, with customers in more than 25 countries worldwide, our products have received numerous accolades, for quality, reliability and ease of use. We and our products routinely save users time, money and risk.

Anyone seeking to create, test or integrate interfaces or networks for use in spacecraft, or for other demanding environments, should talk to 4Links and benefit from our unrivalled products and depth of experience.

Stand No: **60 D**	**Commercial Space Technologies Ltd**
Hall 3 B	*Contact:* ***Miss Mali Perera***

67 Shakespeare Rd.
London W7 1LU
UK

Tel: +44 208 840 1082
Fax: +44 208 840 7776
Email: cst@commercialspace.co.uk
Web: www.commercialspace.co.uk

Commercial Space Technologies Ltd. (CST) is an independent general consultancy in the space field. Since its foundation in 1983, CST has been dedicated to providing the highest quality of management and consultancy services that help keep its partners and customers at the leading edge. CST capabilities include commerce, marketing and trading technical equipment; management, representation and logistics; consultancy, space technologies and planning; resource prospecting by remote sensing; launcher services-brokering and launch solutions provision. CST has a proud track record of launch solution brokerage. The 30th satellite, ADS1-B, was brokered and managed through to launch successfully on 22nd July of this year on a Soyuz Fregat from Baikonur. Please visit our stand for more details.

Stand No: **60 D**	**Reaction Engines Ltd**
Hall 3 B	*Contact:* ***Jeremy Nickless***

Building D5
Culham Science Centre
Abingdon
Oxfordshire OX14 3DB
UK

Tel: +44 1865 408314
Fax: +44 1865 408301
Email: jeremy.nickless@reactionengines.co.uk
Web: www.reactionengines.co.uk

Reaction Engines Ltd (REL) is a privately held company located in the United Kingdom and was formed in 1989 to develop the technologies needed for an advanced combined cycle air-breathing rocket engine class called SABRE that will enable aircraft to operate easily at speeds of up to five times the speed of sound or fly directly into Earth orbit.

We have achieved a breakthrough in aerospace engine technology by developing ultra-lightweight heat exchangers 100 times lighter than existing technologies that allow the cooling of very hot airstreams from over 1,000 °C to minus 150 °C in less than 1/100th of a second.

Reaction Engines' technology has undergone extensive independent technical assessments, undertaken by the European Space Agency at the request of the UK Government, which have confirmed the viability of the engine technology and its vehicle applications.

Stand No: **61**	**Campania Region**
Hall 3 B	*Contact:* ***Sergio Mazzarella,*** *Head of office for Promotion of Productive Regional System- Sett. 03-A.G.C. 12*

via S.Lucia, 81
80132 Napoli

Tel: +39 081 7966874
Email: s.mazzarella@maildip.regione.campania.it
Web: www.regione.campania.it

Campania represents a national pole for the aerospace sector, one of the main ones in Italy, characterized by a key historical experience in hosting industry and by the presence of leading large national companies with significant international exposure. Campania accounts for about 25% of the entire aerospace sector in Italy with more than 130 companies and 10.000 workers. Big corporate players are supported by many sub-supplier SMEs who operate according to the high-standard technologies, manufacturing processes and accuracy of the aerospace industry.

Taking advantage of the long-running competences in the aeronautical sector in the region, the space industry sector is well-represented both through research centers and big players and by some very dynamic SMEs working for key projects of the Italian and European space industry. Among the research centers of Campania, we find CIRA – the Italian Aerospace Reserch Center.

Stand No: **62**	**Thales Alenia Space**
Hall 3 B	*Contact:* ***Chiara Ganz***

Via Saccomuro, 24
00131 Rome
Italy

Tel: +39 06 41513158
Fax: +39 06 41512454
Email: chiara.ganz@thalesaleniaspace.com
Web: www.thalesaleniaspace.com

Thales Alenia Space is a joint subsidiary of Thales (67%) and Finmeccanica (33%), and a partner in the Space Alliance along with Telespazio. The company has 7,500 employees at nine industrial facilities in France, Italy, Spain, Belgium and Germany, and posted total revenues of 2.1 billion Euros in 2011. Thales Alenia Space has more than 40 years of experience in the design, integration, testing, operation and commissioning of innovative space systems and sets the global standard in solutions for space telecommunications, radar and optical Earth observation, defence and security, navigation and science. Thales Alenia Space is also a leading supplier to the International Space Station and a pivotal player in space systems designed to explore the Universe.

Stand No: **63**	**Japan Aerospace Exploration Agency (JAXA)**

Hall 3 B

Contact: ***Eiichi Isayama***

1-6-5 Marunouchi
Chiyoda-ku
Tokyo
100-8262
Japan

Tel: +81 50 3362 7794
Fax: +81 3 6266 6910
Email: isayama.eiichi@jaxa.jp
Web: www.jaxa.jp

With the aim of contributing to the peace and happiness of all living creatures on Earth, JAXA has been pursuing the possibilities of aerospace technologies and challenging their research and development. In current space development activities performed with the partnership of all the nations involved, Japan's role is expanding and receiving substantial expectations from those participating nations. We operate satellites that have a variety of missions, ranging from Earth observation to planetary exploration, as well as development of rockets that are at the world's topmost level. Transfer vehicles carrying the materials indispensable for manned space activities from the ground to International Space Station (ISS). JAXA astronauts engage in the long-term mission in space aboard the ISS. Aviation technology to make the skies safer and more comfortable, and maintain aerospace activities now and in the future. Research and development for the future aerospace activities. JAXA will continue to challenge to the skies and space to create prosperous opportunities for the future of the Earth.

Stand No: **64**	**Arianespace**

Hall 3 B

Contact: ***Jacques Denavaut***

Boulevard de l`Europe
91000 Evry
France

Tel: +33 1 60 87 63 00
Fax: +33 1 60 87 63 04
Email: event@arianespace.com
Web: www.arianespace.com

Arianespace is the world's leading satellite launch company, providing innovation to its customers since 1980. Backed by 21 shareholders and the European Space Agency, the company offers an international workforce renowned for a culture of commitment and excellence. As of 15 August 2012, 208 Ariane launches, 26 Soyuz launches (two at the Guiana Space Centre and 24 at Baikonur with Starsem) and the first launch of Vega had been performed. The company has a backlog of 19 Ariane 5, 15 Soyuz and 3 Vega launches, equal to more than three years of business. www.arianespace.com

Stand No: **88**	**GMA - Axitude**

Hall 3

Contact: ***Giovanni Lucignano***

Viale Della Ferrovia, 20
Giugliano in Campania
80014 Naples
Italy

Tel: +39 081 819 8601 / +39 34 0727 5366
Fax: +39 08 1819 2411
Email: lucignano.g@gmasas.com
Web: www.gmagroup.it

The GMA was founded in 1977. The company designs, manufactures, qualifies and sells electronic and mechanical system for both civil and military markets.

In particular, for the military market, the GMA produces equipments used for C4i (Command, Control, Communications, Computers and Intelligence) applications, while in the civil market the company produces consoles and equipments for air traffic control, ground test transponders and mechanical systems for photovoltaic applications.

In 2010, GMA acquired Axitude, a high-tech company involved in the design and development of inertial ITAR-free navigation systems based on MEMS technology and display panels for avionics, military and nautical applications.

The Company follows the full cycle of product development from conception to installation in the field, providing a complete after-sales service.

4.5 Sponsors

	Agenzia Spaziale Italiana (ASI)

Hall 3 B

Contact: ***Fabrizio Zucchini***

Viale Liegi, 26
00198 Rome
Italy

Tel: +39 06 8567231
Fax: +39 06 8567430
Email: info.comunicazioni@asi.it
Web: www.asi.it

The Italian Space Agency, created in 1988, coordinates Italy's efforts in Space. ASI activities range from space science to earth observation, telecommunications and navigation, launchers development. Italy is the third contributor to the European Space Agency, and participates in many major scientific missions as well as in the construction and activities of the International Space Station. ASI has developed COSMO-SkyMed, a space based radar system for Earth observation.

	Finmeccanica SpA

Contact: ***Francesco Barontini***

Piazza Monte Grappa, 4
00195 Rome
Italy

Tel: +39 06 32473237
Fax: +39 06 32473509
Email: Francesco.Barontini@Finmeccanica.com
Web: www.finmeccanica.com

Finmeccanica is a global leader in the high technology sector and ranks among the top ten global players in Aerospace, Defence and Security. With revenues of EUR 17.3 billion, orders of EUR 17.4 billion and a workforce of about 70,000 in about 50 countries throughout the world, the Group has gained a solid and acknowledged reputation as a worldwide provider of reliable, competitive and high technology systems in all those areas where the protection and safety of people, territory and infrastructure are crucial and essential factors. 73% of revenues and 67% of orders come from the three strategic sectors on which Finmeccanica is focused: Helicopters, Defence Electronics & Security and Aeronautics. The Group is also well positioned in defence systems at an international level and boasts a consolidated presence in the space sector, where it is a global player in the satellite services market. Furthermore, Finmeccanica has substantial expertise and a well-established position on the global transportation and power generation markets.

	Sangemini S.p.A

Contact: ***Stefano Gualdi***

Via Tiberina, 1
05029 - San Gemini (TR)
Italy

Tel: +39 0744 33 0811
Fax: +39 0744 330 8400
Email: cinzia.mari@sangemini.it
Web: www.sangemini.it

The Sangemini Group is an important leader in the Italian beverage industry, that operates in the mineral water with brands like Sangemini, Fiuggi, Fabia, Grazia, Effeviva, Amerino e Aura.

The group is proud to represent the country's two most precious and prestigious mineral waters: Sangemini mineral water is considered a natural source of *"highly absorbable calcium"* (333 mg/l); Fiuggi natural mineral water is a low content mineral water (total dissolved solids about 120 mg/liter)is undoubtedly the *status symbol of health conscious.*

Company mission:
Satisfying the consumer's health and wellness needs on a daily basis with natural, quality and functional beverages are the ultimate goals and driving factors of the Sangemini Group.

The San Gemini plant is proudly certified as an Integrated Management System, which consists of a combination of the most important environmental and quality control certifications for any food and beverage plant worldwide. More so, the Sangemini Group is currently the first food and beverage company to attain the EMAS (European Union's Eco-Management and Audit Scheme) certification within the European Union.

The mineral waters are exported worldwide in the following countries: U.S.A., Canada, Japan, U.K, Austria, Germany, Philippines, Australia, United Arab Emirates and throughout Europe.

5 Tours and Social Events

5.1 Tours

Pompeii, a timeless city

For those who lived at its feet, Vesuvius was just the mountain of the good wine, known as the nectar of Hercules. The inhabitants of Pompeii, Herculaneum, Oplonti and Stabiae were proud of the fertility of their earth mixed with ash and lava. In the morning of 24 August of the year 79 AD, Pompeii was woken up by a sinister rumbling in the bowels of the volcano. The crash of a thousand thunderbolts made the earth tremble and the mountain exploded. Clouds of ash, a rain of fire, a stream of mud, stones and lava buried the treasures, just as the little, everyday things, bread and grain, houses, tabernaes, frescoes and mosaics, the city of the rich and the city of servants. Only a few hours were needed to stop history; as if life was crystallised in an instant until the first archaeological excavations, sixteen centuries later.

Two tours are proposed:

A three-hour visit to the fascinating archaeological site
Lunch in Pompeii

Date: Tuesday, 2 October
Time: 09:00 – 16:30
Departure: San Carlo Theatre entrance
Cost: 76 Euros per person

A two-hour visit to the fascinating archaeological site

Date: Wednesday, 3 October
Time: 08:30 – 13:30
Departure: San Carlo Theatre entrance
Cost: 50 Euros per person

Herculaneum, a leap back in time through a multisensorial experience

Visit to the excavations and the Virtual Archaeological Museum

Herculaneum, surrounded by volcanic rock, gives a clearer idea of the magnitude of the Vesuvius volcanic eruption than Pompeii. While in Pompeii roofs collapsed under the weight of falling ash, only a few centimetres of ash fell on Herculaneum, which was hit by a succession of six flows of boiling mud which solidified and gradually buried the city's buildings from the bottom up, causing relatively little damage and preventing the buildings from collapsing. A visit to the ruins of Herculaneum is therefore a leap back in time, and one finds oneself in the midst of a colonial Roman city, much prized by its cultivated and well-to-do citizens. The remains are so well conserved, and so fascinating, that they have been listed as a UNESCO World Heritage site since 1997.

In the Virtual Museum, surrounded by a stereoscopic reconstruction of the eruption as narrated by Plinius the Younger, the visitor is fully immersed in a virtual world which describes the customs of people who lived in the area of Pompeii before 79 AD and the effects of the eruption.

Date: Thursday, 4 October
Time: 09:00 – 13:00
Departure: San Carlo Theatre entrance
Cost: 60 Euros per person

Vesuvius volcanic crater and a virtual experience of the eruption

Visit the crater and have a virtual experience of the eruption

Date: Wednesday, 3 October
Time: 09:00 – 17:30
Departure: San Carlo Theatre entrance
Cost: 81 Euros per person

Date: Friday, 5 October
Time: 09:00 – 17:30
Departure: San Carlo Theatre entrance
Cost: 81 Euros per person

A breathtaking drive up to Mount Vesuvius, about 9 km east of Naples, reaches the height of a thousand meters, going very close to the lava flows of the last eruption.

From the spot reached by bus a walk of about half an hour to get to the peak of the crater where some alpine guides will show the volcano best known for the eruption that buried the Roman cities of Pompeii and Herculaneum whose historical reality will be known by a dive into the past in the Virtual Archeological Museum of Herculaneum where the visitor will be transported in a virtual context faithfully reconstructed by the use of modern technologies.

Naples, the routes of art and the underground world

A walk through the historical centre and the underground Naples

Date: Tuesday, 2 October
Time: 09:00 – 13:00
Departure: San Carlo Theatre entrance
Cost: 58 Euros per person

The historical centre of Naples is made of characteristic, narrow, winding and lively streets, churches and ancient buildings. The walk starts from San Severo Chapel, one of the most important religious buildings in Naples, with precious works of art and oddities still shrouded in mystery reaches San Gregorio Armeno, a street that has become famous all over the world where skilled craftsmen work all year to create the famous nativity scenes used at Christmas. Hand painted Christmas statues. houses and shepherds are displayed in small shops along the road and the nearby alleys, thus creating a festive, joyful and bubbling atmosphere all around.

Forty meters below the deep and ancient silence of a different world, unexplored, isolated by time, but deeply connected with the world above. A system of catacombs, tunnels, secret passages, Greek-Roman aqueducts which run for hundreds of miles under the city. Naples is built layer over layer out of the compacted volcanic ash and rock that Italians call tufo. Porous and easy to manipulate it was used to build Neapolis, the "new city".

Naples, the glamour of history

Short walk to discover the most authentic places of a city extremely rich in treasures and contradictions

Date: Monday, 1 October
Time: 09.00 – 13:30
Departure: San Carlo Theatre entrance
Cost: 41 Euros per person

Date: Wednesday, 3 October
Time: 09:00 –-13:30
Departure: San Carlo Theatre entrance
Cost: 41 Euros per person

The tour will show the first come visitors Naples' artistic and historical highlights: the San Carlo Theatre, one of the most beautiful opera houses in Europe, the cross-shaped "Galleria Umberto I" built between 1887 and 1891, the imposing medieval castle named "Maschio Angioino", once residence of kings and viceroys, Piazza del Plebiscito, one of the largest squares in Naples enclosed on one side by the Royal Palace and, on the other by the neoclassical facade and portico of the Church of San Francesco di Paola, and, after a short drive by bus, the baroque Church of Gesù Nuovo with its unusual facade and Santa Chiara Church, a Gothic style convent built between 1310 and 1328, famous for its XVIII century cloister decorated by majolicas characteristic of the school of Neapolitan ceramic of that period.

Capri, an ageless charm

Hydrofoil to Capri, tour of the island by boat and visit of the village (reached by funicular), lunch in Capri

Date: Thursday, 4 October
Time: 09:00 – 17:30
Departure: San Carlo Theatre entrance
Cost: 101 Euros per person

Capri is a legendary isle whose beauty and charm is embodied by the little square, deep in the heart of the island. The "piazzetta", a showcase visited by kings and queens, writers and screen stars has become, since the beginning of the 19th century, the cradle of inspiration for artists, intellectuals and common people who come to Capri overwhelmed by its outstanding natural beauties, seduced by the dazzling pale blue light of the Blue Grotto, magnetically attracted by the extraordinary view over the Faraglioni Rocks from the Augustus Gardens and Punta Tragara.

A few minutes walk to arrive at the Port of Naples to take the hydrofoil that, in about 50 minutes, will reach the port of Marina Grande.

The fishing boat tour is meant to explore the east cost of the island with the limestone natural arch dating from the paleolitical age and created by the remains of a collapsed grotto. The walk will go along Via Tragara, with its luxury hotels and historical villas, reach the Gardens of Augustus to enjoy the breathtaking panorama over the sea and the magnificent view of the Via Krupp, the pathway built on the rocks over the sea in the early 1900s, overcoming a difference in height of one hundred metres.

Capri, high on the hills

Hydrofoil to Capri, motorcoach to Anacapri and visit of Villa San Michele, back by minibus and short visit of the village with lunch in Capri

Date: Friday, 5 October
Time: 09:00 – 17:30
Departure: San Carlo Theatre entrance
Cost: 101 Euros per person

Capri is a legendary isle whose beauty and charm is embodied by the little square, deep in the heart of the island. The "piazzetta", a showcase visited by kings and queens, writers and screen stars has become, since the beginning of the XIX century, the cradle of inspiration for artists, intellectuals and common people who come to Capri overwhelmed by its outstanding natural beauties, enraptured by the winding little streets leading down to the harbours and up to Axel Munthe's Villa in Anacapri that houses precious 17th century furniture and valuable masterpieces.

A few minutes walk to arrive at the Port of Naples to take the hydrofoil that, in about 50 minutes, will reach Capri. After disembarking at Marina Grande, a 15-minute motorcoach ride to Anacapri to visit Villa Axel Munthe, the famous Swedish writer and physician. Down to Capri, stop at the famous Piazza Umberto I which is completely surrounded by little white houses as an inner courtyard.

Cost of the tours include:

- English speaking guide
- Ground transportation by bus (and, when needed, hydrofoil)
- Light lunch (only full-day visits)
- Entrance tickets to museums

Important:

- Tour reservations will be processed on a first-come-first-served basis. The number of participants for each tour is limited.
- The organisers reserve the right to modify the tour programme if required
- The organisers reserve the right to cancel tours accounting for less than 25 participants without liability other than refunding the cost of the tour to participants.
- Dress code: casual attire with comfortable walking shoes, we recommend you bring a light weight jacket as temperatures in October can be mild.
- The organisers will not accept responsibility for personal injury, loss or damage to private, personal property of participants to the tours.

5.2 Gala Dinner

Friday, 5 October

Time: 20:30
Price: 110 Euros per person
Location: Reggia Quisisana, *Viale ippocastani,* Castellammare di Stabia
Transportation will be provided

Gala Dinner at Reggia Quisisana, a royal palace built on the hill of Quisisana in Castellammare, a small city located on the Bay of Naples about 30 kilometres southeast of Naples, on the route to Sorrento, next to the ancient Roman city of Stabiae destroyed by the Vesuvius eruption in AD79.

The name Quisisana ("Domus de loco sano") reminds us of the healthy and sunny climate of the location. It is difficult to say when Reggia Quisisana was built. The exact date is still shrouded in mystery. The palace is quoted in some documents dating back to 1280 and is mentioned in one of the novels of Boccaccio's Decamerone. In 1268, Reggia Quisisana housed King Charles I of Anjou, but since the Angevins had conquered the Kingdom of Naples only two years before, it probably dates back to the Suebi. Napoleon's sister lived there for a long while; in 1541 it belonged to the Farnese family and then to the Bourbons and the Savoia royal family. In 1879 it became a hotel and during the world wars was used as a hospital. It was completely restored in 2009. The garden in the courtyard is a typical Italian-style garden.

The menu will be based on Mediterranean food. The evening will be enlivened by Neapolitan music.

5.3 Social Events

Tuesday, 2 October

Caravaggio evening

Time: 20:00
Cost: 75 Euros per person
Location: Pio Monte della Misericordia, *Via dei Tribunali, 253*
No transportation provided.

Guided visit (in English) of Pio Monte della Misericordia institution, including the magnificent, octogonal cross-plan, baroque church which houses the great painting, *The works of Mercy*, commissioned to Michelangelo Merisi da Caravaggio, as well as a gallery displaying paintings by Italian and European artists and sculptures and silver artefacts reminiscent of the munificence of Neapolitan people.

Buffet dinner inside the Gallery enlivened by piano music.

Wednesday, 3 October

FUTURO REMOTO, Factories of the Sky

Time: 19:00
Cost: Free entrance at the Opening Ceremony for IAC participants wearing their badges
Location: Città della Scienza, *Via Coroglio, 104 e 57*
No transportation provided.

Organised with the partnership of ASI, the Italian Space Agency, Futuro Remoto is the scientific and cultural event offered by Città della Scienza as a contribution to the 63rd IAC.

Starting from the cosmological evolution of the Universe, the exhibition offers the opportunity of an amazing journey towards the new space frontiers and the latest results from the space industry, so as to discover the main innovations in the field of scientific research. A journey through Science and Science-Fiction.

Great attention will be dedicated to the presentation of the newest models of space probes, satellites and space vehicles, including IRENE.

The treasures of Diocesano Museum

Time: 20:00
Cost: 80 Euros per person
Location: Museo Diocesano, *Largo Donnaregina*
No transportation provided.

Guided visit (in English) of Museo Diocesano, located in the splendid church of Donnaregina Nuova, rich of frescos, paintings, sculptures, marble and wooden tarsias.

Buffet dinner inside this real gem of the Baroque art: a place where culture, art and spirituality blend together creating a very special atmosphere made even more amusing by harp music played inside the nave.

Thursday, 4 October

Pizza party

Time: 20:00
Cost: 55 Euros per person
Location: Typical Pizzeria
No transportation provided.

Do not miss the opportunity to taste a real Neapolitan pizza in a nice restaurant. Pizza in its most basic form is a seasoned flatbread, made from wheat flour and water and cooked in a wood fired oven, and has a long history. Although considered for many years the dish of the poor people, in June 1889, to honour the Queen consort of Italy, Margherita of Savoy, a Neapolitan chef created a pizza with the colours of the Italian flag: the well-known "Pizza Margherita". The topping was made of tomatoes, mozzarella cheese and basil, and it tasted delicious. You now have the opportunity to taste it or taste a pizza with one of the other numerous toppings together with deep-fried vegetables and a special Neapolitan dessert.

A typical "posteggia" will brighten up the dinner, alternating singing from the repertoire of Neapolitan songs and instrumental pieces with mandolin and guitar.

Important:

Event reservations will be processed on a first-come-first-served basis. The number of participants for each event (except for Futuro Remoto) is limited and early booking is advisable. On-site reservations availability cannot be guaranteed.

- The organisers reserve the right to modify the event programme if required.
- The organisers reserve the right to cancel the event accounting for less than 150 participants without liability other than refunding the cost to participants.
- The organisers will not accept responsibility for personal injury, loss or damage to private, personal property of participants to the events.

6 Associated Programmes and Events

6.1 IAF Global Networking Forum (GNF)

Monday, 1 October – Friday, 5 October

Monday, 1 October

11:30 – 11:45	IAF Global Networking Forum Opening
11:45 – 12:15	IAF Alliance • ***Marc Heppener,*** Chairman of the IAF Space Societies Committee • ***Jinyu Gong,*** Deputy Secretary General, Chinese Society of Astronautics • ***Alistair Scott***, President, The British Interplanetary Society
15:15 – 15:45	Heads of Agency Press Conference

Tuesday, 2 October – Industry Day Programme

10:00 – 10:30	Welcome Coffee
10:30 – 11:30	**Panel Discussion on the economic impacts of Satellite Navigation Systems** **Moderator:** • ***Johann-Dietrich Wörner***, Chairman of the Executive Board, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany **Panellists:** • ***Zhiheng Fu***, Vice President, China Great Wall Industry Corporation (CGWIC), China • ***Satoshi Fujiwara***, Senior Counselor, Office of National Space Policy, Cabinet Office, Japan • ***James K. "Kevin" McLaughlin***, Director, Space Operations, Deputy Chief of Staff for Operations, Plans and Requirements, U.S. Air Force, United States • ***Anatoly Shilov***, Deputy Director, Federal Space Agency, Russia • ***Paul Weissenberg,*** Deputy Director-General of the Enterprise and Industry Directorate-General European Commission, Belgium
12:30 – 13:30	**Industry Luncheon (upon Invitation)**
15:00 – 15:30	Networking Coffee
15:30 – 16:30	**Panel discussion on Earth Observation Challenges** **Moderator:** • ***Volker Liebig (invited)***, Director of Earth Observation Programmes, European Space Agency, Italy **Panellists:** • ***Driss El Hadani***, Director, CRTS, Morocco • ***Mag Iskander***, President Information System, MDA Corporation, Canada • ***Azzedine Oussedik (invited)***, Director General, Agence Spatiale Algérienne (ASAL), Algeria • ***Eric Soulères***, CTO, Astrium Services, France • ***Martin Sweeting***, Chairman, Surrey Satellite Centre, United Kingdom
16:30 – 16:45	Networking Break
16:45 – 17:45	**Vega Launch System** **Panellists:** • ***Stefano Bianchi***, Vega Programme Manager, European Space Agency, Italy • ***Arturo Cramarossa***, Strategic Affairs, Agenzia Spaziale Italiana, Italy • ***Louis Laurent***, Senior Vice President, Programmes, Arianespace, France

Wednesday, 3 October

10:15 Welcome

- ***William H. Gerstenmaier,*** Associate Administrator, Human Exploration and Operations, Mission Directorate, NASA
- ***Elizabeth E. Richard***, Senior Strategist, Wyle (Moderator)
- ***Johann-Dietrich Wörner,*** Chairman of the Executive Board, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

10:30 **Innovations with Earth and Space Benefits**

Speakers:

- ***Jeffrey R. Davis,*** Director, Human Health and Performance, NASA (confirmed)
  "Human health and performance innovations with Earth/space benefits to quality of life"
- ***Simon N. Evetts***, Medical Projects and Technology Lead, Wyle GmBH (confirmed)
  "UK Space Biomedicine: national and global collaboration"
- ***William H. Gerstenmaier,*** Associate Administrator, Human Exploration and Operations Mission Directorate, NASA
- ***Rupert Gerzer,*** Director, Institute of Aerospace Medicine, German Aerospace Center (DLR)
  ":envihab – the new research facility for human spaceflight and terrestrial applications at DLR"
- ***Patrik Sundblad,*** Human Research Coordinator (ESA)
  "ISS Research for Humanitarian/Terrestrial Benefit"

12:00 ***Lunch***
** Light lunch provided by Wyle **

Keynote Lecture

- ***Leland D. Melvin,*** Astronaut and Associate Administrator for Education, NASA
  "Innovation in STEM to Inspire the Next Generation of Explorers"

12:30 Q&A

12:45 **Panel: Benefits to Earth from Space Agencies Around the World**

Panellists:

- ***Volker Damann,*** Head, Crew Medical Support Office, European Astronaut Department, European Space Agency (ESA)
- ***Jeffrey R. Davis,*** Director, Human Health and Performance (NASA)
- ***Gerd Gruppe,*** Member of the DLR Executive Board responsible for the German Space Administration (DLR)
- ***Chiaki Mukai,*** Astronaut and Vice Director for Human Space Systems and Utilization Mission Directorate Japan Aerospace Exploration Agency (JAXA)
- ***Patrik Sundblad,*** Human Research Coordinator (ESA)
- ***Igor B. Ushakov,*** Director, IBMP, Russian Academy of Sciences (invited))
- ***CarissaVidlak,*** Lead, NHHPC Social Responsibility (Wyle)

14:15 Q&A and Interactive Session with Audience

14:50 Concluding Statements

- ***Elizabeth E. Richard,*** Senior Strategist, Wyle

15:00 Adjourn

Thursday, 4 October – Career Day Programme

10:15 Welcome

10:30 **Women in Aerospace and Space Generation Advisory Council Panel**

11:40 Orientation Session

15:15 **Panel: Space Networking and Recruitung in a Social (Media) Environment**

Moderator:

- ***Claudia Kessler,*** CEO, HE Space

18:00 **Tweet-up Session**
World Space Week Announcement
What do you do to celebrate?

Speakers:

- ***Buzz Aldrin,*** Astronaut, Apollo XI
- ***Bill Nye,*** CEO, The Planetary Society
- ***Max Grimard,*** Chairman, World Space Week Association

Friday, 5 October – Public Day Programme

10:15 Welcome

10:30 **A Tribute to Neil Armstrong**

- ***Buzz Aldrin,*** Astronaut, Apollo XI

11:15 **Panel Discussion with Astronauts**

12:45 Q&A with audience

6.2 IAF 2012 Emerging Space Leaders Programme

Berndt Feuerbacher, IAF President, and Jim Zimmerman, Past-President and Chair of the selection committee, are pleased to announce the results of the Emerging Space Leaders Grant Programme (formerly the IAF Youth Grants Programme), which provides opportunities for students and young professionals to participate in the International Astronautical Congress.

More than 95 students and young professionals from 30 countries throughout the world submitted applications, which were carefully reviewed and ranked in accordance with, among others, the following selection criteria:

- Qualifications (educational and professional experience)
- Potential to make positive impacts on space activities in his/her home country
- Relevance of candidate's abstract for a technical session
- Substantive content of the candidate's essay
- English language proficiency

See www.iafastro.org/index.html?title=ESLgrants for more information.
The 12 young people selected are listed below in alphabetical order. Detailed biographical information is available at: www.iafastro.org/index.html?title=2012ESLgrants.

Dmitry Arakcheev, *Russia*

Having graduated from the University of Chemical Technology of Russia Mendeleyev (Moscow, Russia) in 2008, Mr Arakcheev works at the Research and Design Institute of Chemical Engineering in Moscow.

Magaly Sandoval, *Costa Rica*

Ms Sandoval is studying mechatronic engineering at the Costa Rica Institute of Technology. She is a board member of the Centro American Association of Aeronautics and Space.

Elizabeth Blaber, *Australia*

Ms Blaber has a Bachelor of Medical Science from the University of New South Wales, Australia and commenced her PhD programme in biochemistry and molecular genetics in 2010.

Rogel Mari Sese, *Philippines*

Mr Sese is the head of the Astrophysics Laboratory of the University of the Philippines Los Banos. He is the chairman of the Southeast Asian Young Astronomers Collaboration.

Olavo De Oliveira Bittencourt Neto, *Brazil*

Mr De Oliveira Bittencourt Neto is a post-doctorate researcher at the University of Sao Paolo, Brazil. He is a member of the Brazilian Association for Aeronautics and Space Law and the International Institute of Space Law (IISL).

Nathan Silvernail, *USA*

Mr Silvernail is studying for a Master of Science in Mechanical Engineering at the Embry Riddle Aeronautical University, USA. He is currently under contract with United Launch Alliance to develop on-orbit refuelling technologies.

Conny Hansson, *Sweden*

After completing his PhD at the University of Manchester, UK, in 2010, Mr Hansson joined ESA's ESTEC facility in the Netherlands. He is currently involved in the development of new X-ray, γ-ray and neutron detector technologies for use in future space missions.

Balbir Singh, *India*

Mr Singh is an assistant professor at Manipal Institute of Technology, Manipal University in India. His research interests include investigating the effect of space weather on manned interplanetary space missions.

Aafaque Khan, *India*

Mr Khan is completing a Bachelor's degree in Mechanical Engineering at Maulana Azad National Institute of Technology, India. He serves as the Executive Co-secretary of the Space Generation Advisory Council (SGAC).

Vladeta Zmijanovic, *Serbia*

Mr Zmijanovic is a graduate student from Faculty of Mechanical engineering at the University of Belgrade, Serbia. He is finishing is PhD at the Ecole Doctorale of Sciences and Technologies of the University of Orleans.

Dusan Marceta, *Serbia*

Mr Marceta is working as an associate professor at the Department of Astronomy in the Faculty of Mathematics of the University of Belgrade, Serbia. His research is focused on several fields in astronomy and space engineering including small body dynamics and re-entry problems of natural and artificial bodies.

Medinah Zubairu, *Nigeria*

Ms Zubairu has a Master of Science from Hmadu Bello University, Nigeria. She is an intern at the National Space Research and Development Agency in Nigeria.

6.3 IAF 2012 Young Space Leaders Recognition Programme

IAF President, Berndt Feuerbacher, is pleased to announce the results of the Young Space Leaders Recognition Programme. This inaugural programme produced considerable interest from IAF Member organisations, resulting in a large number of highly qualified nominations.

The five individuals selected have made outstanding contributions to the activities of the International Astronautical Federation in promoting astronautics through their academic and/or professional activities, through outreach to other young people and their communities, and through engagement with the international space community. This qualified each of them to serve as the first recipients of the Federation's Young Space Leaders award.

The 2012 Young Space Leaders – listed in alphabetical order below – will be inducted at the 63rd International Astronautical Congress (IAC) in Naples, Italy, as a highlight of the Closing Ceremony on 5 October. The recipients are also invited to attend the IAC Gala Dinner as guests of the IAF President.

Ariane Cornell

Ms Cornell has worked as Space Generation Advisory Council (SGAC) Executive Director since 2009. She is responsible for the organisation's operational activities and represents SGAC at the United Nations and other international conferences.

Ms Cornell has helped with the organisation of IAF/IAC activities for IAF Emerging Space Leaders (formerly Youth Grant) recipients and assisted the organisers of several IAF Regional Groups. She also participates in the IAF Workforce Development/Young Professional Programme and Space Education and Outreach Committees.

Kevin Stube

Mr Stube serves as a Program/Project Manager and Project Analyst at the NASA Ames Research Center, where he provides technical integration and programme/project support to the Exploration Technology Directorate.

Mr Stube serves as Vice-Chair of the Workforce Development/Young Professional Programme Committee and is a member of the Entrepreneurship and Investment and ITACCUS Committees. He also helped the IAF organise its first young professionals programme during the 2006 IAC in Valencia and has managed and actively contributed to subsequent IAF young professional programmes in each of the following years.

Agnieszka Lukaszczyk

Ms Lukaszczyk serves as the Brussels Office Director of the Secure World Foundation. Previously, she served as the Chair of the Space Generation Advisory Council.

Ms Lukaszczyk has helped with the organisation of IAF/IAC activities for Emerging Space Leader (formerly Youth Grant) recipients and with IAF young professionals' events during the IAC. She participates actively in several IAF technical committees and has served as a rapporteur at a number of IAC technical sessions.

Danielle Wood

Dr Wood recently completed her PhD at the Massachusetts Institute of Technology, USA. She is now working as a post-doctoral researcher at the Applied Physics Laboratory at Johns Hopkins University, researching how developing countries build their first satellites through partnerships with more established firms in other parts of the world.

Dr Wood proposed, organised and continues to manage a communications mechanism for past and newly-selected IAF Emerging Space Leaders (formerly Youth Grant) to keep them in contact with each other and with the IAF. She also actively assists with the organisation of and helps conduct the IAF Space Educator Professional Development Programme, an initiative first undertaken in 2010.

Nicolas Peter

Mr Peter works at the European Space Agency (ESA) as Exploration Strategy Officer in the Director General's Cabinet and serves as Secretary of the Human Spaceflight, Microgravity and Exploration Programme Board.

Mr Peter actively participates in the IAF Space Security Committee as secretary and has served as both co-chair and rapporteur in a number of IAF technical sessions.

6.4 2012 IAC Young Professional Programme

All young professionals, please join us at these events included in your registration.

Sunday, 30 September

18:30 – 20:30: Ischia Room

Welcome Reception

- Berndt Feuerbacher, President, IAF
- Antonio Moccia, IPC Co-Chair, IAC Naples 2012
- Musical Entertainment

Tuesday, 2 October

18:30 –20:30: Ischia Room

An Evening with Space Industry Executives

- Joanne Maguire, Executive Vice-President, Lockheed Martin Space Systems Company
- Vitali Lopota, President and General Director, RSC Energia

Wednesday, 3 October

18:30 – 20:30: Ischia Room

Speed Networking Social

Bring your business cards and questions for 25 senior space executives from around the world!

*****Don't forget the Thursday afternoon Next Generation Plenary Session*****
USES OF SOCIAL MEDIA FOR THE ADVANCEMENT OF EARTH AND SPACE SCIENCE, TECHNOLOGY AND OPERATIONS

You can also join in with others from around the world in our new Virtual Forums.

Location: TS19 Vega or join remotely www.iafastro.org/index.html?title=VF

Flight Control Operations – Monday, 1 Oct, 15:15 – 18:15
Keynote: John Couluris, Mission Director, SpaceX

Student Team Competition – Tuesday, 2 Oct, 15:15 – 18:15

Space Communications & Navigation (SCAN) – Wednesday, 3 Oct, 15:30 – 17:30
Keynote: Joe Straus, Chair, SCAN Committee and former Exec. VP, Aerospace Corp.

Human Space Endeavours – Thursday, 4 Oct, 13:00 – 15:00
Keynote: William Gerstenmaier, Assoc. Administrator, Human Exploration & Ops, NASA

Global Earth Observation System of Systems – Thursday, 4 Oct, 15:30 – 17:30
Keynote: Scott Madry, University of North Carolina and Informatics International, Inc.

6.5 International Space Education Board (ISEB) Student Programme

Dear Students,

Welcome to the 63rd International Astronautical Congress (IAC) in Naples, Italy.

The member agencies of the International Space Education Board (ISEB) are, for the seventh consecutive year, pleased to have implemented the terms of its mandate to support the future workforce needs of space programmes, through the identification and support for learning and capacity development opportunities for students, by sponsoring the attendance of 80 outstanding undergraduate and graduate researchers at IAC 2012.

The ISEB Student Programme at the IAC offers a unique learning agenda with this year's student activities designed to provide students with opportunities to engage, speak with and learn from space programme senior management, globally recognised subject matter experts, young professionals and peers.

The majority of Student Programme activities, including the Heads of Agency student event and daily panel sessions, will take place at the International Student Zone (ISZ), located in the heart of the exhibit area. This facility was designed with your needs in mind and with the expectation that it be THE hub for student activity for the duration of the IAC. Feel free to identify professionals in your field and invite them to meet with you at the ISZ for discussions and networking opportunities. Make connections with your peers from around the globe at the Zone. You may even develop research collaborations. Activities taking place at the Student Zone are **open to all students** attending the Congress.

No other space conference in the world currently offers either the scope or breadth of student-focused development activities to which you will have access at the IAC 2012. Take full advantage to develop your knowledge, soft skills and networks.

On behalf of the ISEB, I would like to thank the International Astronautical Federation and the members of the Local Organising Committee for their assistance in helping us bring a quality programme to this year's participants.

I wish all of you a fruitful conference and a memorable experience in Naples.

Sincerely,

Marilyn Steinberg
Chair, International Space Education Board
Academic Development
Canadian Space Agency

International Space Education Board (ISEB) Student Programme

Sunday, 30 September: International Space Education Board (ISEB) Orientation Day

14:00 – 14:30	ISEB Meet and Greet
16:00 – 19:00	Icebreaking/Orientation activity (ISEB members and students only)

Monday, 1 October: Commencement Day

10:00 – 11:00	Prologue
13:30 – 15:00	Plenary Event I: Heads of Agency .
16:00 – 17:00	Heads of Agency Q&A Session with ISEB Students (International Student Zone (ISZ)) [Questions by ISEB sponsored students but open to ALL students]

Tuesday, 2 October: ISEB Panel Session Day 1

11:00 – 12:00 Informal Student Research Presentations (ISZ – open to all)

13:00 – 14:00 Panel Session 1 (Human Exploration) *(ISZ - open to ALL students)*

An audacious undertaking, human exploration requires unprecedented commitment and dedication at every level. In the beginning only a few boldly ventured beyond Earth's gravity. Today, more and more partners around the world are working to make their own imprint on human exploration. This panel will explore the way human exploration has evolved, looking at the changes that time and technology have facilitated, and what it takes to explore beyond Earth.

15:00 – 18:00 ISEB Heads of Education Annual Meeting: Part 1

Wednesday, 3 October: ISEB Panel Session Day 2

11:00 – 12:00 Informal Student Research Presentations (ISZ – open to all)

12:30 – 13:00 International Space University (ISU) presentation – Nassim Bovet, ISU

13:00 – 14:00 Panel Session 2 (Space Applications) *(ISZ - open to ALL students)*

Investing in space is not just a means to appease curiosity. The allocation of resources and political will are made consciously and with the goal of making discoveries that will benefit life on Earth. Space-faring nations have made significant contributions to the way we live today. This panel will explore the return on investment in space and why continuing to do so is not a choice; it's a necessity.

Thursday, 4 October: ISEB Panel Session Day 3

11:00 – 12:00 Informal Student Research Presentations (ISZ – open to all)

13:00 – 14:00 Panel Session 3 (Making the transition from student to young professional) *(ISZ - open to ALL students)*

Maintaining a STEM education path in today's economic environment can be a daunting task. The job forecast can at times seem insurmountable. This panel will invite young professionals from around the world to discuss their career path, and demonstrate the many options to a career in your field of passion.

15:00 – 16:00 Informal Student Research Presentations (ISZ – open to all)

Friday, 5 October: ISEB Panel Session Day 4

11:00 – 12:00 Informal Student Research Presentations (ISZ – open to all)

13:00 – 14:00 Panel Session 4 (ISEB-sponsored student collaborative presentation) *(ISZ - open to ALL students)*

Today's undergraduate and graduate students play a key role in ensuring that the pipeline of young people passionate about and interested in space exploration remains abundant. This panel will allow students from around the world to share their views and activities on reaching out and inspiring the next space generation.

6.6 Earth Observation Satellite Applications Workshop

Commissione Aerospazio

University Of Naples Federico II (DIAS)

"Earth Observation Satellite Applications" The projects of Campania Region space companies

The conference/workshop will be held in the "Bobbio Room" in the Engineering Faculty of Federico II University of Naples, at 15:00 on 4 October 2012. The location is just 100 metres from the IAC main location (Mostra d'Oltremare) and the duration of the event will be about 3 hours.

The event is organised by the Engineers Council of the Province of Naples (Aerospace Commission) and the University Federico II (DIAS Department of Aerospace Engineering). Many companies in the Naples area, mainly SMEs, specialise in ICT technologies applied to the EO sector, and many projects in this field have been developed in recent years, with the contribution of ASI, ESA, EU and national institutions.

The workshop itself will comprise a series of about 10 presentations, each lasting 15 minutes, in addition to introductory and welcome speeches. The presentations will illustrate the main applications that use satellite data for the control of land and environment, such as forest fires, landfills, illegal construction, marine archaeology, etc.

The preliminary panel, based on the contacts already confirmed, will include:

General Session

- ***Renato Aurigemma,*** Engineer Council of Naples (Aerospace Commission Coordinator): *Presentation and Technical Session Moderator*
- ***Norberto Salza,*** IAC LOC (Executive Manager): *Introduction to Naples IAC and General Session Moderator*
- ***Antonio Moccia,*** Università Federico II/ IPC Co-Chair: *Welcome speech*
- ***Piero Salatino,*** Università Federico II (Dean of the Faculty of Engineering): *Welcome speech*
- ***Luigi Vinci,*** Engineer Council of Naples (President): *Welcome speech*
- ***Mario Cosmo,*** Italian Space Agency (ASI) (Technical Director): *The ASI projects for SMEs in the field of Earth Observation*
- ***Luigi Iavarone,*** SAM (President): *The role of SME's for EO*
- ***Giuseppe Viriglio,*** Telespazio (CEO): *The activities of TPZ for earth observation*
- ***L. Carrino,*** DAC – Aerospace Campania Technological District (President): *The role of DAC and regional institutions*
- ***Carlo Causio,*** E-Geos (General Manager): *E-Geos Activities*

Technical Session

- ***Marco D'Errico*** and ***Alfredo Renga***, Università Federico II: *Use of SAR data for Marine archaeology*
- ***G. Laneve,*** Università di Roma La Sapienza (CRPSM): *SIGRI project: Forest fires management*
- ***A. Di Felice / A. Melchiorre,*** SERCO/Euro.Soft: *Monitoring and control of landfill waste: the project SIMDEO*
- ***Roberto Tartaglia,*** Marsec (General Manager): *Unauthorized building detection*
- ***Paolo Cerabolini,*** Antares (General Manager): *Earth Observation for Natural Risk Management*

Final Discussion 20-30 minutes

The event costs (room, invitations, press releases, posters, etc.) will be borne entirely by the promoters. This includes a coffee break buffet, offered by the Engineers Council. The audience (between 150 and 200 people) will consist of professionals, local or otherwise, that may be delegates of the IAC, students of the Faculty of Engineering, press and television.

7 Pre-Conference Programme

7.1 UN/IAF Workshop (28 - 30 September 2012)

UN/IAF International Workshop on
"Space Technologies Applied to the Needs of Humanity: Experience from Cases in the Mediterranean Area"

Location: Palacongressi, Mostra d'Oltremare, Naples, Italy

The 22nd meeting in the series of workshops jointly organised by the United Nations Office for Outer Space Affairs (UN-OOSA) and the International Astronautical Federation (IAF) will be held in conjunction with and as an associated event of the 63rd International Astronautical Congress (IAC). It will discuss how space technologies, applications, information and services can contribute to sustainable economic and social development programmes, primarily in developing countries.

Primary objectives of this event include the following:

- To increase awareness among decision makers and representatives of research and academic community of space technology applications for addressing human and environmental issues, primarily in developing countries;
- To examine low-cost space-related technologies and information resources available for addressing human and environmental needs in developing countries;
- To promote educational and public awareness initiatives in the areas of natural resources management and environmental monitoring, as well as to contribute to the capacity building process in these areas; and
- To strengthen international and regional cooperation in the subjects.

The current workshop is being organised with the participation of the European Space Agency (ESA), International Academy of Astronautics (IAA) and Committee on Space Research (COSPAR). Its programme will address, through plenary sessions, working group meetings and discussions, a range of space technologies that can provide cost-effective solutions and essential information for planning and implementation of programmes or projects addressing the needs of humanity. It also will discuss international and regional initiatives and capacity building activities in this area.

The programme of the workshop will include 4 technical sessions addressing the following themes:

- Technical Session 1: Space technology applications for discovery and preservation of cultural heritage
- Technical Session 2: Maritime applications of space technologies
- Technical Session 3: Space applications to desert environment monitoring
- Technical Session 4: Space applications to land management

A concluding round table discussion with participation of heads/top managers of space agencies and other relevant national/regional/international institutions and organisations from both space faring and non-space faring countries will be held on the last day of the meeting (Sunday 30 September, from 16:00 to 17:30). Prior to the round table discussion, two or three Working Groups will be established in order to summarise critical issues/focal themes identified in the presentations delivered at the technical sessions of the workshop.

In addition to the UN and IAF, the current co-sponsorship of the meeting includes the European Space Agency (ESA) and Italian Space Agency (ASI), and it is still open to interested organisations and companies. Financial support provided by the co-sponsors will allow a number of selected participants from developing countries to attend the workshop and IAC.

Participation in the meeting is open to all registrants of the IAC, and there is no registration fee associated with the workshop.

Additional information on the workshop, including on-line registration form, is available on the UN-OOSA website: http://www.unoosa.org/oosa/en/SAP/act2012/un-iaf/index.html

For further information, please contact:

UN-OOSA:
Sergei Chernikov,
UN Office for Outer Space Affairs
E-mail: unpsa@unoosa.org

IAF:
Christian Feichtinger,
IAF Secretariat
E-mail: info@iafastro.org

Friday, 28 September 2012

08:00 – 09:00 **Registration**

09:00 – 10:30 **Inaugural Session**
- Opening Ceremony
- Keynote Address I by M. Cosmo, ASI, Italy
- Keynote Address II by Jean-louis Fellous, Executive Director, COSPAR, France
- Keynote Address III – Space for Daily Life by Amnon Ginati, IAA/ESA

10:30 – 11:00 Coffee break

11:00 – 13:00 **Technical Session 1 - Space technology applications for discovery and preservation of cultural heritage**
Co-Chairs: Annette Froehlich, DLR, Germany and ***S. Marchisio,*** CNR, Italy
Rapporteurs: B. Singh, D. Arakcheev, M. Sandoval (Recipients of IAF Emerging Space Leader Grant)

13:00 – 14:00 Lunch

14:00 – 18:00 **Technical Session 2 - Maritime applications of space technologies**
Co-Chairs: A. Ginati, IAA and ***C. Matarazzi***, ASI, Italy
Rapporteurs: O. De Oliveira Bittencourt Neto, D. Marceta, N. Silvernail (Recipients of IAF Emerging Space Leader Grant)

19:00 **Reception organised by the Local Organising Committee and Italian Space Agency**

Saturday, 29 September 2012

09:00 – 13:00 **Technical Session 3 - Space applications to desert environment monitoring**
Co-chairs: Nadine Gobron, COSPAR and ***Carlo Ulivieri***, Univ. of Rome, Italy
Rapporteurs: M. Zubairu, A. Khan, C. Hansson (Recipients of IAF Emerging Space Leader Grant)

13:00 – 14:00 Lunch

14:00 – 18:00 **Technical Session 4 - Space applications to land management**
Co-chairs: TBA, ESA and ***F. Mastracci***, e-GEOS, Italy
Rapporteurs: E. Blaber, V. Zmijanovic, R. M. Sese (Recipients of IAF Emerging Space Leader Grant)

19:00 **Gala-dinner organised by the Local Organising Committee and Italian Space Agency**

Sunday, 30 September 2012

10:00 – 15:30 **Working Groups Meeting**

Two or three Working Groups will be established to prepare for the Round Table discussion in addressing questions on critical issues/focal themes identified at the technical sessions

16:00 – 17:30 **Round Table Discussion**
Moderator: Yasushi Horikawa, Chairman of COPUOS

A concluding Round Table discussion will be organised with participation of heads/top managers of space agencies and other relevant national/regional/international institutions and organisations from both space faring and non-space faring countries in order to establish a direct dialogue with the Workshop participants on how space technologies and policies can contribute to sustainable economic and social development programmes in developing countries. The round table will also discuss issues and problems in participants' countries as well as opening an exchange of pragmatic ideas between decision-makers and leaders from the above-mentioned organisations and participants of the Workshop.

17:30 – 18:00 **Concluding Session**
Co-chairs: G. Brachet, IAF/CLIODN and ***S. Chernikov***, UNOOSA
With Closing Remarks from the LOC, ESA, IAF, UN-OOSA, IAA, COSPAR and a briefing on the 2013 events

7.2 Young Professionals IPMC Workshop (29 September 2012)

Time: 13:00 – 19:00
Location: Ischia (Palacongressi)

The IAF's International Project Management Committee (IPMC) Young Professionals Workshop is organising a workshop to gather inputs from young professionals in the international space community on their interests, concerns and training needs as young space professionals. The workshop – which is being planned in coordination with the IAF's Young Professionals/Workforce Development Committee – is being held to provide IAF member organisations with the knowledge they need to better develop and empower the next generation space workforce.

The workshop participants – 50 young space professionals (under 35 years of age) nominated by IPMC and IAF member organisations – will take part in several discussions around topics including mentorship, exchange opportunities and challenges facing the next generation.

The International Project Management Committee plans to produce a report on the results of the workshop and recommendations of the participants which will be made available to interested IAF member organisations in late 2012 or early 2013.

7.3 Academy Day (30 September 2012)

International Academy of Astronautics (IAA)
Jointly with the Pontificia Academia Scientiarum

Location: Palacongressi, Mostra d'Oltremare, Naples

IAA Plenary Session

14:00 **Welcome Addresses** *by Madhavan Nair, President, International Academy of Astronautics, and H. Ex. The Most Rev. Marcelo Sánchez Sorondo, Chancellor, the Pontifical Academy of Sciences*

50th anniversary of the Kosmos-1 spacecraft designed and launched by Yuzhnoye, *by Leonid Kuchma, Ukraine*

Laurels for Team Achievements Introduction *by Yannick d'Escatha, France, Vice-President IAA*

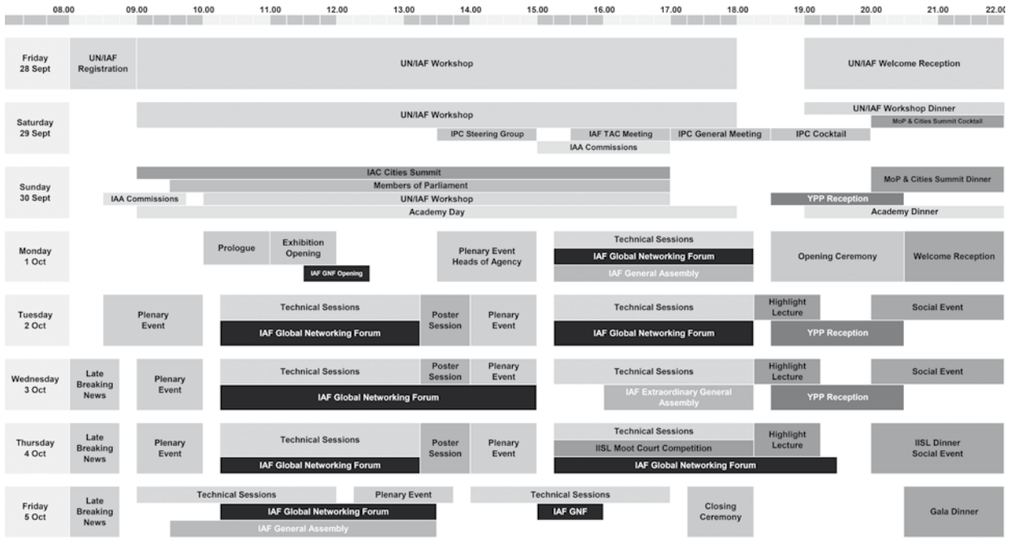
Laurels for Team Achievement: the Messenger Mission, the first to orbit Mercury, as a breakthrough in scientific solar system exploration, *by Ralph McNutt, USA*

IAA Summit Follow-on Activities Overview

Heads of Space Agencies Roundtable on Summit Follow-on

8 Conference Programme

8.1 Programme at a Glance



8.2 Monday, 1 October

10:00 – 11:00 Prologue - "Italy – A Strong Partner in Space"

Location: Hall 5

Congress Presentation:
- ***Berndt Feuerbacher,*** President, International Astronautical Federation
- ***Enrico Saggese,*** President, Italian Space Agency (ASI)

Local Institutional Greetings
- ***Luigi De Magistris,*** Major of Naples
- ***Stefano Caldoro,*** President of the Campania Region
- ***Luigi Cesaro,*** President of Naples Province

Focus: "The Economic Growth of the Local AeroSpace Industries"
- ***Maurizio Maddaloni,*** President of the Chamber of Commerce of Naples

Messages
- ***Francesco Profumo,*** Minister of Education, University and Research; President of ESA Ministerial Council
- ***Giampaolo Di Paola,*** Minister of Defense (tbc)

11:00 – 12:00 Exhibition Opening

Location: Hall 1-3

11:30 – 12:15 IAF Global Networking Forum – see page 49

13:30 – 15:00 Plenary 1: Heads of Agencies

Location: Hall 5

Heads of Agencies will provide an overview of their current programmes and insight into future plans, giving views on actual developments and potential international opportunities. An interactive discussion with the audience will follow.

Panellists:

Charles Bolden
Administrator,
National Aeronautics and Space Administration (NASA),
United States

Jean-Jacques Dordain
Director General,
European Space Agency (ESA)

Yafeng Hu
Executive Vice-Chairman, Coordination Committee for International Cooperation
China National Space Administration (CNSA),
China

Steve MacLean
President,
Canadian Space Agency (CSA),
Canada

Vladimir Popovkin
Head,
Federal Space Agency (Roscosmos),
Russia

K Radhakrishnan
Chairman,
Indian Space Research Organisation (ISRO),
India

Enrico Saggese
President,
Italian Space Agency (ASI),
Italy

Keiji Tachikawa,
President,
Japan Aerospace Exploration Agency (JAXA),
Japan

Moderator: ***Uli Bobinger***

15:15 – 15:45 IAF Global Networking Forum – see page 49

15:15 – 18:15 Technical Sessions

No	Description	Room
A1.1	Behaviour, Performance and Psychosocial Issues in Space	TS12 (Stromboli, Palacongressi)
A2.1	Gravity and Fundamental Physics	TS05 (Betelgeus, Hall 2)
A3.1	Space Exploration Overview	Plenary (Sala Europa, Palacongressi)
A6.1	Measurements	TS02 (Centauri, Hall 2)
B2.1	Near-Earth and Interplanetary Communications	TS13 (Panarea, Palacongressi)
B3.1	Overview Session (Present and Near-Term Human Space Flight Programmes)	TS11 (Egadi, Palacongressi)
B4.2	Small Space Science Missions	TS09 (Spica, Hall 3)
B6.4	Flight Control Operations Virtual Forum	TS19 (Vega, Palacongressi)
C1.1	Guidance, Navigation and Control (1)	TS01 (Aldebaran, Hall 1)
C2.1	Space Structures 1 - Development and Verification (Space Vehicles and Components)	TS07 (Regulus, Hall 3)
C3.1	Space-Based Solar Power Architectures – New Governmental and Commercial Concepts and Ventures	TS17 (Corsica, Palacongressi)
C4.1	Propulsion System (1)	TS14 (Capri, Palacongressi)
D1.1	Innovative and Visionary Space Systems Concepts	TS06 (Canopus, Hall 3)
D2.1	Launch Vehicles in Service or in Development	TS16 (Sicilia, Palacongressi)
D3.1	Strategies & Architectures as the Framework for Future Building Blocks in Space Exploration and Development	TS04 (Antares, Hall 2)
E1.1	Ignition - Primary Space Education	TS18 (Sardegna, Palacongressi)
E1.8	Space Culture: Innovative Approaches for Public Engagement in Space	TS18 (Sardegna, Palacongressi)
E2.1	Student Conference – Part 1	TS03 (Altair, Hall 2)
E3.1	National and international space policies and programmes for socio-economic development	TS08 (Rigel, Hall 3)
E4.1	Memoirs and Organisational Histories	TS10 (Sirius, Hall 3)

18:30 – 20:30 Opening Ceremony

Location: Arena Flegrea

For the first time in the evening, enjoy the IAC Opening Ceremony in a 6,000 seat open-air theatre. The theatre, called Arena Flegrea, is inside the congress venue Mostra d'Oltremare and is one of the largest modern arenas in Europe. Built in white travertine, the Arena Flegrea blends harmoniously with a silent and crisp landscape that makes up its backstage. In this setting, under the magnificent light effects created by the sunset, the entertainment and music on stage will enchant delegates with Naples' extraordinary cultural and artistic heritage.

The Ceremony will feature the musical "T'Ammore" and speeches, amongst others, by ESA Astronaut Roberto Vittori, the Presidents of IAF and ASI, Maurizio Maddaloni, President of the Chamber of Commerce of Naples, and Riccardo Monti, President of ICE. It will further honour former IAF President Luigi Napolitano with a Memorial Award.

20:30 – 22:30 Welcome Reception

Location: Exhibition, Hall 1-3

8.3. Tuesday, 2 October

08:30 – 10:00 Plenary 2: Small and Medium Satellites: a High Potential for Operators

Location: Plenary (Sala Europa, Palacongressi)

This Plenary Event will address the growing interest of using small satellite to reduce costs and secure a reliable access to space. Panellists will also be asked to share their thoughts on the possibility for emerging nations to get a reliable access to space using these platforms for the benefit of their citizens. Could the electrical propulsion system become a reliable alternative to conventional chemical propulsion?

Panellists:

James Chilton
Vice President and Programme Manager,
Exploration Launch Systems, Space Exploration
Boeing Defense, Space & Security
United States

Özkan Dalbay (invited)
President & CEO,
Turksat Satellite Communication AS

Carlos Espinos Gomez
CEO,
Hispasat, S.A.
Spain

Marco Fuchs
CEO and Chairman of the Management Board,
OHB Technology AG,
Germany

Carlo Gualdaroni
CEO,
Telespazio
Italy

Luigi Pasquali,
CEO,
Thales Alenia Space Italy
Italy

K Radhakrishnan
Chairman,
Indian Space Research Organisation (ISRO),
India

INTRODUCTION
Jean-Yves Le Gall
Chairman and CEO,
Arianespace
France

MODERATOR
Mario Cosmo
Italian Space Agency (ASI),
Italy

10:00 – 11:30 IAF Global Networking Forum – see page 49

10:15 – 13:15 Technical Sessions

No	Description	Room
A1.2	Human Physiology in Space	TS12 (Stromboli, Palacongressi)
A2.2	Fluid and Materials Sciences	TS05 (Betelgeus, Hall 2)
A3.2A	Moon Exploration – Part 1	TS15 (Ischia, Palacongressi)
A6.2	Modelling and Risk Analysis	TS02 (Centauri, Hall 2)
B1.1	International Cooperation in Earth Observation Missions	TS03 (Altair, Hall 2)
B2.2	Advanced Technologies	TS13 (Panarea, Palacongressi)
B3.2	How Can We Best Apply Our Experience to Future Human Missions?	TS11 (Egadi, Palacongressi)
B4.1	13th UN/IAA Workshop on Small Satellite Programmes at the Service of Developing Countries	TS09 (Spica, Hall 3)
B6.3	Training Relevant for Operations	TS08 (Rigel, Hall 3)
C1.2	Guidance, Navigation and Control (2)	TS01 (Aldebaran, Hall 1)
C2.2	Space Structures 2 - Development and Verification (Deployable and Dimensionally Stable Structures)	TS07 (Regulus, Hall 3)
C3.2	Wireless Power Transmission Technologies, Experiments and Demonstrations	TS17 (Corsica, Palacongressi)
C4.2	Propulsion System (2)	TS14 (Capri, Palacongressi)
D1.2	Enabling Technologies for Space Systems	TS06 (Canopus, Hall 3)
D2.2	Launch Services, Missions, Operations and Facilities	TS16 (Sicilia, Palacongressi)
D4.1	Novel Concepts and Technologies	TS04 (Antares, Hall 2)
E1.2	Lift Off - Secondary Space Education	TS18 (Sardegna, Palacongressi)
E2.2	Student Conference – Part 2	TS19 (Vega, Palacongressi)
E7.1	Nandasiri Jasentuliyana Keynote Lecture on Space Law & 4th Young Scholars Session	TS10 (Sirius, Hall 3)

13:15 – 14:00 Poster Session

No	Description	Room
A3.2D	Moon Exploration – Poster session	Poster Area (Hall 1)

14:00 – 15:00 Plenary 3: Commercial Space Transportation Initiatives - How Fast Are We Moving and Where Are We Going?

Location: Plenary (Sala Europa, Palacongressi)

Today commercial space transportation is still in its early stage, and many problems have to be tackled in the fields of technology, engineering, physiology, regulations, business, etc. However, concrete steps are being made on spaceports, suborbital flights, space tourism, and orbital reach access to ISS as well, with achieved launch capabilities slowly diffusing also among space developing nations. Several studies agree that in few decades the number of people spending days, weeks, months or even years in LEO could reach hundreds or thousands.

The Plenary Event will provide a snapshot of the political, economic, and technical landscapes to best determine if, when and how much humankind could be ready to embark on futuristic scenarios based on massive space commercialisation.

Panellists:

Alan Bond
Founding Director,
Reaction Engines,
United Kingdom

William Gerstenmaier
Associate Director, Human Exploration and Operations Mission Directorate,
National Aeronautics and Space Administration (NASA),
United States

Jean-Yves Le Gall
Chairman and CEO,
Arianespace,
France

George Nield
Associate Administrator for Commercial Space Transportation,
Federal Aviation Administration (FAA),
United States

Silvio Sandrone
Head of Business & New Programmes Development
Astrium Space Transportation,
France

Georges Whitesides
CEO,
Virgin Galactic,
United States

MODERATOR
Simonetta di Pippo
Head of European Space Policy Observatory,
Italian Space Agency (ASI),
Italy

15:00 – 17:45 IAF Global Networking Forum – see page 49

15:15 – 18:15 Technical Sessions

No	Description	Room
A2.3	Microgravity Experiments from Sub-Orbital to Orbital Platforms	TS05 (Betelgeus, Hall 2)
A3.2B	Moon Exploration – Part 2	TS15 (Ischia, Palacongressi)
A4.1	SETI 1: SETI Science and Technology	TS12 (Stromboli, Palacongressi)
A5.1	Near Term Strategies for Lunar Surface Infrastructure	TS13 (Panarea, Palacongressi)
A6.3	Hypervelocity Impacts and Protection	TS02 (Centauri, Hall 2)
B1.2	Future Earth Observation Systems	TS03 (Altair, Hall 2)
B4.3	Small Satellite Operations	TS09 (Spica, Hall 3)
C1.4	Mission Design, Operations and Optimisation (1)	TS01 (Aldebaran, Hall 1)
C2.3	Space Structures - Dynamics and Microdynamics	TS07 (Regulus, Hall 3)
C3.3	Advanced Space Power Technologies and Concepts	TS17 (Corsica, Palacongressi)
C4.9	Propulsion concepts and studies	TS14 (Capri, Palacongressi)
D1.3	System Engineering Tools, Processes and Training (1)	TS06 (Canopus, Hall 3)
D2.3	Upper Stages, Space Transfer, Entry and Landing Systems	TS16 (Sicilia, Palacongressi)
D6.1	Commercial Space Flight Safety and Emerging Issues	TS11 (Egadi, Palacongressi)
E1.4	In Orbit - Postgraduate Space Education	TS18 (Sardegna, Palacongressi)
E2.3	Student Team Competition	TS19 (Vega, Palacongressi)
E3.2	International cooperation: goals, constraints and means	TS08 (Rigel, Hall 3)
E6.4-D4.2	Joint Session on Global Public/Private Innovative Initiatives in Spaceflight	TS04 (Antares, Hall 2)
E7.2	The Interaction between International Private Law and Space Law and its Impact on Commercial Space Activities	TS10 (Sirius, Hall 3)

18:15 – 19:15 Highlight Lecture 1: Outcome of the World Radiocommunication Conference 2012 (WRC-12) and Future Challenges for Space Services

Location: Plenary (Sala Europa, Palacongressi)

This Highlight Lecture will address the critical issue of orbit/spectrum resource and its regulation through a legal regime which is codified in the ITU Constitution/Convention and the Radio Regulations. These instruments contain the main principles and lay down the specific regulations governing the following major elements:

- frequency spectrum allocations to different categories of radiocommunication services;
- rights and obligations of Member administrations in obtaining access to the spectrum/orbit resources;
- international recognition of these rights by recording frequency assignments and, as appropriate, orbital positions used or intended to be used in the Master International Frequency Register.

It will in particular present the outcome of the recently held World Radiocommunication Conference (WRC-12) and review ITU's plans to improve the frequency allocation mechanisms and other issues related to the needs of space-based systems.

Speaker:

Yvon Henri
Chief,
Space Services Department,
ITU Radiocommunication Bureau,
Switzerland

18:30 – 20:30 YPP Reception – see page 54

8.4 Wednesday, 3 October

08:00 – 08:45 Late Breaking News 1: Shenzhou-9 Mission

Location: Plenary (Sala Europa, Palacongressi)

Speaker: Yang Liu, Shenzhou-9 Astronaut, China

09:00 – 10:00 Plenary 4: Improving the Quality of Life on Earth – Societal Impacts of Human Space Flight

Location: Plenary (Sala Europa, Palacongressi)

Successful human space flight missions are enabled by solving difficult health, performance and environmental issues. Many of the challenges of developing new technologies to keep humans safe and productive in space can also benefit the quality of life on Earth. Executives from six space agencies will discuss the successful use of partnerships to develop technologies that have benefits to human space flight and terrestrial applications from the earliest possible stages of technology development.

This Plenary Event will be followed by a number of panel discussion on the same topic within the framework of the IAF Global Networking Forum from 10:15-15:00 in the Exhibit Hall Nr 2 that will include presentations, a keynote address, and an interactive panel session. A light lunch will be provided by Wyle.

Panellists:

William Gerstenmaier
Associate Director, Human Exploration and Operations Mission Directorate,
National Aeronautics and Space Administration (NASA),
United States

Jean-Marc Comtois
Director, Astronauts, Life Science and Space Medicine
Canadian Space Agency (CSA),
Canada

Anatoli Grigoriev
Russian Federation Institute For Biomedical Problems (IBMP),
Federal Space Agency (ROSCOSMOS),
Russia

Chiaki Mukai,
Astronaut and Vice Director for Human Space Systems and Utilization Mission Directorate,
Japan Aerospace Exploration Agency (JAXA),
Japan

Thomas Reiter
Director of Human Spaceflight and Operations,
European Space Agency (ESA),
Netherlands

Johann-Dietrich Wörner
Chairman of the Executive Board,
German Aerospace Center (DLR),
Germany

MODERATOR
Jeffrey R. Davis
Director, Human Health and Performance,
National Aeronautics and Space Administration (NASA),
United States

10:15 – 13:15 Technical Sessions

No	Description	Room
A1.3	Medical Care for Humans in Space	TS12 (Stromboli, Palacongressi)
A2.4	Science Results from Ground Based Research	TS05 (Betelgeus, Hall 2)
A3.3A	Mars Exploration – Part 1	TS15 (Ischia, Palacongressi)
A4.2	SETI 2: SETI and Society	TS18 (Sardegna, Palacongressi)
A6.4	Mitigation and Standards	TS02 (Centauri, Hall 2)
B1.3	Earth Observation Sensors and Technology	TS03 (Altair, Hall 2)
B2.3	Advanced Systems	TS13 (Panarea, Palacongressi)
B3.3	ISS Utilisation	TS11 (Egadi, Palacongressi)
B4.4	Small Earth Observation Missions	TS09 (Spica, Hall 3)
C1.3	Guidance, Navigation and Control (3)	TS01 (Aldebaran, Hall 1)
C2.4	New Materials and Structural Concepts	TS07 (Regulus, Hall 3)
C4.3	Propulsion Technology	TS14 (Capri, Palacongressi)
D2.4	Future Space Transportation Systems	TS16 (Sicilia, Palacongressi)
D3.2	Systems and Infrastructures to Implement Future Building Blocks in Space Exploration and Development	TS04 (Antares, Hall 2)
E3.3	Space Economy: Valuing the Uses	TS08 (Rigel, Hall 3)
E5.1	Space Technologies - Earth Applications	TS17 (Corsica, Palacongressi)
E6.1	Entrepreneurship and Investment for Innovations in Commercial Space Access Activities	TS06 (Canopus, Hall 3)
E7.3	The International Legal Regulation of Outer Space within the Scope of Public International Law	TS10 (Sirius, Hall 3)
E8.1	Multilingual Astronautical Terminology	TS19 (Vega, Palacongressi)

10:15 – 15:00 IAF Global Networking Forum – see page 50

12:30 – 13:30 Masters with Masters

Location: Plenary (Sala Europa, Palacongressi)

The 2012 International Astronautical Congress is featuring a special "Masters with Masters" knowledge sharing session, bringing together two experienced European space programme managers – Dino Brondolo, Director of Infrastructure Programmes at Thales-Alenia Space in Torino, Italy and Alan Thirkettle, Head of the Human Spaceflight Projects Department of the European Space Agency (prior to his retirement in 2008).

During the one-hour session, moderated by NASA Academy of Program/Project and Engineering Leadership (APPEL) Director Edward Hoffman, these two European space programme managers will reflect on the challenges they faced in working together to develop Europe's highly successful human spaceflight systems, including the Columbus Module, Automated Transfer Vehicle, the Nodes and the Cupola. Mr Brondolo and Mr Thirkettle will also discuss the key factors that helped them succeed in their space careers and share their perspectives on the future of international collaboration in space exploration.

This Masters with Masters session is one of a series of events organised by the International Programme/Project Management Committee of the International Astronautical Federation in collaboration with NASA's APPEL programme. The event is open to all IAC 2012 attendees. The Masters with Masters event will also be video-taped and made available by the IAF, ESA and NASA on the internet for later viewing by interested space programme professionals, students and others.

13:15 – 14:00 Poster Session

Location: Poster Area (Hall 1)

14:00 – 15:00 Plenary 5: Disaster Monitoring From Space

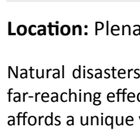
Location: Plenary (Sala Europa, Palacongressi)

Natural disasters, whether from tsunamis, fires, earthquakes, volcanoes or other phenomena, can have both immediate and far-reaching effects on the population and the ecology of the land as the recent tsunami on the coast of Japan has shown. Space affords a unique vantage point from which to observe the impact and can help with critical relief efforts. This topic is particularly relevant for the Naples conference given its proximity to Mt. Vesuvius and the ever-active Mt. Etna, and the vital and critical part that Europe plays in disaster relief around the world.

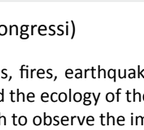
The Plenary Event will be broken into three elements:

1. The first part will concentrate on the role of space in the pre-crisis period (risk assessment, prevention and preparedness), including in particular consideration and presentation of a large range of usable sensors and missions.
2. The second part will be dedicated to the role of space in crisis response, including the role of the International Disaster Charter: how it works, its main achievements to date and future challenges.
3. The third part will consider post crisis disaster management with an important consideration of user needs and trying to encompass volcanoes, earthquakes, tsunamis and other disasters.

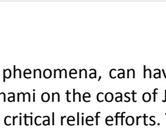
Panellists:



Maurice Borgeaud
Head of Department,
Science, Applications and Future Technologies
Earth Observation Directorate,
European Space Agency (ESA)



Masanori Homma
Executive Director,
Space Applications Mission, Spectrum Management, Space Tracking and Data Acquisition, and Environmental Test Technology,
Japan Aerospace Exploration Agency (JAXA),
Japan



Francesco Pisano
Manager of UNOSAT (Operational Satellite Applications Programme),
United Nations Institute for Training and Research (UNITAR)

MODERATOR
Paul Kamoun
Director of European Business,
Thales Alenia Space,
France

15:15 – 18:15 Technical Sessions

No	Description	Room
A1.4	Radiation Fields, Effects and Risks in Human Space Missions	TS12 (Stromboli, Palacongressi)
A2.5	Facilities and Operations of Microgravity Experiments	TS05 (Betelgeus, Hall 2)
A3.3B	Mars Exploration – Part 2	TS15 (Ischia, Palacongressi)
A5.2	Long Term Scenarios for Human Moon/Mars Presence	TS13 (Panarea, Palacongressi)
A6.5	Space Debris Removal Issues	TS02 (Centauri, Hall 2)
B1.4	Earth Observation Data Management Systems	TS03 (Altair, Hall 2)
B3.4-B6.5	Sustainable Operation of the ISS - Joint Session of the Human Space Endeavours and Space Operations Symposia	TS11 (Egadi, Palacongressi)
B4.7A	Space Systems and Architectures Featuring Cross-Platform Compatibility	TS09 (Spica, Hall 3)

B4.7B	Small Distributed Space Missions	TS09 (Spica, Hall 3)
C1.5	Mission Design, Operations and Optimisation (2)	TS01 (Aldebaran, Hall 1)
C2.5	Smart Materials and Adaptive Structures	TS07 (Regulus, Hall 3)
C4.4	Electric Propulsion	TS14 (Capri, Palacongressi)
D1.4	Space Systems Architectures	TS06 (Canopus, Hall 3)
D2.5	Future Space Transportation Systems Technologies	TS16 (Sicilia, Palacongressi)
D3.3	Novel Concepts and Technologies for Enable Future Building Blocks in Space Exploration and Development	TS04 (Antares, Hall 2)
E1.3	On Track - Undergraduate Space Education	TS18 (Sardegna, Palacongressi)
E3.4	National policies and regional cooperation	TS08 (Rigel, Hall 3)
E5.2	Moon, Mars and Beyond: Analogues, Habitation and Spin-Offs	TS17 (Corsica, Palacongressi)
E7.4	Legal Evidence from Outer Space	TS10 (Sirius, Hall 3)
YPVF.1	Space Communications and Navigation (SCAN)	TS19 (Vega, Palacongressi)

18:15 – 19:15 Highlight Lecture 2: The New Face of the Sun from Space. From Nuclear Fusion to Climate Change

Location: Plenary (Sala Europa, Palacongressi)

Since the beginning of the space age, the Sun, our star, has been subject to extensive observations by all space fairing nations. Some 20 satellites have allowed a continuous Survey of the Sun, its total and spectral irradiance as well as its magnetic activity. We now know where inside the Sun does solar variability finds its sources. The solar sunspot cycle is observed since Galileo back in 1610, but only now thanks to space observations are we able to accurately quantify and monitor its effects on the Earth, in particular its influence on our climate and on our electromagnetic environment, the so-called space weather. Following the very successful ESA-NASA SOHO mission, new and outstanding observations have been made, in particular with the NASA Stereo, SDO and the JAXA Hinode missions, which revolutionize our understanding of the physical mechanisms governing the behaviour of our Sun. The lecture will review some of these spectacular results in the perspective of the development of new missions and of forecasting how our star may change our future life on Earth.

Speaker:

Roger-Maurice Bonnet
Executive Director,
International Space Science Institute(ISSI),
Switzerland

18:30 - 20:30 YPP Reception - Speed Networking Social – see page 54

8.5 Thursday, 4 October

08:00 – 08:45 Late Breaking News 2: MSL Mission

Location: Plenary (Sala Europa, Palacongressi)

Speaker: Richard Cook, Mars Science Laboratory (MSL) Project Manager, United States

09:00 – 10:00 Plenary 6: International Initiatives for the Safe and Sustainable Use of Outer Space

Location: Plenary (Sala Europa, Palacongressi)

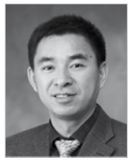
The Draft Code of Conduct for Space Operations, presented by the European Union, launched an intense diplomatic negotiation process on multilateral transparency and confidence-building measures. In parallel, UNCOPUOS has started to deliberate on the sustainable use of outer space. Both initiatives respond to the need to make outer space at the same time safe for all operations and open for all States that want to use it now and in the future. This Plenary brings together key personalities in these negotiation processes, which will shape the cooperative framework for space activities in the future.

Panellists:

Gérard Brachet
President,
Member UN Governmental Group of Experts (GGE) on Outer Space Transparency and Confidence Building Mesures, France

Tare Brisibe
Chairman,
UNCOPUOS Legal Subcommittee,
Nigeria

Yasushi Horikawa
Chairman,
UNCOPUOS,
Japan



Shouping Li
Director of the Institute of Space Law,
Beijing Institute of Technology (BIT),
China

Sergio Marchisio
IISL/ECSL,
Italy

Peter Martinez
Chairman,
Working Group on Long-Term Sustainability UN COPUOS-STSC,
South Africa

K.R.S. Murthi
National Institute of Advanced Studies,
India

Jana Robinson
European Space Policy Institute,
Austria

MODERATOR
K. Hodgkins
U.S. Department of State,
United States

MODERATOR
Kai-Uwe Schrogl
European Space Agency,
France

10:15 – 13:15 Technical Sessions

No	Description	Room
A1.5	Astrobiology and Exploration	TS12 (Stromboli, Palacongressi)
A2.6	Microgravity Sciences Onboard the International Space Station and Beyond - Part 1	TS05 (Betelgeus, Hall 2)
A3.4	Small Bodies Missions and Technologies	TS15 (Ischia, Palacongressi)
B2.4	Fixed and Broadcast Communications	TS13 (Panarea, Palacongressi)
B3.5	Astronauts: Those Who Make It Happen	TS11 (Egadi, Palacongressi)
B4.6A	Generic Technologies for Small/Micro Platforms	TS09 (Spica, Hall 3)
B5.1	Integrated Applications End-to-End Solutions	TS03 (Altair, Hall 2)
C1.6	Orbital Dynamics (1)	TS01 (Aldebaran, Hall 1)
C2.6	Space Environmental Effects and Spacecraft Protection	TS07 (Regulus, Hall 3)
C4.5	Hypersonic and Combined Cycle Propulsion	TS14 (Capri, Palacongressi)
D1.5	Lessons Learned in Space Systems	TS06 (Canopus, Hall 3)
D2.6	Future Space Transportation Systems Verification and In-Flight Experimentation	TS16 (Sicilia, Palacongressi)
D4.3	Space Elevator Feasibility and Technology	TS04 (Antares, Hall 2)
D5.1	Insuring Quality and Safety in a Cost Constrained Environment: Which Trade-Off?	TS02 (Centauri, Hall 2)
E1.5	Enabling the Future - Developing the Space Workforce	TS18 (Sardegna, Palacongressi)
E4.2	Scientific and Technical Histories	TS10 (Sirius, Hall 3)
E5.3	Human Habitation Beyond Low Earth Orbit	TS17 (Corsica, Palacongressi)
E7.6-E3.5	27th IAA/IISL Scientific-Legal Round Table "Optical Communication"	TS08 (Rigel, Hall 3)
YPVF.2	Human Space Endeavours Young Professionals Virtual Forum (HSE)	TS19 (Vega, Palacongressi)

10:15 – 12:30 IAF Global Networking Forum – see page 51

13:15 – 14:00 Poster Session

Location: Poster Area (Hall 1)

14:00 – 15:00 Plenary 7: Next Generation Visions for Uses of Social Media for the Advancement of Earth and Space Science, Technology and Operations

Location: Plenary (Sala Europa, Palacongressi)

Social media is becoming a larger part of everyday life. Whether it is simple texting, flash events, like/dislike polling or pronouncements from politicians, social media is used more and more to distribute, decide and declare. Although often thought of as an outreach and communication tool, several groups, such as Zooniverse, DeforestAction and UrtheCast, have started to use social media and crowd sourcing for science. The growth in the use and capabilities of social media presents many opportunities for the aerospace industry. What are some of the current uses of new media in space? What are some new ideas to use social media to support in-space activities? Can social media tools, in the long term, reduce the costs of science, get the public actively engaged in discoveries and inspire new generations of scientists and explorers? In this plenary, we will hear answers to these questions and more from a panel of 21-35 year old experts on how the use of social media and citizen science will enhance space missions and technology while engaging and exciting the public.

Panellists:

Jessica Culler,
San Jose State University,
United States

Emma Fry,
University of Alabama Huntsville,
United States

Rafael Jorda-Siquier,
Polythecnic University of Catalonia,
Spain

Aafaque Khan,
Maulana Azad National Institute of Technology(MANIT),
India

Ruth McAvinia,
EJR Quarts,
Ireland/The Netherlands

MODERATOR
Bill Nye,
The Planetary Society,
United States

14:00 – 18:00 21st MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

Organised by the International Institute of Space Law (IISL)

Location: Palazzo Du Mesnil, Università degli studi di Napoli "L'Orientale", Naples, Italy

The Manfred Lachs Space Law Moot Court Competition is organised annually by the International Institute of Space Law. Preliminary regional competitions are organised each spring. The winning teams of the regionals meet in the World Finals held in conjunction with the annual IISL Space Law Colloquium, and are traditionally judged by sitting Judges of the International Court of Justice in The Hague.

This year, for the 21st competition, four teams, representing Europe, North America, Asia Pacific and, for the first time, Africa, will compete in the World Finals. These events will take place in Naples, Italy, during the IAC. The 2012 hypothetical problem is entitled the "Case concerning On-orbit Collision, Non-cooperative Satellite Removal, and Damages" (Verona v Montague).

The Semi-finals will be held on Tuesday, 2 October in a closed session at the Congress Centre where the 63rd International Astronautical Congress will take place. The Final Round will be held on Thursday, 4 October from 14:00 – 18:00 at the Palazzo Du Mesnil of the Università degli studi di Napoli "L'Orientale" (access through Via Chiatamone 61/62, Napoli). Three Members of the International Court of Justice will judge the Final Round.

After the announcement of the winning team and remittance of awards, the IISL will host its annual Awards Dinner, reserved for IISL members and special guests who will receive their invitations, at a restaurant in the Via Partenope/Lungomare area.

Timings are subject to confirmation at the start of the IAC and will be announced at various locations.

All who are interested to attend the Final Round are welcome. Those wishing to attend are requested to contact IISL, so as to arrange for bus transportation.

A Summary of the Problem will be available in advance.
Representatives of the Media wishing to attend may contact the IISL Secretary or IAC organisers.

IISL Website: www.iislweb.org
Competition: http://www.iislweb.org/lachsmoot/

Manfred Lachs Space Law Moot Court Committee Co-Chairs:
Martha Mejía-Kaiser, lachsmootchair2@iislweb.org
Les Tennen, lachsmootchair1@iislweb.org

IISL Executive Secretary: Corinne M. Jorgenson, secretary@iislweb.org
IISL Assistant Executive Secretary: PJ Blount, assistant@iislweb.org

15:15 – 18:15 Technical Sessions

No	Description	Room
A1.6	Life Support and EVA Systems	TS12 (Stromboli, Palacongressi)
A2.7	Microgravity Sciences Onboard the International Space Station and Beyond - Part 2	TS05 (Betelgeus, Hall 2)
A3.5	Solar System Exploration	TS15 (Ischia, Palacongressi)
A5.3-B3.6	Joint Session on Human and Robotic Partnerships to Realise Space Exploration Goals	TS11 (Egadi, Palacongressi)
B1.5	Earth Observation Applications and Economic Benefits	TS03 (Altair, Hall 2)
B2.5	Mobile Satellite Communications and Navigation Technology	TS13 (Panarea, Palacongressi)
B4.6B	Generic Technologies for Nano/Pico Platforms	TS09 (Spica, Hall 3)
B6.1	Human Spaceflight Operations	TS08 (Rigel, Hall 3)
C1.7	Orbital Dynamics (2)	TS01 (Aldebaran, Hall 1)
C2.7	Space Vehicles – Mechanical/Thermal/Fluidic Systems	TS07 (Regulus, Hall 3)
C4.6	New Missions Enabled by New Propulsion Technology and Systems	TS14 (Capri, Palacongressi)
D2.7	Small Launchers: Concepts and Operations	TS16 (Sicilia, Palacongressi)
D4.4	Contribution of Space Activities to Solving Global Societal Challenges	TS04 (Antares, Hall 2)
D5.2	Knowledge Management and Collaboration in Space Activities	TS02 (Centauri, Hall 2)
E1.6	Calling Planet Earth - Space Outreach to the General Public	TS18 (Sardegna, Palacongressi)
E4.3A	History of Italian Contribution to Astronautics	TS10 (Sirius, Hall 3)
E4.3B	Tribute to Wernher von Braun, born 100 years ago	TS10 (Sirius, Hall 3)
E5.4	Space as an Artistic Medium	TS17 (Corsica, Palacongressi)
E6.2	Entrepreneurship and Investment for Commercial in-Space Activities	TS06 (Canopus, Hall 3)
YPVF.3	Global Earth Observation System of Systems (GEOSS)	TS19 (Vega, Palacongressi)

15:15 – 16:30 IAF Global Networking Forum – see page 51

18:00 – 20:00 IAF Global Networking Forum – see page 51

18:15 – 19:15 Highlight Lecture 3: The Kepler Space Mission for the Search of Earth-like Planets

Location: Plenary (Sala Europa, Palacongressi)

The highlight lecture will be devoted to a presentation of the Kepler mission and a discussion of the main discoveries in the context of the current knowledge of what exoplanet systems are like. How common are Jupiter-like planets relative to super Earths and their orbital periods in order to derive whether or not there are habitable Earth-like planets.

Speaker:

William Borucki
Space Scientist,
NASA Ames Research Center,
United States

8.6 Friday, 5 October

08:00 – 08:45 Late Breaking News 3: SpaceX Dragon visit to the International Space Station

Location: Plenary (Sala Europa, Palacongressi)

Speaker: Barry Matsumori, Senior Vice President of Commercial Sales and Business Development, SpaceX, USA

09:00 – 12:00 Technical Sessions

No	Description	Room
A1.7	Biology in Space	TS12 (Stromboli, Palacongressi)
A3.2C	Moon Exploration – Part 3	TS19 (Vega, Palacongressi)
A5.4	Going Beyond the Earth-Moon System: Human Missions to Mars, Libration Points, and NEO's	TS13 (Panarea, Palacongressi)
A6.6	Political, Economic and Institutional Aspects of Space Debris Mitigation and Removal (Joint with Space Security Committee)	TS02 (Centauri, Hall 2)
B1.6	Dual Use Earth Observation	TS03 (Altair, Hall 2)
B2.6	Space-Based Navigation Systems and Services	TS05 (Betelgeus, Hall 2)
B3.7	New Technologies, Processes and Operating Modes Enabling Future Human Missions	TS11 (Egadi, Palacongressi)
B4.8	Hitchhiking to the Moon	TS09 (Spica, Hall 3)
B6.2	New Operations Concepts and Commercial Space Operations	TS08 (Rigel, Hall 3)
C1.8	Attitude Dynamics (1)	TS01 (Aldebaran, Hall 1)
C2.8	Specialised Technologies, Including Nanotechnology	TS07 (Regulus, Hall 3)
C4.7-C3.5	Joint Session on Nuclear Propulsion and Power	TS14 (Capri, Palacongressi)
D2.8	Heavy Lift Launchers Capabilities and New Missions	TS16 (Sicilia, Palacongressi)
D3.4	Space Technology and System Management Practices and Tools	TS04 (Antares, Hall 2)
E1.7	New Worlds - Innovative Space Education and Outreach	TS18 (Sardegna, Palacongressi)
E5.5A	Part 1: The Role of Art in Space Activities	TS17 (Corsica, Palacongressi)
E5.5B	Part 2: Space Assets and Disaster Management	TS17 (Corsica, Palacongressi)
E6.3	Unique Perspectives of Space Entrepreneurship and Investment	TS06 (Canopus, Hall 3)
E7.5	Recent Developments in Space Law	TS10 (Sirius, Hall 3)

10:15 – 13:00 IAF Global Networking Forum – see page 51

12:15 – 13:45 Plenary 8: The Italian Mission COSMO-Skymed: Dual Approach and Achieved Results

Location: Plenary (Sala Europa, Palacongressi)

The COSMO-SkyMed project and its products benefit citizens as well as institutional users, while providing new opportunities for businesses spanning the spectrum from startups to large companies, engaged in development of new remote sensing products and services. Through an active synergy of universities, businesses and the Italian Ministry of Defense, ASI's Matera Center is laying the foundations to be the focus for development of new methods of data analysis and interpretation, development of advanced operational tools, and for the establishment of a leading center for higher education in the field of remote sensing methods at the national and international levels.

The event is focused on:

- presenting and discussing well assessed case studies and applications in which COSMO-SkyMed data have proven to be of paramount importance for the citizen, both in natural disasters events and in environmental parameters extraction;
- discussing the advantages for remote sensing users coming from development of dual (civil and defense) systems, in particular in a period of economic difficulties;
- discussing the industrial organization of the program and potential economic returns of space remote sensing;
- discussing lessons learned from the mission and its exploitation;
- discussing perspectives of COSMO-SkyMed and future trends of microwave space remote sensing missions.

Panellists:

Alessandro Coletta
Italian Space Agency (ASI),
Italy

Yoichi Kamiyama
Japan Space Imaging,
Japan

Marcello Maranesi
e-GEOS,
Italy

Denis Moura
European Defense Agency,
Belgium

Stefano Rivola
Ministry of Defense,
Italy

MODERATOR
Mario Cosmo
Italian Space Agency (ASI),
Italy

14:00 – 17:00 Technical Sessions

No	Description	Room
A1.8	Multidisciplinary Space Life Sciences Research	TS12 (Stromboli, Palacongressi)
A3.3C	Mars Exploration – Part 3	TS15 (Ischia, Palacongressi)
A6.7	Space Debris Removal Concepts	TS04 (Antares, Hall 2)
B4.5	Access to Space for Small Satellite Missions	TS09 (Spica, Hall 3)
B5.2	Tools and Technology in support of Integrated Applications	TS03 (Altair, Hall 2)
C1.9	Attitude Dynamics (2)	TS01 (Aldebaran, Hall 1)
C2.9	Advancements in Materials Applications and Rapid Prototyping	TS07 (Regulus, Hall 3)
C3.4	Small and Very Small Advanced Space Power Systems	TS17 (Corsica, Palacongressi)
C4.8	Advanced and Combined Propulsion Systems	TS14 (Capri, Palacongressi)
D1.6	System Engineering Tools, Processes and Training (2)	TS06 (Canopus, Hall 3)
D2.9-D6.2	Joint Session on Private Human Access to Space: Sub-Orbital and Orbital Missions	TS16 (Sicilia, Palacongressi)
D5.3	Space Weather and Effects: Prediction, Analysis and Protection	TS02 (Centauri, Hall 2)
E1.9	Extended Mission	TS18 (Sardegna, Palacongressi)
E7.7-B3.8	Joint IAF/IISL Session on Legal Framework for Cooperative Space Endeavours	TS11 (Egadi, Palacongressi)

17:00 – 18:00 Closing Ceremony

Location: Plenary (Sala Europa, Palacongressi)

The Closing Ceremony provides a formal closing of the activities of the 63rd IAC.

The new President of the IAF, who will assume his responsibilities after the Congress, will be introduced to the delegates.
It is also the occasion to present the IAF's annual awards, given to individuals and groups that have distinguished themselves in space cooperation and space activities at the global level.

The Allan D. Emil Memorial Award is presented for an outstanding contribution to space science, space technology, space medicine or space law. This year's award goes to Kuminori Uesugi, who has dedicated four decades of his professional life to astrodynamics, orbital dynamics and space propulsion. His outstanding contributions to programmes such as Geotail, Hiten and Hayabusa, the first asteroid sample return mission, have significantly improved our understanding of the solar system.

The Frank J. Malina Astronautics Medal is awarded to an educator who has demonstrated excellence in taking fullest advantage of the resources available to promote the study of astronautics and related space science. This year's award goes to Amalia Ercoli Finzi, who has presented university courses on spaceflight dynamics and orbital mechanics for almost half a century. She has also held leading positions on several ESA and ASI boards and committees, and is Principal Investigator for the SD2 instrument on the Rosetta spacecraft.

The Luigi G. Napolitano Award is presented by the Space Education and Outreach Committee of the IAF to a young scientist under the age of 30 years, who has contributed significantly to the advancement of aerospace science and has given a paper at the IAC on the contribution.

The IAF Student Awards recognise the best papers presented by students at the IAC in the undergraduate and graduate categories.
At the end of the ceremony, the Congress flag will be handed over to the next host country – China.

8.7 Meeting Schedule

Time	Event	Room
	Saturday, 29 September 2012	
08:30 - 17:30	IPMC meeting	MR4 (Hall 4)
09:00 - 18:00	American Institute of Aeronautics and Astronautics (AIAA)	MR9 (Hall 4)
10:00 - 13:00	IAA Space Debris Permanent Committee	MR2 (Hall 4)
13:30 - 15:00	IPC Steering Group	MR1 (Hall 4)
14:00 - 16:00	IAA History Permanent Committee	MR8 (Hall 4)
14:00 - 17:00	Space Exploration Committee	MR2 (Hall 4)
15:00 - 17:00	IAA Commission 3	MR3 (Hall 4)
15:00 - 17:00	IAA Commission 4	MR5 (Hall 4)
15:00 - 17:00	IAA Commission 5	MR6 (Hall 4)
15:00 - 17:00	IAA Commission 6	MR7 (Hall 4)
15:30 - 16:30	Technical Activities Committee (TAC)	MR1 (Hall 4)
17:00 - 19:00	IAA Scientific Activities Committee(SAC)	MR3 (Hall 4)
17:00 - 18:30	IPC General Meeting	Ischia (Palacongressi)
18:00 - 21:00	Finance Committee	Sala Capodimonte (Royal Continental)
18:30 - 20:30	IPC Cocktail	Foyer (Palacongressi)
	Sunday, 30 September 2012	
07:30 - 13:00	Cross Cultural Workshop	MR3 (Hall 4)
08:00 - 09:45	IAA Commission 6	Egadi (Palacongressi)
08:30 - 09:45	IAA Commission 1	Sicilia (Palacongressi)
08:30 - 09:45	IAA Commission 2	Ischia (Palacongressi)
08:30 - 09:45	IAA Commission 3	Capri (Palacongressi)
08:30 - 09:45	IAA Commission 4	Panarea (Palacongressi)
08:30 - 09:45	IAA Commission 5	Stromboli (Palacongressi)
09:00 - 12:00	Space Education and Outreach Committee (SEOC)	MR2 (Hall 4)
09:00 - 18:00	IAA Academy Day	Plenary (Sala Europa, Palacongressi)
11:00 - 14:00	IAF Bureau	MR1 (Hall 4)
12:30 - 14:30	Commercial Spaceflight Safety Committee	MR5 (Hall 4)
13:30 - 15:00	WD/YPP Committee	MR4 (Hall 4)
14:00 - 15:00	ISEB	Sicilia (Palacongressi)
14:00 - 17:00	Space Propulsion Committee	MR6 (Hall 4)
14:00 - 17:00	Space Transportation Committee	MR3 (Hall 4)
14:00 - 18:00	Astrodynamics Committee	MR2 (Hall 4)
15:00 - 16:00	Earth Observations Committee	MR5 (Hall 4)
15:00 - 17:00	Microgravity Sciences and Processes Committee	MR4 (Hall 4)
16:00 - 18:00	Subcommittee on GEOSS	MR5 (Hall 4)
17:00 - 18:30	IAA Steering Committee	MR8 (Hall 4)
17:15 - 19:15	IAA Board of Trustees	Excelsior Hotel
17:30 -19:30	Materials and Structures Committee	MR6 (Hall 4)

Time	Event	Room
	Monday, 1 October 2012	
07:30 - 09:30	University of Alabama in Huntsville	Capri (Palacongressi)
08:00 - 09:00	Industry Relations Committee	MR2 (Hall 4)
09:00 - 12:00	Cross Cultural Workshop	MR5 (Hall 4)
10:00 - 11:00	Microgravity Committee	MR2 (Hall 4)
10:00 - 12:30	Space Power Committee	MR2 (Hall 4)
11:00 - 12:00	Student and Young Professional NASA	Rigel (Hall 3)
12:00 - 13:00	Honours and Awards Committee	MR5 (Mostra, Hall 4
12:00 - 13:30	Young Professional Plenary rehearsal	Plenary (Sala Europa, Palacongressi)
13:00 - 15:00	Space Systems Committee	MR2 (Hall 4)
13:00 - 15:00	Congress and Symposia Advisory Committee (CSAC)	MR3 (Hall 4)
14:00 - 15:00	Space Australia	MR5 (Hall 4)
15:00 - 17:00	IAF Chairmen of Regional Groups	MR3 (Hall 4)
15:15 - 18:15	IAF General Assembly	Ischia (Palacongressi)
	Tuesday, 2 October 2012	
07:30 - 09:30	University of Alabama in Huntsville	Capri (Palacongressi)
08:00 - 10:00	IAA Summit Human Spaceflight WG	MR3 (Hall 4)
08:00 - 13:00	Congress and Symposium Advisory Committee (CSAC)	MR5 (Hall 4)
08:00 - 18:00	IAF Nomination Committee	Sala Piano-1 (Palacongressi)
08:30 - 10: 00	Global Workforce subcommittee (Education/Outreach & YP Committees)	MR1 (Hall 4)
09:00 - 11:00	IAF/IAA/IISL Advisory Committee on History of Cooperation in Space Activities (ACHA)	MR4 (Hall 4)
10:00 - 13:00	Entrepreneurship and Investment Committee (EIC)	MR2 (Hall 4)
10:00 - 13:00	Roundtable on Space Programme Technology Transfer Societal Benefits	MR3 (Hall 4)
10:00 - 13:00	Young Professional Plenary rehearsal	Plenary (Sala Europa, Palacongressi)
10:00 - 13:30	Student Activities Subcommittee (Student competition)	MR1 (Hall 4)
13:00 - 14:30	IAA Small Sat Committee	MR3 (Hall 4)
13:00 - 15:00	Moot Court Semi-finals	MR4 and MR5 (Hall 4)
13:30 - 15:00	AAS Space Surveillance Committee	Betelgeus (Hall 3)
14:00 - 16:00	Space Economy Committee	MR6 (Hall 4)
14:00 - 16:30	Space Communications and Navigation Committee (SCAN)	MR2 (Hall 4)
14:00 - 18:00	ISEB Board of Directors	MR1 (Hall 4)
14:30 - 17:00	Human Space Endeavours Committee	MR3 (Hall 4)
15:30 - 18:00	Committee for the Cultural Utilization of Space (ITACCUS)	MR4 (Hall 4)
16:00 - 18:00	Latin America RG	MR5 (Hall 4)
17:00 - 19:30	IAA Summit Disaster Management WG	MR3 (Hall 4)
18:30 - 20:30	Young Professionals Cocktail	Ischia (Palacongressi)

Time	Event	Room
	Wednesday, 3 October 2012	
07:30 - 09:30	University of Alabama in Huntsville	Capri (Palacongressi)
07:30 - 09:30	WIA Breakfast	Catering Area (Mostra, Hall 4)
08:00 - 10:00	COPUOS Expert Group A (Sustainable Development and Space Sustainability)	MR1 (Hall 4)
08:00 - 18:00	IAF Nomination Committee	Sala Piano-1 (Palacongressi)
09:00 - 12:00	Space Education and Outreach Committee (SEOC)	MR2 (Hall 4)
09:00 - 13:00	Working Group on GNSS Inter Operability	MR4 (Hall 4)
09:00 - 18:00	International Counter Measures Working Group	MR3 (Hall 4)
10:00 - 12:00	COPUOS EG.C (Space Weather)	MR1 (Hall 4)
12:00 - 14:00	COPUOS EG. D (Space Law and Guidance for Actors)	MR1 (Hall 4)
12:00 - 14:00	Policy Advisory Committee (PAC)	MR5 (Hall 4)
12:30 -13:30	Masters with Masters Event	Plenary (Sala Europa, Palacongressi)
12:30 - 14:00	Subcommittee on Dual Use	MR2 (Hall 4)
14:00 - 17:00	Space Societies Committee (SSC)	MR1 (Hall 4)
14:00 - 18:00	ISEB Board of Directors	MR1 (Hall 4)
15:15 - 16:00	Young Professional Plenary rehearsal	Plenary (Sala Europa, Palacongressi)
14:00 - 16:00	IAA Steering Group Inter Stellar Message (SETI)	MR2 (Hall 4)
16:00 - 18:00	IAF General Assembly	IAF GNF
16:00 - 18:00	COPUOS EG. C (Space Weather)	MR2 (Hall 4)
17:00 - 20:00	COPUOS Expert Group B (Space Debris, Space Operations)	MR4 (Hall 4)
18:00 - 20:00	COPUOS Expert Group A (Sustainable Development and Space Sustainability)	MR1 (Hall 4)
18:00 - 20:00	COPUOS EG. D (Space Law and Guidance for Actors)	MR2 (Hall 4)
18:30 - 20:30	Young Professionals Cocktail	Ischia (Palacongressi)
	Thursday, 4 October 2012	
07:30 - 09:30	University of Alabama in Huntsville	Capri (Palacongressi)
07:30 - 09:00	Space Australia Breakfast	MR2 (Hall 4)
08:00 - 10:00	COPUOS EG. D (Space Law and Guidance for Actors)	MR1 (Hall 4)
08:00 - 10:00	Space Universities Administrative Committee (SUAC)	MR2 (Hall 4)
08:00 - 13:00	Congress and Symposium Advisory Committee (CSAC)	MR5 (Hall 4)
08:30 - 11:00	WSWA Board of Directors	MR6 (Hall 4)
09:00 - 12:00	Space Societies Committee (SSC)	MR3 (Hall 4)
09:00 - 19:00	IADC	MR4 (Hall 4)
09:45 - 12:45	Space Operations Committee (SOC)	Vega (Hall 3)
10:00 - 13:00	Committee on Space Security	MR2 (Hall 4)
10:00 - 14:00	IAF Bureau	MR1 (Hall 4)
11:30 - 15:30	Women In Aerospace (WIA) Board of Directors	MR6 (Hall 4)
12:30 - 14:00	IPS Steering Group	MR5 (Hall 4)
13:00 - 14:00	IAA Committee Small Sat	MR2 (Hall 4)
13:15 - 15:15	IAA History Committee	Sirius (Hall 3)
13:00 - 15:00	IAA Space Elevator Cosmic Study Meeting	MR3 (Hall 4)
14:00 - 18:00	IAA Space Power Workshop & IAA SSPWG	MR1 (Hall 4)
14:00 - 15:30	IAA Acta Astronautica Editorial Board	MR2 (Hall 4)
15:00 - 17:00	Committee for Liaison with International Organisations and Developing Nations (CLIODN)	MR3 (Hall 4)
15:00 - 19:00	COPUOS EG.C (Space Weather)	MR5 (Hall 4)
17:00 - 19:30	Astrodynamics Committee	MR2 (Hall 4)
17:00 - 20:00	COPUOS Expert Group A (Sustainable Development and Space Sustainability)	MR3 (Hall 4)
	Friday, 5 October 2012	
07:30 - 08:30	University of Alabama in Huntsville	Capri (Palacongressi)
08:00 - 16:00	COPUOS Expert Group B (Space Debris, Space Operations)	MR4 (Hall 4)
09:00 - 10:30	SGAC	MR3 (Hall 4)
09:00 - 13:30	IAF General Assembly	Ischia (Palacongressi)
09:30 - 11:45	Space Programme for Advanced Corporate Efficiency (SPACE)	MR1 (Hall 4)
14:00 - 16:00	African Regional Group	MR3 (Hall 4)
15:00 - 17:00	IAF Bureau	MR1 (Hall 4)

9 Technical Programme

9.1 Symposium Keynote Speakers

Nr.	Session name	Date	Time	Room
A1	**SPACE LIFE SCIENCES SYMPOSIUM**			
 	**Enduring the isolation of interplanetary travel: a personal account of the Mars500 mission** *Romain Charles, European Space Agency (ESA), The Netherlands* *and* *Diego Urbina, European Space Agency (ESA), The Netherlands*	1 October	15:15	TS12 (Stromboli, Palacongressi)
B1	**EARTH OBSERVATION SYMPOSIUM**			
	**Monitoring weather and climate from the geostationary orbit: The Meteosat Third Generation (MTG) Programme** *Sergio Rota, Eumetsat, Germany*	2 October	10:15	TS03 (Altair, Hall 2)
B2	**SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM**			
	**Mars Exploration Communications Relay Network support for the Mars Science Laboratory (MSL) landing and Operations** *Ramon P. De Paula, National Aeronautics and Space Administration (NASA), United States*	1 October	15:15	TS13 (Panarea, Palacongressi)
B3	**HUMAN SPACE ENDEAVOURS SYMPOSIUM**			
	**The International Space Station: the Present and the Promise for the Future** *William H. Gerstenmaier, National Aeronautics and Space Administration (NASA)/Ames Research Center, United States*	1 October	15:15	TS11 (Egadi, Palacongressi)
	**Soyuz, Shuttle, Salyut, ISS - Astronauts Perspectives** *Soichi Noguchi, Japan Aerospace Exploration Agency (JAXA) astronaut, Japan*	4 October	10:15	TS11 (Egadi, Palacongressi)

Nr.	Session name	Date	Time	Room
B4	**19th IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS**			
	**TanDEM-X: A Radar Interferometer with two Formation Flying Satellites** *Gerhard Krieger, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany*	3 October	15:15	TS09 (Spica, Hall 3)
C1	**ASTRODYNAMICS SYMPOSIUM**			
	**Expansion of our Sphere of activity with Astrodynamics and cutting edge Technology** *Junichiro Kawaguchi, Japan Aerospace Exploration Agency (JAXA), Japan*	2 October	15:15	TS01 (Aldebaran, Hall 1)
C2	**MATERIALS AND STRUCTURES SYMPOSIUM**			
	**2nd Paolo Santini Memorial Lecture: Pressurized Structures for supporting the Human Presence in Space** *Ernesto Vallerani, Associazione Italiana di Aeronautica e Astronautica (AIDAA), Italy*	2 October	10:15	TS07 (Regulus, Hall 3)
C3	**SPACE POWER SYMPOSIUM**			
	**Space and Energy - current status and outlook** *Carla Signorini, European Space Agency (ESA), The Netherlands*	1 October	15:15	TS17 (Corsica, Palacongressi)
C4	**SPACE PROPULSION SYMPOSIUM**			
	**The HYPROB Program: Mastering Key Technologies, Design and Testing Capabilities for Space Transportation Rocket Propulsion Evolution** *Pier Paolo de Matteis, CIRA Italian Aerospace Research Centre, Italy*	1 October	15:15	TS14 (Capri, Palacongressi)
D2	**SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM**			
	**Space Transportation in Italy - Past, Present and Future Perspectives** *Gennaro Russo, Associazione Italiana di Aeronautica e Astronautica (AIDAA), Italy*	5 October	09:00	TS16 (Sicilia, Palacongressi)
D6	**SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES**			
	**Commercial space launches safety in Brazil – Recent progress** *Carlos Lino, INPE, Brazil*	2 October	15:15	TS11 (Egadi, Palacongressi)

Nr.	Session name	Date	Time	Room
E1	**SPACE EDUCATION AND OUTREACH SYMPOSIUM**			
	**Inspiring the Next Generation** *Leland Melvin, National Aeronautics and Space Administration (NASA), United States*	1 October	15:15	TS18 (Sardegna, Palacongressi)
E4	**46th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM**			
	**The Development and Operational Life of SPACELAB - A Brief Story of the Italian Contribution to an International Success** *Ernesto Vallerani, Space Exploration and Develoment Systems Master, Italy*	4 October	15:15	TS10 (Sirius, Hall 3)
E5	**23rd IAA SYMPOSIUM ON SPACE ACTIVITY AND SOCIETY**			
	**The Convergence of Art, Science and Technology in Space Exploration** *Yvonne Clearwater, National Aeronautics and Space Administration (NASA), United States*	4 October	15:15	TS17 (Corsica, Palacongressi)
E7	**55th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE**			
	**Nandasiri Jasentuliyana Keynote Lecture on Space Law** *Sergio Marchisio, Italian National Research Council - CNR, Italy*	2 October	10:15	TS10 (Sirius, Hall 3)

9.2 Technical Sessions by Symposium

Nr.	Session name	Date	Time	Room
A1	**SPACE LIFE SCIENCES SYMPOSIUM**			
A1.1	Behaviour, Performance and Psychosocial Issues in Space	1 Oct	15:15	TS12 (Stromboli, Palacongressi)
A1.2	Human Physiology in Space	2 Oct	10:15	TS12 (Stromboli, Palacongressi)
A1.3	Medical Care for Humans in Space	3 Oct	10:15	TS12 (Stromboli, Palacongressi)
A1.4	Radiation Fields, Effects and Risks in Human Space Missions	3 Oct	15:15	TS12 (Stromboli, Palacongressi)
A1.5	Astrobiology and Exploration	4 Oct	10:15	TS12 (Stromboli, Palacongressi)
A1.6	Life Support and EVA Systems	4 Oct	15:15	TS12 (Stromboli, Palacongressi)
A1.7	Biology in Space	5 Oct,	09:00	TS12 (Stromboli, Palacongressi)
A1.8	Multidisciplinary Space Life Sciences Research	5 Oct,	14:00	TS12 (Stromboli, Palacongressi)
A2	**MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM**			
A2.1	Gravity and Fundamental Physics	1 Oct	15:15	TS05 (Betelgeus, Hall 2)
A2.2	Fluid and Materials Sciences	2 Oct	10:15	TS05 (Betelgeus, Hall 2)
A2.3	Microgravity Experiments from Sub-Orbital to Orbital Platforms	2 Oct	15:15	TS05 (Betelgeus, Hall 2)
A2.4	Science Results from Ground Based Research	3 Oct	10:15	TS05 (Betelgeus, Hall 2)
A2.5	Facilities and Operations of Microgravity Experiments	3 Oct	15:15	TS05 (Betelgeus, Hall 2)
A2.6	Microgravity Sciences Onboard the International Space Station and Beyond - Part 1	4 Oct	10:15	TS05 (Betelgeus, Hall 2)
A2.7	Microgravity Sciences Onboard the International Space Station and Beyond - Part 2	4 Oct	15:15	TS05 (Betelgeus, Hall 2)
A3	**SPACE EXPLORATION SYMPOSIUM**			
A3.1	Space Exploration Overview	1 Oct	15:15	Plenary (Sala Europa, Palacongressi)
A3.2A	Moon Exploration – Part 1	2 Oct	10:15	TS15 (Ischia, Palacongressi)
A3.2B	Moon Exploration – Part 2	2 Oct	15:15	TS15 (Ischia, Palacongressi)
A3.2C	Moon Exploration – Part 3	5 Oct	09:00	TS19 (Vega, Palacongressi)
A3.2D	Moon Exploration – Poster session	2 Oct	13:15	Poster Area (Hall 1)
A3.3A	Mars Exploration – Part 1	3 Oct	10:15	TS15 (Ischia, Palacongressi)
A3.3B	Mars Exploration – Part 2	3 Oct	15:15	TS15 (Ischia, Palacongressi)
A3.3C	Mars Exploration – Part 3	5 Oct	14:00	TS15 (Ischia, Palacongressi)
A3.4	Small Bodies Missions and Technologies	4 Oct	10:15	TS15 (Ischia, Palacongressi)
A3.5	Solar System Exploration	4 Oct	15:15	TS15 (Ischia, Palacongressi)
A4	**41st IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps**			
A4.1	SETI 1: SETI Science and Technology	2 Oct	15:15	TS12 (Stromboli, Palacongressi)
A4.2	SETI 2: SETI and Society	3 Oct	10:15	TS18 (Sardegna, Palacongressi)
A5	**IAA HUMAN EXPLORATION OF THE SOLAR SYSTEM SYMPOSIUM**			
A5.1	Near Term Strategies for Lunar Surface Infrastructure	2 Oct	15:15	TS13 (Panarea, Palacongressi)
A5.2	Long Term Scenarios for Human Moon/Mars Presence	3 Oct	15:15	TS13 (Panarea, Palacongressi)
A5.3-B3.6	Joint Session on Human and Robotic Partnerships to Realise Space Exploration Goals	4 Oct	15:15	TS11 (Egadi, Palacongressi)
A5.4	Going Beyond the Earth-Moon System: Human Missions to Mars, Libration Points, and NEO's	5 Oct	09:00	TS13 (Panarea, Palacongressi)
A6	**IAA SPACE DEBRIS SYMPOSIUM**			
A6.1	Measurements	1 Oct	15:15	TS02 (Centauri, Hall 2)
A6.2	Modelling and Risk Analysis	2 Oct	10:15	TS02 (Centauri, Hall 2)
A6.3	Hypervelocity Impacts and Protection	2 Oct	15:15	TS02 (Centauri, Hall 2)
A6.4	Mitigation and Standards	3 Oct	10:15	TS02 (Centauri, Hall 2)

Nr.	Session name	Date	Time	Room
A6.5	Space Debris Removal Issues	3 Oct	15:15	TS02 (Centauri, Hall 2)
A6.6	Political, Economic and Institutional Aspects of Space Debris Mitigation and Removal (Joint with Space Security Committee)	5 Oct	09:00	TS02 (Centauri, Hall 2)
A6.7	Space Debris Removal Concepts	5 Oct	14:00	TS04 (Antares, Hall 2)
B1	**EARTH OBSERVATION SYMPOSIUM**			
B1.1	International Cooperation in Earth Observation Missions	2 Oct	10:15	TS03 (Altair, Hall 2)
B1.2	Future Earth Observation Systems	2 Oct	15:15	TS03 (Altair, Hall 2)
B1.3	Earth Observation Sensors and Technology	3 Oct	10:15	TS03 (Altair, Hall 2)
B1.4	Earth Observation Data Management Systems	3 Oct	15:15	TS03 (Altair, Hall 2)
B1.5	Earth Observation Applications and Economic Benefits	4 Oct	15:15	TS03 (Altair, Hall 2)
B1.6	Dual Use Earth Observation	5 Oct	09:00	TS03 (Altair, Hall 2)
B2	**SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM**			
B2.1	Near-Earth and Interplanetary Communications	1 Oct	15:15	TS13 (Panarea, Palacongressi)
B2.2	Advanced Technologies	2 Oct	10:15	TS13 (Panarea, Palacongressi)
B2.3	Advanced Systems	3 Oct	10:15	TS13 (Panarea, Palacongressi)
B2.4	Fixed and Broadcast Communications	4 Oct	10:15	TS13 (Panarea, Palacongressi)
B2.5	Mobile Satellite Communications and Navigation Technology	4 Oct	15:15	TS13 (Panarea, Palacongressi)
B2.6	Space-Based Navigation Systems and Services	5 Oct	09:00	TS05 (Betelgeus, Hall 2)
B3	**HUMAN SPACE ENDEAVOURS SYMPOSIUM**			
B3.1	Overview Session (Present and Near-Term Human Space Flight Programmes)	1 Oct	15:15	TS11 (Egadi, Palacongressi)
B3.2	How Can We Best Apply Our Experience to Future Human Missions?	2 Oct	10:15	TS11 (Egadi, Palacongressi)
B3.3	ISS Utilisation	3 Oct	10:15	TS11 (Egadi, Palacongressi)
B3.4-B6.5	Sustainable Operation of the ISS - Joint Session of the Human Space Endeavours and Space Operations Symposia	3 Oct	15:15	TS11 (Egadi, Palacongressi)
B3.5	Astronauts: Those Who Make It Happen	4 Oct	10:15	TS11 (Egadi, Palacongressi)
B3.6-A5.3	Joint Session on Human and Robotic Partnerships to Realise Space Exploration Goals	4 Oct	15:15	TS11 (Egadi, Palacongressi)
B3.7	New Technologies, Processes and Operating Modes Enabling Future Human Missions	5 Oct	09:00	TS11 (Egadi, Palacongressi)
B3.8-E7.7	Joint IAF/IISL Session on Policy and Law of Human Space Missions	5 Oct	14:00	TS11 (Egadi, Palacongressi)
B4	**19th IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS**			
B4.1	13th UN/IAA Workshop on Small Satellite Programmes at the Service of Developing Countries	2 Oct	10:15	TS09 (Spica, Hall 3)
B4.2	Small Space Science Missions	1 Oct	15:15	TS09 (Spica, Hall 3)
B4.3	Small Satellite Operations	2 Oct	15:15	TS09 (Spica, Hall 3)
B4.4	Small Earth Observation Missions	3 Oct	10:15	TS09 (Spica, Hall 3)
B4.5	Access to Space for Small Satellite Missions	5 Oct	14:00	TS09 (Spica, Hall 3)
B4.6A	Generic Technologies for Small/Micro Platforms	4 Oct	10:15	TS09 (Spica, Hall 3)
B4.6B	Generic Technologies for Nano/Pico Platforms	4 Oct	15:15	TS09 (Spica, Hall 3)
B4.7A	Space Systems and Architectures Featuring Cross-Platform Compatibility	3 Oct	15:15	TS09 (Spica, Hall 3)
B4.7B	Small Distributed Space Missions	3 Oct	15:15	TS09 (Spica, Hall 3)
B4.8	Hitchhiking to the Moon	5 Oct	09:00	TS09 (Spica, Hall 3)
B5	**SYMPOSIUM ON INTEGRATED APPLICATIONS**			
B5.1	Integrated Applications End-to-End Solutions	4 Oct	10:15	TS03 (Altair, Hall 2)
B5.2	Tools and Technology in support of Integrated Applications	5 Oct	14:00	TS03 (Altair, Hall 2)
B6	**SPACE OPERATIONS SYMPOSIUM**			
B6.1	Human Spaceflight Operations	4 Oct	15:15	TS08 (Rigel, Hall 3)
B6.2	New Operations Concepts and Commercial Space Operations	5 Oct	09:00	TS08 (Rigel, Hall 3)

Nr.	Session name	Date	Time	Room
B6.3	Training Relevant for Operations	2 Oct	10:15	TS08 (Rigel, Hall 3)
B6.4	Flight Control Operations Virtual Forum	1 Oct	15:15	TS19 (Vega, Palacongressi)
B6.5-B3.4	Sustainable Operation of the ISS - Joint Session of the Human Space Endeavours and Space Operations Symposia	3 Oct	15:15	TS11 (Egadi, Palacongressi)
C1	**ASTRODYNAMICS SYMPOSIUM**			
C1.1	Guidance, Navigation and Control (1)	1 Oct	15:15	TS01 (Aldebaran, Hall 1)
C1.2	Guidance, Navigation and Control (2)	2 Oct	10:15	TS01 (Aldebaran, Hall 1)
C1.3	Guidance, Navigation and Control (3)	3 Oct	10:15	TS01 (Aldebaran, Hall 1)
C1.4	Mission Design, Operations and Optimisation (1)	2 Oct	15:15	TS01 (Aldebaran, Hall 1)
C1.5	Mission Design, Operations and Optimisation (2)	3 Oct	15:15	TS01 (Aldebaran, Hall 1)
C1.6	Orbital Dynamics (1)	4 Oct	10:15	TS01 (Aldebaran, Hall 1)
C1.7	Orbital Dynamics (2)	4 Oct	15:15	TS01 (Aldebaran, Hall 1)
C1.8	Attitude Dynamics (1)	5 Oct	09:00	TS01 (Aldebaran, Hall 1)
C1.9	Attitude Dynamics (2)	5 Oct	14:00	TS01 (Aldebaran, Hall 1)
C2	**MATERIALS AND STRUCTURES SYMPOSIUM**			
C2.1	Space Structures 1 - Development and Verification (Space Vehicles and Components)	1 Oct	15:15	TS07 (Regulus, Hall 3)
C2.2	Space Structures 2 - Development and Verification (Deployable and Dimensionally Stable Structures)	2 Oct	10:15	TS07 (Regulus, Hall 3)
C2.3	Space Structures - Dynamics and Microdynamics	2 Oct	15:15	TS07 (Regulus, Hall 3)
C2.4	New Materials and Structural Concepts	3 Oct	10:15	TS07 (Regulus, Hall 3)
C2.5	Smart Materials and Adaptive Structures	3 Oct	15:15	TS07 (Regulus, Hall 3)
C2.6	Space Environmental Effects and Spacecraft Protection	4 Oct	10:15	TS07 (Regulus, Hall 3)
C2.7	Space Vehicles – Mechanical/Thermal/Fluidic Systems	4 Oct	15:15	TS07 (Regulus, Hall 3)
C2.8	Specialised Technologies, Including Nanotechnology	5 Oct	09:00	TS07 (Regulus, Hall 3)
C2.9	Advancements in Materials Applications and Rapid Prototyping	5 Oct	14:00	TS07 (Regulus, Hall 3)
C3	**SPACE POWER SYMPOSIUM**			
C3.1	Space-Based Solar Power Architectures – New Governmental and Commercial Concepts and Ventures	1 Oct	15:15	TS17 (Corsica, Palacongressi)
C3.2	Wireless Power Transmission Technologies, Experiments and Demonstrations	2 Oct	10:15	TS17 (Corsica, Palacongressi)
C3.3	Advanced Space Power Technologies and Concepts	2 Oct	15:15	TS17 (Corsica, Palacongressi)
C3.4	Small and Very Small Advanced Space Power Systems	5 Oct	14:00	TS17 (Corsica, Palacongressi)
C3.5-C4.7	Joint Session on Nuclear Propulsion and Power	5 Oct	09:00	TS14 (Capri, Palacongressi)
C4	**SPACE PROPULSION SYMPOSIUM**			
C4.1	Propulsion System (1)	1 Oct	15:15	TS14 (Capri, Palacongressi)
C4.2	Propulsion System (2)	2 Oct	10:15	TS14 (Capri, Palacongressi)
C4.3	Propulsion Technology	3 Oct	10:15	TS14 (Capri, Palacongressi)
C4.4	Electric Propulsion	3 Oct	15:15	TS14 (Capri, Palacongressi)
C4.5	Hypersonic and Combined Cycle Propulsion	4 Oct	10:15	TS14 (Capri, Palacongressi)
C4.6	New Missions Enabled by New Propulsion Technology and Systems	4 Oct	15:15	TS14 (Capri, Palacongressi)
C4.7-C3.5	Joint Session on Nuclear Propulsion and Power	5 Oct	09:00	TS14 (Capri, Palacongressi)
C4.8	Advanced and Combined Propulsion Systems	5 Oct	14:00	TS14 (Capri, Palacongressi)
C4.9	Propulsion concepts and studies	2 Oct	15:15	TS14 (Capri, Palacongressi)
D1	**SPACE SYSTEMS SYMPOSIUM**			
D1.1	Innovative and Visionary Space Systems Concepts	1 Oct	15:15	TS06 (Canopus, Hall 3)
D1.2	Enabling Technologies for Space Systems	2 Oct	10:15	TS06 (Canopus, Hall 3)
D1.3	System Engineering Tools, Processes and Training (1)	2 Oct	15:15	TS06 (Canopus, Hall 3)
D1.4	Space Systems Architectures	3 Oct	15:15	TS06 (Canopus, Hall 3)

Nr.	Session name	Date	Time	Room
D1.5	Lessons Learned in Space Systems	4 Oct	10:15	TS06 (Canopus, Hall 3)
D1.6	System Engineering Tools, Processes and Training (2)	5 Oct	14:00	TS06 (Canopus, Hall 3)
D2	**SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM**			
D2.1	Launch Vehicles in Service or in Development	1 Oct	15:15	TS16 (Sicilia, Palacongressi)
D2.2	Launch Services, Missions, Operations and Facilities	2 Oct	10:15	TS16 (Sicilia, Palacongressi)
D2.3	Upper Stages, Space Transfer, Entry and Landing Systems	2 Oct	15:15	TS16 (Sicilia, Palacongressi)
D2.4	Future Space Transportation Systems	3 Oct	10:15	TS16 (Sicilia, Palacongressi)
D2.5	Future Space Transportation Systems Technologies	3 Oct	15:15	TS16 (Sicilia, Palacongressi)
D2.6	Future Space Transportation Systems Verification and In-Flight Experimentation	4 Oct	10:15	TS16 (Sicilia, Palacongressi)
D2.7	Small Launchers: Concepts and Operations	4 Oct	15:15	TS16 (Sicilia, Palacongressi)
D2.8	Heavy Lift Launchers Capabilities and New Missions	5 Oct	09:00	TS16 (Sicilia, Palacongressi)
D2.9-D6.2	Joint Session on Private Human Access to Space: Sub-Orbital and Orbital Missions	5 Oct	14:00	TS16 (Sicilia, Palacongressi)
D3	**IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT**			
D3.1	Strategies & Architectures as the Framework for Future Building Blocks in Space Exploration and Development	1 Oct	15:15	TS04 (Antares, Hall 2)
D3.2	Systems and Infrastructures to Implement Future Building Blocks in Space Exploration and Development	3 Oct	10:15	TS04 (Antares, Hall 2)
D3.3	Novel Concepts and Technologies for Enable Future Building Blocks in Space Exploration and Development	3 Oct	15:15	TS04 (Antares, Hall 2)
D3.4	Space Technology and System Management Practices and Tools	5 Oct	09:00	TS04 (Antares, Hall 2)
D4	**10th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FAR FUTURE**			
D4.1	Novel Concepts and Technologies	2 Oct	10:15	TS04 (Antares, Hall 2)
D4.2-E6.4	Joint Session on Global Public/Private Innovative Initiatives in Spaceflight	2 Oct	15:15	TS04 (Antares, Hall 2)
D4.3	Space Elevator Feasibility and Technology	4 Oct	10:15	TS04 (Antares, Hall 2)
D4.4	Contribution of Space Activities to Solving Global Societal Challenges	4 Oct	15:15	TS04 (Antares, Hall 2)
D5	**45th IAA SYMPOSIUM ON SAFETY AND QUALITY IN SPACE ACTIVITIES**			
D5.1	Insuring Quality and Safety in a Cost Constrained Environment: Which Trade-Off?	4 Oct	10:15	TS02 (Centauri, Hall 2)
D5.2	Knowledge Management and Collaboration in Space Activities	4 Oct	15:15	TS02 (Centauri, Hall 2)
D5.3	Space Weather and Effects: Prediction, Analysis and Protection	5 Oct	14:00	TS02 (Centauri, Hall 2)
D6	**SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES**			
D6.1	Commercial Space Flight Safety and Emerging Issues	2 Oct	15:15	TS11 (Egadi, Palacongressi)
D6.2-D2.9	Joint Session on Private Human Access to Space: Sub-Orbital and Orbital Missions	5 Oct	14:00	TS16 (Sicilia, Palacongressi)
E1	**SPACE EDUCATION AND OUTREACH SYMPOSIUM**			
E1.1	Ignition - Primary Space Education	1 Oct	15:15	TS18 (Sardegna, Palacongressi)
E1.2	Lift Off - Secondary Space Education	2 Oct	10:15	TS18 (Sardegna, Palacongressi)
E1.3	On Track - Undergraduate Space Education	3 Oct	15:15	TS18 (Sardegna, Palacongressi)
E1.4	In Orbit - Postgraduate Space Education	2 Oct	15:15	TS18 (Sardegna, Palacongressi)
E1.5	Enabling the Future - Developing the Space Workforce	4 Oct	10:15	TS18 (Sardegna, Palacongressi)
E1.6	Calling Planet Earth - Space Outreach to the General Public	4 Oct	15:15	TS18 (Sardegna, Palacongressi)
E1.7	New Worlds - Innovative Space Education and Outreach	5 Oct	09:00	TS18 (Sardegna, Palacongressi)
E1.8	Space Culture: Innovative Approaches for Public Engagement in Space	1 Oct	15:15	TS18 (Sardegna, Palacongressi)
E1.9	Extended Mission	5 Oct	14:00	TS18 (Sardegna, Palacongressi)
E2	**42nd STUDENT CONFERENCE**			
E2.1	Student Conference – Part 1	1 Oct	15:15	TS03 (Altair, Hall 2)
E2.2	Student Conference – Part 2	2 Oct	10:15	TS19 (Vega, Palacongressi)
E2.3	Student Team Competition	2 Oct	15:15	TS19 (Vega, Palacongressi)
E3	**25th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS**			
E3.1	National and international space policies and programmes for socio-economic development	1 Oct	15:15	TS08 (Rigel, Hall 3)
E3.2	International cooperation: goals, constraints and means	2 Oct	15:15	TS08 (Rigel, Hall 3)
E3.3	Space Economy: Valuing the Uses	3 Oct	10:15	TS08 (Rigel, Hall 3)
E3.4	National policies and regional cooperation	3 Oct	15:15	TS08 (Rigel, Hall 3)
E3.5-E7.6	27th IAA/IISL Scientific-Legal Round Table "Optical Communication"	4 Oct	10:15	TS08 (Rigel, Hall 3)
E4	**46th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM**			
E4.1	Memoirs and Organisational Histories	1 Oct	15:15	TS10 (Sirius, Hall 3)
E4.2	Scientific and Technical Histories	4 Oct	10:15	TS10 (Sirius, Hall 3)
E4.3A	History of Italian Contribution to Astronautics	4 Oct	15:15	TS10 (Sirius, Hall 3)
E4.3B	Tribute to Wernher von Braun, born 100 years ago	4 Oct	15:15	TS10 (Sirius, Hall 3)
E5	**23rd IAA SYMPOSIUM ON SPACE ACTIVITY AND SOCIETY**			
E5.1	Space Technologies - Earth Applications	3 Oct	10:15	TS17 (Corsica, Palacongressi)
E5.2	Moon, Mars and Beyond: Analogues, Habitation and Spin-Offs	3 Oct	15:15	TS17 (Corsica, Palacongressi)
E5.3	Human Habitation Beyond Low Earth Orbit	4 Oct	10:15	TS17 (Corsica, Palacongressi)
E5.4	Space as an Artistic Medium	4 Oct	15:15	TS17 (Corsica, Palacongressi)
E5.5A	Part 1: The Role of Art in Space Activities	5 Oct	09:00	TS17 (Corsica, Palacongressi)
E5.5B	Part 2: Space Assets and Disaster Management	5 Oct	11:00	TS17 (Corsica, Palacongressi)
E6	**BUSINESS INNOVATION SYMPOSIUM**			
E6.1	Entrepreneurship and Investment for Innovations in Commercial Space Access Activities	3 Oct	10:15	TS06 (Canopus, Hall 3)
E6.2	Entrepreneurship and Investment for Commercial in-Space Activities	4 Oct	15:15	TS06 (Canopus, Hall 3)
E6.3	Unique Perspectives of Space Entrepreneurship and Investment	5 Oct	09:00	TS06 (Canopus, Hall 3)
E6.4-D4.2	Joint Session on Global Public/Private Innovative Initiatives in Spaceflight	2 Oct	15:15	TS04 (Antares, Hall 2)
E7	**55th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE**			
E7.1	Nandasiri Jasentuliyana Keynote Lecture on Space Law & 4th Young Scholars Session	2 Oct	10:15	TS10 (Sirius, Hall 3)
E7.2	The Interaction between International Private Law and Space Law and its Impact on Commercial Space Activities	2 Oct	15:15	TS10 (Sirius, Hall 3)
E7.3	The International Legal Regulation of Outer Space within the Scope of Public International Law	3 Oct	10:15	TS10 (Sirius, Hall 3)
E7.4	Legal Evidence from Outer Space	3 Oct	15:15	TS10 (Sirius, Hall 3)
E7.5	Recent Developments in Space Law	5 Oct	09:00	TS10 (Sirius, Hall 3)
E7.6-E3.5	27th IAA/IISL Scientific-Legal Round Table "Optical Communication"	4 Oct	10:15	TS08 (Rigel, Hall 3)
E7.7-B3.8	Joint IAF/IISL Session on Legal Framework for Cooperative Space Endeavours	5 Oct	14:00	TS11 (Egadi, Palacongressi)
E8	**IAA MULTILINGUAL ASTRONAUTICAL TERMINOLOGY SYMPOSIUM**			
E8.1	Multilingual Astronautical Terminology	3 Oct	10:15	TS19 (Vega, Palacongressi)
YPVF	**Young Professionals Virtual Forums**			
YPVF.1	Space Communications and Navigation (SCAN)	3 Oct	15:15	TS19 (Vega, Palacongressi)
YPVF.2	Human Space Endeavours Young Professionals Virtual Forum (HSE)	4 Oct	13:00	TS19 (Vega, Palacongressi)
YPVF.3	Global Earth Observation System of Systems (GEOSS)	4 Oct	15:15	TS19 (Vega, Palacongressi)

9.3 Technical Session Papers ordered by Symposium*

A1. SPACE LIFE SCIENCES SYMPOSIUM

Coordinator: *Ronald J. White, South Dakota School of Mines and Technology, United States; Oleg Orlov, Institute for Biomedical Problems, Russia;*

A1.1. Behaviour, Performance and Psychosocial Issues in Space

October 1 2012, 15:15 — TS12 (Stromboli, Palacongressi)

Chairs: *Nick Kanas, University of California, San Francisco, United States; Gro M. Sandal, University of Bergen, Norway;*
Rapporteur: *Vadim Gushin, Institute for Biomedical Problems, Russia;*

IAC-12.A1.1.1
SYMPOSIUM KEYNOTE: ENDURING THE ISOLATION OF INTERPLANETARY TRAVEL: A PERSONAL ACCOUNT OF THE MARS 500 MISSION
Diego Urbina, European Space Agency (ESA), The Netherlands

IAC-12.A1.1.2
CREW-MC INTERACTION DURING COMMUNICATION DELAY IN MARS-500
Dmitry Shved, Institute for Biomedical Problems of the Russian Academy of Sciences, Russia

IAC-12.A1.1.3
"GROUPTHINK" ON A MISSION TO MARS: RESULTS FROM A 520 DAYS SPACE SIMULATION STUDY
Gro Mjeldheim Sandal, University of Bergen, Norway

IAC-12.A1.1.4
EMOTIONAL AND COGNITIVE ADAPTATION DURING 520 DAYS OF ISOLATION: RESULTS FROM THE LODGEAD MARS500 STUDY
Bernadette van Baarsen, VU medisch centrum, The Netherlands

IAC-12.A1.1.5
BEHAVIORAL AND PSYCHOSOCIAL CHANGES DURING A 520-DAY SIMULATED INTERPLANETARY MISSION TO MARS
Mathias Basner, University of Pennsylvania, United States

IAC-12.A1.1.6
THE MARS-500 CREW IN DAILY LIFE ACTIVITIES: ETHOLOGICAL STUDY
Carole TAFFORIN, Ethospace, France

IAC-12.A1.1.7
CONTENT ANALYSIS OF RUSSIAN SPACE VETERANS: TO THE EXISTENCE OF UNIQUE ASTRONAUT CULTURE
Anna Yusupova, Institute for Biomedical Problems, Russia

IAC-12.A1.1.8
STUDY OF VALUES AND INTERPERSONAL PERCEPTION IN COSMONAUTS ONBOARD OF INTERNATIONAL SPACE STATION
Alla Vinokhodova, Institute for Biomedical Problems of the Russian Academy of Sciences, Russia

IAC-12.A1.1.9
WORKING HOURS, SLEEP, SALIVARY CORTISOL, FATIGUE AND NEURO-BEHAVIOR DURING MARS ANALOG MISSION: ILEWG EUROMOONMARS
Balwant Rai, The Netherlands

IAC-12.A1.1.11
INTERACTIVE EFFECTS OF AUTONOMOUS MISSION MANAGEMENT AND OPERATIONAL STRESSORS ON CREW PERFORMANCE, BEHAVIOR, AND PHYSIOLOGY: INSIGHTS FROM GROUND-BASED EXPERIMENTS
Pete Roma, IBR and Johns Hopkins Univ, United States

IAC-12.A1.1.12
STRESS, SLEEP CIRCADIAN RHYTHMS AND SALIVARY MELATONIN IN SPACE FLIGHT: SIMULATED MARS ANALOGUE ENVIRONMENT
Balwant Rai, The Netherlands

IAC-12.A1.1.13
POSSIBILITIES AND EFFECTS OF SOUNDSCAPE DESIGN
Ayako Ono, Tohoku University Graduate School of Medicine, Japan

IAC-12.A1.1.14
SENSPONSIVE DESIGN AS A TOOL TO ADDRESS HUMAN COMFORT IN HABITABLE SPACECRAFT MODULES.
Konstantinos-Alketas Oungrinis, Technical University of Crete, Greece

IAC-12.A1.1.16
SHARED SITUATION AWARENESS IN COMPLEX AEROSPACE ENVIRONMENTS WITH INCIDENTS OF COMMUNICATIONS TECHNOLOGY DISRUPTION
Kristin Weger, Univeristy of Alabama in Huntsville, United States

IAC-12.A1.1.17
USE OF A FULL MOTION SIMULATOR TO ASSESS OPERATOR PROFICIENCY AFTER LONG-DURATION SPACEFLIGHT
Guan-Lu Zhang, Mount Sinai School of Medicine, United States

IAC-12.A1.1.18
NEUROCOGNITIVE PERFORMANCE DURING MARS500 SIMULATION. IMPLICATIONS FOR TRAINING AND SELECTION PROCESS.
Gabriel G. De la Torre, Universidad de Cádiz, Spain

IAC-12.A1.1.19
DIFFERENCE IN THE PERCEPTION OF SOUND/RHYTHM AND THE EFFECT ON GYMNASTICS PERFORMANCE IN MICROGRAVITY
Irene Lia Schlacht, Technische Universität Berlin, Germany

IAC-12.A1.1.21
EFFECTS OF MICROGRAVITY AND ANXIETY ON SENSORY MODALITIES IN REACTION TIME TASKS DURING PARABOLIC FLIGHT
Jean-Philippe Hainaut, France

IAC-12.A1.1.22
ADAPTATION TO PARABOLIC FLIGHTS: IMPLICATIONS OF PERSONALITY
Aurélie Collado, France

IAC-12.A1.1.23
IMPROVING CREW SUPPORT METHODS IN HUMAN-MACHINE TEAMS FOR LONG-DURATION MISSIONS
Nanja Smets, TNO, The Netherlands

IAC-12.A1.1.24
THE ROLE OF COMMUNICATION FOR PSYCHOLOGICAL CREW SUPPORT DURING HUMAN EXPLORATION MISSION SIMULATION MARS-500
Elena Feichtinger, European Space Agency (ESA), Russia

** As of 28 August 2012*

A1.2. Human Physiology in Space

October 2 2012, 10:15 — TS12 (Stromboli, Palacongressi)

Chairs: *Inessa Kozlovskaya, Institute for Biomedical Problems, Russia; Satoshi Iwase, Aichi Medical University, Japan;*
Rapporteur: *Patrik Sundblad, ESA, The Netherlands;*

IAC-12.A1.2.1
IMPAIRED T-WAVE AMPLITUDE ADAPTATION TO HEART-RATE INDUCED BY CARDIAC DECONDITIONING AFTER 5-DAYS OF HEAD-DOWN BED-REST
Enrico Gianluca Caiani, Politecnico di Milano, Italy

IAC-12.A1.2.2
THE SPECTRAL ANALYSIS OF HEART RATE VARIABILITY IN FORECASTING OF POST-FLIGHT ORTHOSTATIC INTOLERANCE AFTER LONG-TIME SPACE FLIGHTS
Elena Luchitskaya, Institute for Biomedical Problems, Russia

IAC-12.A1.2.3
ASSESSMENT OF SLEEP PATTERNS, ENERGY EXPENDITURE, CIRCADIAN RHYTHMS OF SKIN TEMPERATURE, SALIVARY AMYLASE: MARS SIMULATED MISSION AT MARS DESERT RESEARCH STATION
Balwant Rai, The Netherlands

IAC-12.A1.2.5
PROGRESS OF AGREE PROJECT: MULTILATERAL PROJECT ON THE EFFECTIVENESS OF ARTIFICIAL GRAVITY WITH EXERCISE
Satoshi Iwase, Aichi Medical University, Japan

IAC-12.A1.2.6
CARDIOVASCULAR AND CEREBROVASCULAR RESPONSES TO DIFFERENT POSTURES FOLLOWING 5-DAY HDBR WITH AN ARTIFICIAL GRAVITY COUNTERMEASURE
Katelyn Fraser, University of Waterloo, Canada

IAC-12.A1.2.7
APPLICATIONS OF ELECTRICAL STIMULATION AND ELECTROTACTILE FEEDBACK IN HUMAN SPACEFLIGHT
Jan Walter Schroeder, Astrinova & Bournemouth University, Germany

IAC-12.A1.2.8
HIGH-RESOLUTION PERIPHERAL COMPUTED TOMOGRAPHY IN THE ASSESSMENT OF BONE LOSS AND RECOVERY DURING AND UP TO 2-YEARS AFTER 60D BED-REST
Daniel Belavy, Charité - University Medicine Berlin, Germany

IAC-12.A1.2.9
BONE LOSS ASSESSMENT AND GUIDED THERAPY FOR FRACTURE HEALING USING QUANTITATIVE ULTRASOUND
Yi-Xian Qin, State University of New York, United States

IAC-12.A1.2.10
EFFICACY OF DIFFERENT REGIMENS LOCOMOTOR TRAINING IN PREVENTING THE NEGATIVE EFFECTS OF WEIGHTLESSNESS ON HUMAN PHYSICAL PERFORMANCE
Inessa Kozlovskaya, Institute for Biomedical Problems, Russia

IAC-12.A1.2.11
THE EUROPEAN THESEUS ROADMAP: TOWARDS HUMAN EXPLORATION OF SPACE
Nicolas Walter, European Science Foundation, France

IAC-12.A1.2.12
REVERSIBLE FIGURES: DEVELOPING AN ISS LIFE SCIENCES PAYLOAD
Tahir Merali, Canada

IAC-12.A1.2.14
CHEST MECHANICS AND RESPIRATORY CONTROL DURING 5-DAYS DRY IMMERSION
Julia Popova, RF SRC - Institute of Biomedical Problems of the RAS, Russia

IAC-12.A1.2.15
THE EFFECT OF MENTAL STRESSORS ON THE CARDIOVASCULAR SYSTEM IN VARIOUS GRAVITATIONAL ENVIRONMENTS
Jeffrey R. Osborne, International Space University (ISU), France

IAC-12.A1.2.16
INCOMPLETE RECOVERY OF THE LUMBAR INTERVERTEBRAL DISCS AFTER 60D AND 21D STRICT BED REST
Daniel Belavy, Charité - University Medicine Berlin, Germany

IAC-12.A1.2.17
HYPERTROPHY OF THE NECK MUSCULATURE DUE TO PROLONGED BED-REST?
Daniel Belavy, Charité - University Medicine Berlin, Germany

IAC-12.A1.2.18
THE USE OF BALLISTOCARDIOGRAPHY IN RUSSIAN SPACE FLIGHTS – HISTORY AND PROSPECTS
Irina Funtova, SSC RF-Institute of Biomedical Problems RAS, Russia

IAC-12.A1.2.19
ULTRASOUND IMAGING OF SPINAL CHANGES IN SPACEFLIGHT
Dan Buckland, Massachusetts Institute of Technology (MIT), United States

IAC-12.A1.2.20
SHORT DURATION RESISTIVE EXERCISE SUSTAINS NEUROMUSCULAR FUNCTION AFTER BED REST
Ulf Gast, Charité - University Medicine Berlin, Germany

IAC-12.A1.2.21
CARDIOVASCULAR AUTONOMIC BALANCE IN COSMONAUTS IN ATTITUDE TO THEIR POSITION IN A CREW
Anna Chernikova, SSC RF Institute of bio-medical problems RAS, Russia

IAC-12.A1.2.22
ADAPTATION RISKS IN SPACE MEDICINE
Anna Chernikova, SSC RF Institute of bio-medical problems RAS, Russia

IAC-12.A1.2.23
PRENOSOLOGICAL APPROACH AND HEALTH ASSESSMENT OF CREW-MEMBERS DURING SIMULATED MARS MISSION
Anna Chernikova, SSC RF Institute of bio-medical problems RAS, Russia

IAC-12.A1.2.24
MECHANICAL PROPERTIES OF THE LUMBAR MUSCLES REGARDED TO G-VECTOR.
Alar Veraksitš, University of Tartu, Estonia

A1.3. Medical Care for Humans in Space

October 3 2012, 10:15 — TS12 (Stromboli, Palacongressi)

Chairs: *Anatoly I. Grigoriev, Russian Academy of Sciences, Russia; Jeffrey R. Davis, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States;*
Rapporteur: *Peter Graef, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*

IAC-12.A1.3.1
NEW METHOD FOR THE PREVENTION OF HUMAN DISEASES IN MICROGRAVITY
Gennaro Russo, Associazione Italiana di Aeronautica e Astronautica (AIDAA), Italy

IAC-12.A1.3.2
ENABLING EXPLORATION AND IMPROVING THE QUALITY OF LIFE ON EARTH THROUGH PUBLIC-PRIVATE PARTNERSHIPS
Jeffrey R. Davis, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States

IAC-12.A1.3.3
PROPOSAL OF A NEW COUNTERMEASURE FOR RED MUSCLE ATROPHY IN SPACE AND AGED PEOPLE: A KEY MOLECULAR CHAPERONE ALPHA B-CRYSTALLIN AS A PIVOTAL PLAYER FOR CELLULAR SUSTAINABLE DYNAMICS
Yoriko Atomi, University of Tokyo, Japan

IAC-12.A1.3.4
EFFICACY OF DIFFERENT KINDS OF PHYSICAL EXERCISES IN MAINTENANCE OF PHYSICAL PERFORMANCE UNDER CONDITIONS OF LOW LEVEL MOTOR ACTIVITY
Elena Fomina, FSC RF-IMBP, Russia

IAC-12.A1.3.5
USING LINEAR AND DIFFERENTIAL MATHEMATICAL MODELS TO DEVELOP A COUNTERMEASURE TO SPACEFLIGHT ANEMIA.
Romy Seth, University of Toronto, Canada

IAC-12.A1.3.6
APPROACHES TO THE DEVELOPMENT OF BIOMEDICAL SYSTEMS FOR PILOTED EXPLORATION MISSIONS
Anatoly I. Grigoriev, Russian Academy of Sciences, Russia

IAC-12.A1.3.9
SOME APPROACHES TO INTRAVENOUS FLUID THERAPY IN WEIGHTLESSNESS
Ilya Rukavishnikov, FSC RF-IMBP, Russia

IAC-12.A1.3.11
IMPLICATIONS OF LONG-TERM SPACE MISSIONS FOR ONSET OF GLAUCOMA AND OCULAR TESTING
Farnaz Ghadaki, International Space University (ISU), Canada

IAC-12.A1.3.12
FOOD SUPPLEMENTS FOR COUNTERACTING OXIDATIVE DAMAGE
Mahmoud Saleh, Texas Southern University, United States

IAC-12.A1.3.13
A MAGNETIC RESONANCE IMAGER FOR THE INTERNATIONAL SPACE STATION
Gordon Sarty, University of Saskatchewan, Canada

A1.4. Radiation Fields, Effects and Risks in Human Space Missions

October 3 2012, 15:15 — TS12 (Stromboli, Palacongressi)

Chairs: *Günther Reitz, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany; Giovanni De Angelis, LLC MDA IS, Russia;*
Rapporteur: *Nicole Buckley, Canadian Space Agency, Canada;*

IAC-12.A1.4.1
RADIATION RISK IN HUMAN SPACE MISSIONS: "HOW MUCH" OR "WHEN"?
Marco Durante, Germany

IAC-12.A1.4.2
PROBLEMS OF STUDYING THE EFFECTS OF EXPLORATION MISSIONS FACTORS ON FUNCTIONING OF THE CENTRAL NERVOUS SYSTEM IN MODEL EXPERIMENTS WITH ANIMALS
Igor Ushakov, State Scientific Center of Russian Federation, Institute of Biomedical Problems, Russian Academy of Sciences, Russia

IAC-12.A1.4.3
MEASUREMENTS IN HUMAN PHANTOMS ONBOARD ISS USING THE ESA MATROSHKA FACILITY
Günther Reitz, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A1.4.4
LUNAR RADIATION ENVIRONMENT CHANDRAYAAN-1 RADOM EXPERIMENT DATA: FINAL ANALYSIS
Giovanni De Angelis, LLC MDA IS, Russia

IAC-12.A1.4.5
GROWTH CAPACITY OF HUMAN CELLS AFTER EXPOSURE TO HEAVY IONS IN A PHANTOM HEAD
Christine Hellweg, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A1.4.6
NASA SPACE RADIATION SUMMER SCHOOL FOR RESEARCH
Dudley Goodhead, Medical Research Council, United Kingdom

IAC-12.A1.4.7
RELATIVE DAMAGE TO CELL NUCLEI FROM DELTA RAYS PRODUCED BY HIGH ENERGY IONS
Brad Cox, University of Houston Clear Lake, United States

IAC-12.A1.4.8
HEART MITOCHONDRIAL GENOME MUTATIONS IN CB57BL/6 MOUSE DUE TO 6 GY PROTON RADIATION
Samrawit Yeshitla, Texas Southern University, United States

IAC-12.A1.4.9
EMPIRICAL MODEL FOR CALCULATION OF THE ABSORBED DOSE RATES DURING EVA
Tsvetan Dachev, Space Research and Technology Institute, Bulgarian Academy of Sciences, Bulgaria

IAC-12.A1.4.10
ALTEA-SHIELD: A USLAB-ISS RADIATION SURVEY
Luca Di Fino, University of Rome and INFN "Tor Vergata", Italy

IAC-12.A1.4.11
A NEW METHOD FOR ASSESSMENT OF MUTATION FREQUENCIES INDUCED DURING LONG TERM MANNED SPACE FLIGHT
Renbin Zhao, China Academy of Space Technology (CAST), China

IAC-12.A1.4.12
RESEARCH OF SPACE RADIATION ENVIRONMENT SIMULATION SYSTEM ORIENTED HARDNESS DESIGN FOR CONTROL SYSTEM
Jifeng Ma, National Key Laboratory of Science and Technology on Aerospace Intelligence Control, Beijing Aerospace Automatic Control Institute, China

IAC-12.A1.4.13
RESULTS OF NDOSE AND HIDOSE EXPERIMENT FOR DOSIMETRIC EVALUATION DURING STS-134 MISSION
Mariagabriella Pugliese, Italy

IAC-12.A1.4.14
RESPONSE OF PHASEOLUS VULGARIS L. PLANTS TO LOW-LET IONIZING RADIATION: GROWTH AND OXIDATIVE STRESS
Carmen Arena, University of Naples "Federico II", Italy

IAC-12.A1.4.15
OPTIMIZATION OF MARTIAN REGOLITH AND ULTRA-HIGH MOLECULAR WEIGHT POLYETHYLENE COMPOSITES FOR RADIATION SHIELDING AND HABITAT STRUCTURES
Abhijit Baburaj, NASA, United States

IAC-12.A1.4.16
THE COCORAD BALLOON-BORNE COSMIC RADIATION AND DOSIMETRY MEASUREMENTS IN THE FRAME OF THE BEXUS PROGRAMME
Balazs Zabori, Budapest University of Technology and Economics, Hungary

IAC-12.A1.4.17
RECENT RESULTS FOR SPACE RADIATION ENVIRONMENT IN THE SPHERICAL TISSUE-EQUIVALENT PHANTOM ON THE ISS FROM LIULIN-5 EXPERIMENT
Jordanka Semkova, Space Research and Technologies Institute, Bulgarian Academy of Sciences, Bulgaria

IAC-12.A1.4.18
LOW COST SYSTEM FOR IONIZING RADIATIONS MONITORING IN SPACE
Chiara Massimiani, Politecnico di Milano, Italy

IAC-12.A1.4.19
ANALYSIS OF RADIATION EFFECTS ON ASTRONAUTS FOR A MANNED MISSION TO MARS USING NUCLEAR SPACE PROPULSION
Gurunadh Velidi, University of Petroleum and Energy Studies, India

IAC-12.A1.4.20
RESPONSE OF PHASEOLUS VULGARIS L. PLANTS TO LOW-LET IONIZING RADIATION: LEAF ANATOMY AND CYTOLOGY
Veronica De Micco, University of Naples Federico II, Italy

IAC-12.A1.4.21
MRET ACTIVATED WATER AS DIETARY COUNTERMEASURES TO MITIGATE CANCER RISK FROM SPACE RADIATION.
Igor Smirnov, United States

IAC-12.A1.4.22
MOON RADIATION ENVIRONMENT IN THE VICINITY OF EARTH MAGNETOSPHERE
Rositza Koleva, Bulgaria

A1.5. Astrobiology and Exploration

October 4 2012, 10:15 — TS12 (Stromboli, Palacongressi)

Chairs: *Petra Rettberg, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany; Pascale Ehrenfreund, Space Policy Institute, George Washington University, United States;*
Rapporteur: *Inge ten Kate, SETI Institute, United States;*

IAC-12.A1.5.1
HABITABILITY IN THE SOLAR SYSTEM
Frances Westall, CNRS, France

IAC-12.A1.5.2
CHALLENGES ASSOCIATED WITH THE REMOTE DETECTION OF METHANE AS A PRIMITIVE BIOSIGNATURE
Julia DeMarines, International Space University (ISU), United States

IAC-12.A1.5.3
UNDERWATER EXPLORATION MISSION ON EUROPA JOVIAN MOON
Antonio Sánchez-Torres, Universidad Politécnica de Madrid, Spain

IAC-12.A1.5.4
ROSETTA, HAYABUSA 2, AND THE EMERGENCE OF LIFE
Jean-Pierre Bibring, France

IAC-12.A1.5.5
THE PHOBOS LIFE BIOMODULE: A RUGGED, MULTI-SEALED DESIGN FOR SPACE BIOLOGY EXPERIMENTS
Bruce Betts, The Planetary Society, United States

IAC-12.A1.5.6
ASTROBIOLOGY FIELD RESEARCH IN MARS ANALOGUE ENVIRONMENTS
Bernard Foing, ILEWG, The Netherlands

IAC-12.A1.5.7
FIELD ANALOGUE GEOLOGY AND ASTROBIOLOGY IN SUPPORT OF MARS SCIENCE LABORATORY: CORRELATION OF ORGANICS WITH TOPOGRAPHIC UNITS
Irina Rammos, Free University Amsterdam, The Netherlands

IAC-12.A1.5.8
DNA STABILITY AND INTEGRITY AFTER SPACE FLIGHT AND RE-ENTRY
Cora S. Thiel, University of Zurich, Switzerland

IAC-12.A1.5.9
THE SPACE EXPERIMENTS BOSS AND BIOMEX ON THE EXPOSE R-2 MISSION: FIRST RESULTS ON DESERT CYANOBACTERIA UNDER SPACE AND MARTIAN SIMULATIONS
Daniela Billi, University of Rome "Tor Vergata", Italy

IAC-12.A1.5.10
INVESTIGATION OF CLEANING TECHNOLOGIES AND VALIDATION PROCEDURES APPROPRIATE TO NEEDED CLEANLINESS FOR INSTRUMENTS USED IN THE SEARCH FOR LIFE
John Vrublevskis, Systems Engineering & Assessment Ltd, United Kingdom

IAC-12.A1.5.11
PREPARING FOR THE HUMAN EXPLORATION OF MARS: HEALTH CARE AND PLANETARY PROTECTION REQUIREMENTS AND PRACTICES
John D. Rummel, East Carolina University, United States

IAC-12.A1.5.12
OBSERVING NATURE OF EARTH'S MICROBES ON MARS AND BRINGING BACK THE SPACECRAFT ALONG WITH MARS'S SOIL AND ROCK SAFELY
Vidyasagar Jaju, JNTU, India

IAC-12.A1.5.13
CONTROVERSIAL VIEW ON TERRESTRIAL AND EXTRATERRESTRIAL ORIGINS OF LIFE
BRIJ TEWARI, University of Guyana, Guyana

IAC-12.A1.5.14
NANOTECHNOLOGY: AN ATTEMPT TO EXPLAIN CENTRAL PROBLEM FOR ORIGIN OF LIFE STUDIES BY USING CLAY NANOPARTICLES AND ENZYMES (NANOZYME)
Dale Srinivas, University of Guyana, Guyana

A1.6. Life Support and EVA Systems

October 4 2012, 15:15 — TS12 (Stromboli, Palacongressi)

Chairs: *Chiaki Mukai, Japan Aerospace Exploration Agency (JAXA), Japan; Bernhard Koch, DLR Institute of Aerospace Medicine, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*
Rapporteur: *Terrence G. Reese, National Aeronautics and Space Administration (NASA), United States;*

IAC-12.A1.6.1
CARBON DIOXIDE AND WATER REMOVAL SYSTEM IMPROVEMENTS FOR SPACE STATION; AN EVALUATION OF CURRENT AND CANDIDATE SORBENTS
Emily Mattox, University of Alabama in Huntsville, United States

IAC-12.A1.6.2
WATER RECOVERY SYSTEMS BASED ON PHYSICAL/CHEMICAL PROCESSES INTENDED FOR SPACE STATIONS
Leonid Bobe, NIICHIMMASH, Russia

IAC-12.A1.6.3
HYDROPONIC CULTIVATION OF SOYBEAN FOR BIOREGENERATIVE LIFE SUPPORT SYSTEMS (BLSSS): THE EFFECT OF NITROGEN SOURCE AND BACTERIAL ROOT SYMBIOSIS
Veronica De Micco, University of Naples Federico II, Italy

IAC-12.A1.6.4
CULTIVATING CHLORELLA VULGARIS FOR NUTRITION AND OXYGEN PRODUCTION DURING LONG TERM MANNED SPACE MISSIONS
Melanie Buchert, University of Stuttgart, Germany

IAC-12.A1.6.6
USING INERTIAL MEASUREMENT UNITS FOR MEASURING SPACESUIT MOBILITY AND WORK ENVELOPE CAPABILITY FOR INTRAVEHICULAR AND EXTRAVEHICULAR ACTIVITIES
Ryan Kobrick, Massachusetts Institute of Technology (MIT), United States

IAC-12.A1.6.7
THE DEVELOPMENT OF A HIGH MOBILITY SPACE SUIT HELMET FOR PLANETARY EXPLORATION
Forrest Meyen, Massachusetts Institute of Technology (MIT), United States

IAC-12.A1.6.8
DEVELOPMENT OF A COMPREHENSIVE ASTRONAUT SPACESUIT INJURY DATABASE
Ana Diaz, Massachusetts Institute of Technology (MIT), United States

IAC-12.A1.6.9
INTERACTION ANALYSIS IN THE MAN-IRLSS SYSTEM UNDER MARS-500 PROJECT ON BASE OF VIRTUAL SIMULATORS
Eduard Kurmazenko, NIICHIMMASH, Russia

IAC-12.A1.6.10
THE MARS 500 EXPERIMENT MICHA: BIOBURDEN AND BIODIVERSITY IN A CONFINED HABITAT
Petra Rettberg, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A1.6.11
TECHNICAL PROBLEMS OF MICROBIOLOGICAL PROTECTION FOR AN ORBITAL SPACE STATION
Paul Fomkin, Moscow Aviation Institute (State Technical University), Russia

IAC-12.A1.6.12
ENVIHAB – THE NEW MODULARLY DESIGNED RESEARCH FACILITY FOR MEDICAL RESEARCH AT DLR, COLOGNE, GERMANY
Bernhard Koch, DLR Institute of Aerospace Medicine, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A1.6.13
HEAT-AND-MASS TRANSFER DURING EVAPORATION AND CONDENSATION IN THE ROTARY DISTILLER OF A SYSTEM FOR WATER RECLAMATION FROM URINE FOR SPACE STATIONS.
Dmitry Arakcheev, Russia

IAC-12.A1.6.14
MATHEMATICAL METHODS IN THE SPHERE OF MICROBIOLOGICAL SAFETY
Paul Fomkin, Moscow Aviation Institute (State Technical University), Russia

IAC-12.A1.6.16
ON THE DEVELOPMENT OF A FORWARD OSMOSIS/BIO-ELECTROCHEMICAL SYSTEM FOR ENERGY RECOVERY AND WATER RCLAMATION.
Eduardo Nicolau, University of Puerto Rico, Puerto Rico

IAC-12.A1.6.18
CLAYSN: A NEW REAGENT FOR THE SYNTHESIS OF PREBIOTIC RNA OLIGOMERS
Dale Srinivas, University of Guyana, Guyana

IAC-12.A1.6.19
VIABLE: A CURRENT FLIGHT EXPERIMENT ON ISS TO INVESTIGATE BIOCONTAMINATION AND HUMAN LIFE SUPPORT IN SPACE
Francesco Canganella, University of Tuscia, Italy

IAC-12.A1.6.20
FACILITY OF LABORATORIES FOR SUSTAINABLE HABITATION - AN INITIAL DESIGN OF A CLOSED-LOOP ENVIRONMENT
Dominik Quantius, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

A1.7. Biology in Space

October 5 2012, 09:00 — TS12 (Stromboli, Palacongressi)

Chairs: *Catharine Conley, National Aeronautics and Space Administration (NASA), United States; Marlene Grenon, University of California, San Francisco, United States;*
Rapporteur: *Fengyuan Zhuang, Beihang University, China;*

IAC-12.A1.7.1
MICE DRAWER SYSTEM (MDS): OUTCOMES FOR FIRST MISSION AND SCENARIOS FOR A SECOND MISSION TO THE INTERNATIONAL SPACE STATION
Salvatore Pignataro, Italian Space Agency (ASI), Italy

IAC-12.A1.7.2
LONG-DURATION SPACE FLIGHT PROMOTES GALECTIN-3 EXPRESSION IN THYROID GLAND
Francesco Saverio Ambesi-Impiombato, University of Udine, Italy

IAC-12.A1.7.3
MICROGRAVITY ALTERS MATRIX-INTEGRIN–KINASE SIGNALING CASCADES RESULTING IN ARREST OF THE CELL CYCLE IN BONE OSTEOPROGENITOR CELLS
Elizabeth Blaber, University of New South Wales/NASA Ames research Center, Australia

IAC-12.A1.7.4
NOVEL OSTEOCYTIC CELL LINES TO STUDY RANKL AND SOST FOR A INTERNATIONAL SPACE STATION (ISS) FLIGHT EXPERIMENT
Jordan Spatz, Massachusetts Institute of Technology (MIT), United States

IAC-12.A1.7.5
FUNCTION AND SIGNAL TRANSDUCTION IN CELLS OF THE INNATE IMMUNE SYSTEM IN MICROGRAVITY – RESULTS FROM COORDINATED SPACE AND PARABOLIC FLIGHT EXPERIMENTS
Oliver Ullrich, University of Zurich, Switzerland

IAC-12.A1.7.7
STUDY OF GLIOBLASTOMA CANCER CELLS BEHAVIOUR INSIDE SPACE SHUTTLE
Chantal Cappelletti, Scuola di Ingegneria Aerospaziale, Italy

IAC-12.A1.7.8
MEK - MULTIVARIABLES DEVICE DEVELOPMENT FOR ENZYMES KINETICS EXPERIMENT IN MICROGRAVITY
Alessandro La Neve, Centro Universitário da FEI, Brazil

IAC-12.A1.7.9
REVERSIBLE CHANGES IN HUMAN BONE MARROW MMSC GENE EXPRESSION UNDER SIMULATED MICROGRAVITY
Ludmila Buravkova, Institute for Biomedical Problems, Russia

IAC-12.A1.7.10
EFFECTS OF SIMULATED MICROGRAVITY AND ARTIFICIAL GRAVITY ON ENDOTHELIAL CELLS: CHANGES IN INFLAMMATION AND ADHESION MOLECULE EXPRESSION
Marlene Grenon, University of California, San Francisco, United States

IAC-12.A1.7.11
HYPERGRAVITY EFFECTS ON PROLIFERATION AND DIFFERENTIATION OF PC12 NEURON-LIKE CELLS
Giada Genchi, Scuola Superiore Sant'Anna, Italy

IAC-12.A1.7.12
EFFECTS OF SIMULATED MICROGRAVITY ON CELL CYCLE IN HUMAN ENDOTHELIAL CELLS
Alisa Sokolovskaya, Research Institute of General Pathology and Pathophysiology / Russian Academy of Medical Sciences, Russia

IAC-12.A1.7.13
COMMERCIAL ACCESS TO A NEW GRAVITATIONAL BIOLOGY FACILITY ONBOARD ISS
Ulrich Kuebler, Astrium GmbH, Germany

A1.8. Multidisciplinary Space Life Sciences Research

October 5 2012, 14:00 — TS12 (Stromboli, Palacongressi)

Chairs: *Rupert Gerzer, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany; Melchor Antunano, U.S. Federal Aviation Administration (FAA), United States;*
Rapporteur: *Volker Damann, Space Applications Services N.V., Germany;*

IAC-12.A1.8.1
THE EFFECT OF MICROGRAVITY ON DROSOPHILA FEEDING AND ENERGY METABOLISM
Renbin Zhao, China Academy of Space Technology (CAST), China

IAC-12.A1.8.2
DEXTEROUS MANIPULATION IN MICROGRAVITY: EXPERIMENTS DURING AIRCRAFT PARABOLIC FLIGHTS TO PREPARE FOR THE INTERNATIONAL SPACE STATION
Vladimir Pletser, European Space Agency (ESA), The Netherlands

IAC-12.A1.8.3
EVIDENCE OF MOTOR STEREOTYPE DESTRUCTION UNDER MICROGRAVITY CONDITIONS
Elena Tomilovskaya, Institute for Biomedical Problems, Russia

IAC-12.A1.8.4
CHANGES IN INTRACRANIAL PRESSURE AND OPTIC NERVE SHEATH DIAMETER WITH INCREASING CEPHALAD FLUID SHIFTS IN A PORCINE MODEL
Derek Nusbaum, United States

IAC-12.A1.8.5
ULTRA LONG-TERM SODIUM BALANCE STUDIES DURING THE MARS500 CAMPAIGN
Kathrin Jüttner, Germany

IAC-12.A1.8.6
WOMEN'S HEALTH IN SPACEFLIGHT
Laura Drudi, McGill University, Canada

IAC-12.A1.8.7
AN ITALIAN CENTER FOR TRANSFERRING HEALTH METHODOLOGIES FROM SPACE TO GROUND
Mario Benassai, Altec S.p.A., Italy

IAC-12.A1.8.9
IN VITRO AND IN VIVO PRO-INFLAMMATORY ACTIVITIES OF LUNAR AND MARTIAN DUST SIMULANTS JSC-1 AND JSC-M-1.
David Gonçalves, INRS-Institut Armand Frappier, Canada

IAC-12.A1.8.10
MICROBIAL ECOLOGY OF SPACE CONFINED HABITATS AND BIOFILM DEVELOPMENT ON SPACE MATERIALS: THE PROJECT MARS500 - MICHA
Francesco Canganella, University of Tuscia, Italy

IAC-12.A1.8.12
MICROGRAVITY EFFECTS ON BRAIN
Govindarajan Ramesh, Norfolk State University, United States

IAC-12.A1.8.13
FINAL RESULTS OF THE MOP EXPERIMENT: VESTIBULAR ADAPTATION TO HYPO- AND HYPERGRAVITY
Eric Groen, TNO, The Netherlands

IAC-12.A1.8.14
REVIEW AND PERSPECTIVES OF PLANT CULTIVATION FACILITIES AND TECHNOLOGIES FOR SPACE EXPLORATION
Cesare Lobascio, Thales Alenia Space Italia, Italy

IAC-12.A1.8.15
IONIC LIQUID FEEP: RECENT EXPERIMENTAL RESULTS
Salvo Marcuccio, Alta SpA, Italy

A2. MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM

Coordinator: *Antonio Viviani, Seconda Universita' di Napoli, Italy;*
Vice-Coordinator: *Marcus Dejmek, Canadian Space Agency, Canada;*

A2.1. Gravity and Fundamental Physics

October 1 2012, 15:15 — TS05 (Betelgeus, Hall 2)

Chairs: *Francois Gonzalez, Centre National d'Etudes Spatiales (CNES), France; Joachim Richter, RWTH Aachen, Germany;*
Rapporteur: *Qi KANG, National Microgravity Laboratory, Institute of Mechanics, Chinese Academy of Sciences., China;*

IAC-12.A2.1.1
THE MICROSCOPE SPACE MISSION: FROM FLIGHT HARDWARE TO IN-ORBIT CALIBRATION
Agnes Levy, ONERA, France

IAC-12.A2.1.2
MODELING AND SIMULATION OF THE MICROSCOPE MISSION
Meike List, ZARM - University of Bremen, Germany

IAC-12.A2.1.3
CLOCKS ON GOUND AND IN SPACE FOR GEODESY
Claus Laemmerzahl, ZARM - University of Bremen, Germany

IAC-12.A2.1.4
PHARAO'S CESIUM TUBE
Arnaud Colmon, EADS Sodern, France

IAC-12.A2.1.5
AN ULTRA-STABLE FREQUENCY REFERENCE FOR SPACE APPLICATIONS BASED ON MOLECULAR IODINE
Thilo Schuldt, University of Applied Sciences Konstanz, Germany

IAC-12.A2.1.6
STE-QUEST: A SPACE-BASED EQUIVALENCE PRINCIPLE TEST USING ATOM INTERFEROMETRY
Thilo Schuldt, University of Applied Sciences Konstanz, Germany

IAC-12.A2.1.7
ATOMIC MATTER WAVES FOR TESTING THE WEAK EQUIVALENCE PRINCIPLE IN MICROGRAVITY
Sven Herrmann, ZARM - University of Bremen, Germany

IAC-12.A2.1.8
HIGH-PRECISION MEASUREMENTS WITH MATTER WAVE INTERFEROMETRY IN MICROGRAVITY - SCIENCE AND TECHNOLOGY
Markus Krutzik, Humboldt University of Berlin, Germany

IAC-12.A2.1.9
QUANTUS I - ATOM INTERFEROMETRY IN THE BREMEN DROP TOWER
Hauke Müntinga, ZARM - University of Bremen, Germany

IAC-12.A2.1.10
MAIUS - A ROCKET-BORNE TEST OF AN ATOM INTERFEROMETER WITH A CHIP-BASED ATOM LASER
Stephan Seidel, Leibniz Universiät Hannover, Germany

IAC-12.A2.1.12
EXPERIMENTAL OBSERVATIONS OF WAVE AND HYDRODYNAMIC PHENOMENA IN DUSTY PLASMA UNDER MICROGRAVITY CONDITIONS.
Alexander Usachev, Joint Institute for High Temperatures of the Russian Academy of Sciences, Russia

IAC-12.A2.1.13
SPACE-TIME EXPLORER AND QUANTUM EQUIVALENCE PRINCIPLE SPACE TEST (STE-QUEST)
Naceur Gaaloul, Institute of Quantum Optics, Germany

IAC-12.A2.1.14
MISSION SIMULATION OF THE ASTROD-GW FORMATION
An-Ming Wu, National Space Organization, Taiwan, China

IAC-12.A2.1.15
LONG RANGE BOUNDARY EFFECT IN THE GRANULAR GAS IN MICRO-GRAVITY FOR EVENT-DRIVEN SIMULATION
Yanpei Chen, China

IAC-12.A2.1.16
ABOUT THE FIFTH TYPE OF FUNDAMENTAL INTERACTIONS
Igor Gurevich, The Institute of Informatics Problems of the Russian Academy of Sciences, Hetnet Consulting Corp., Russia

A2.2. Fluid and Materials Sciences

October 2 2012, 10:15 — TS05 (Betelgeus, Hall 2)

Chairs: Raimondo Fortezza, Telespazio, Italy; Nickolay N. Smirnov, Moscow Lomonosov State University, Russia; Rapporteur: Jean-Claude Legros, Université Libre de Bruxelles, Belgium;

IAC-12.A2.2.1
THE CRITICAL MARANGONI NUMBER DEPENDENCE WITH LIQUID BRIDGE DIAMTER IN HIGH PRANDTL FLUIDS
Shinichi Yoda, ISAS/JAXA, Japan

IAC-12.A2.2.2
ATV EXPERIMENTS ON SPACECRAFT FIRE SAFETY
David Urban, NASA Glenn Research Center, United States

IAC-12.A2.2.3
MICROGRAVITY FLAMMABILITY EXPERIMENTS FOR SPACECRAFT FIRE SAFETY
Grunde Jomaas, Technical University of Denmark, Denmark

IAC-12.A2.2.4
IGNITION AND COMBUSTION OF MULTI-PHASE FUEL-OXIDANT MIXTURES IN ROCKET ENGINES
Nickolay N. Smirnov, Moscow Lomonosov State University, Russia

IAC-12.A2.2.5
CONVECTION OF LIQUID WITH INTERNAL HEAT RELEASE IN A ROTATING CONTAINER
Victor Kozlov, Russia

IAC-12.A2.2.6
CONVECTIVE OSCILLATORY FLOWS IN TWO-LAYER SYSTEMS UNDER THE ACTION OF AN INCLINED TEMPERATURE GRADIENT
Antonio Viviani, Seconda Universita' di Napoli, Italy

IAC-12.A2.2.7
CONFINED AND UNCONFINED NUCLEATE BOILING UNDER TERRESTRIAL AND MICROGRAVITY CONDITIONS
Reinaldo Rodrigues de Souza, Universidade Federal de Santa Catarina UFSC, Brazil

IAC-12.A2.2.8
ON THE MEASUREMENTS OF HIGH TEMPERATURE BINARY INTERDIFFUSION COEFFICIENTS UNDER THE ACTION OF NON-INERTIAL ISS ACCELERATIONS
Salvatore Cito, University "Rovira i Virgili", Spain

IAC-12.A2.2.9
SURFACE ROUGHNESS EFFECTS ON MICROGRAVITY BOILING
Eric Becnel, University of Alabama in Huntsville, United States

IAC-12.A2.2.10
THE THERMOLAB PROJECT - THERMOPHYSICAL PROPERTY MEASUREMENTS IN AN ELECTROMAGNETIC LEVITATION DEVICE UNDER REDUCED GRAVITY CONDITIONS
Rainer WUNDERLICH, Germany

IAC-12.A2.2.11
STEEL BALL IMPACT ON THE GRANULAR BED IN MICROGRAVITY
Yuren Wang, National Microgravity Laboratory, Institute of Mechanics, Chinese Academy of Sciences., China

IAC-12.A2.2.12
NON-LINEAR FLOW FIELDS AND THEIR TRANSITION PROCESS IN HANGING DROPLET DUE TO THERMOCAPILLARY EFFECT
Takumi Watanabe, Tokyo University of Science, Japan

IAC-12.A2.2.13
PULSE DETONATION THRUSTERS FOR SPACE APPLICATIONS
Nickolay N. Smirnov, Moscow Lomonosov State University, Russia

IAC-12.A2.2.14
NUMERICAL MODELING OF MULTIPHASE STOKES FLOWS IN MICROGRAVITY CONDITIONS
Dmytro Yevdokymov, Dnipropetrovsk National University named after Oles Gonchar, Ukraine

IAC-12.A2.2.16
A NUMERICAL STUDY ON EFFECTS OF ENVIRONMENTAL VARIABLES ON CONCURRENT FLOW FLAME SPREAD RATE
Ranjit Shukla, IIT Madras, India

IAC-12.A2.2.18
NUMERICAL STUDY ON OPPOSED FLOW FLAME SPREAD OVER PARALLEL THIN FUEL SHEETS IN MICROGRAVITY ENVIRONMENT
Vinayak Malhotra, Indian Institute of Technology, India

IAC-12.A2.2.19
WAVE INSTABILITY OF A ROTATING LIQUID COLUMN
Nikolay Kozlov, PSPU, Russia

IAC-12.A2.2.20
PENDULUM THERMAL VIBRATIONAL CONVECTION IN A VERTICAL ANNULUS OF FINITE HEIGHT
Victor Kozlov, Russia

IAC-12.A2.2.21
PARABOLIC FLIGHT MEASUREMENTS OF NANOFLUID THERMAL CONDUCTIVITY BY A TRANSIENT OPTICAL TECHNIQUE
Quentin Galand, Université Libre de Bruxelles, Belgium

A2.3. Microgravity Experiments from Sub-Orbital to Orbital Platforms

October 2 2012, 15:15 — TS05 (Betelgeus, Hall 2)

***Chairs:** Ziad Saghir, Ryerson University, Canada; Raffaele Savino, University of Naples "Federico II", Italy;*
***Rapporteur:** Vladimir Pletser, European Space Agency (ESA), The Netherlands;*

IAC-12.A2.3.1
EXPERIMENTAL STUDIES ON THE WITHDRAWAL OF BUBBLE-FREE PROPELLANT BY USING PROPELLANT MANAGEMENT DEVICES (PMDS) UNDER COMPENSATED GRAVITY
Kay Burow, ZARM - University of Bremen, Germany

IAC-12.A2.3.2
DIMENSIONAL SCALING OF QUENCHING FOR FLAME PROPAGATION IN RANDOM MEDIA
Caroline Wagner, McGill University, Canada

IAC-12.A2.3.4
A BRIEF BUT POIGNANT FLIGHT IN SPACE: THE MASER-12 SOUNDING ROCKET
Antonio Verga, ESA, The Netherlands

IAC-12.A2.3.5
AN OBSERVATION OF DIFFUSION PROCESS IN MICROGRAVITY BY MACH-ZEHNDER INTERFEROMETER
Li DUAN, National Microgravity Laboratory, Institute of Mechanics, Chinese Academy of Sciences., China

IAC-12.A2.3.6
PRELIMINARY RESULTS OF MASER12-XRMON EXPERIMENT ON SOUNDING ROCKET DEVOTED TO THE X-RAY RADIOGRAPHIC OBSERVATION OF GROWTH PROCESS UNDER MICROGRAVITY
Henri Nguyen-Thi, Aix-Marseille Université & CNRS, France

IAC-12.A2.3.7
SOME EXPERIMENTAL PROGRESSES IN THE STUDY OF SELF-REWETING FLUIDS FOR THE SELENE EXPERIMENT TO BE CARRIED IN THE THERMAL PLATFORM 1 HARDWARE
Raffaele Savino, University of Naples "Federico II", Italy

IAC-12.A2.3.8
A SYSTEMATIC MICROGRAVITY TESTING APPROACH TO ADVANCE THE TECHNOLOGY READINESS LEVEL OF ON-ORBIT PROPELLANT DEPOTS
Nathan Silvernail, Embry Riddle Aeronautical University, United States

IAC-12.A2.3.9
CLOUD MANIPULATION SYSTEM: THERMAL CHARACTERIZATION AND DROP TOWER EXPERIMENT
Anselmo Cecere, Université Libre de Bruxelles, Belgium

IAC-12.A2.3.10
REACTION CONTROL OF MULTIDEGREES OF FREEDOM SPACE MANIPULATORS: THEORY AND SIMULATED MICROGRAVITY TESTS
Stefano Zampierin, Università degli Studi di Padova, Italy

IAC-12.A2.3.12
MIXING OF LIQUIDS BY VIBRATIONS - PREPARATION OF THE VIPIL EXPERIMENT ON THE ISS
Valentina Shevtsova, Université Libre de Bruxelles, Belgium

IAC-12.A2.3.13
MICROGRAVITY TESTING OF UAHUNTSVILLE'S CHARGERSAT-1
Justin Riegel, Univeristy of Alabama in Huntsville, United States

IAC-12.A2.3.14
MAIUS - A ROCKET-BORNE TEST OF AN ATOM INTERFEROMETER WITH A CHIP-BASED ATOM LASER
Stephan Seidel, Leibniz Universiät Hannover, Germany

IAC-12.A2.3.15
RESULTS OF REXUS12'S SUAINEADH EXPERIMENT: DEPLOYMENT OF A SPINNING SPACE WEB IN MICRO GRAVITY CONDITIONS
Thomas Sinn, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.A2.3.16
MICROGRAVITY EFFECTS ON THE ELECTROCHEMICAL OXIDATION OF AMMONIA: A PARABOLIC FLIGHT EXPERIMENT
Carlos Poventud-Estrada, NASA Harriet Jenkins Pre-Doctoral Fellowship, University of Puerto Rico, Puerto Rico

A2.4. Science Results from Ground Based Research

October 3 2012, 10:15 — TS05 (Betelgeus, Hall 2)

***Chairs:** Valentina Shevtsova, Université Libre de Bruxelles, Belgium; Antonio Viviani, Seconda Universita' di Napoli, Italy;*
***Rapporteur:** Nickolay N. Smirnov, Moscow Lomonosov State University, Russia;*

IAC-12.A2.4.1
EFFECT OF HUMIDITY ON THE EVAPORATION OF SESSILE DROPLETS
Aaron Persad, University of Toronto, Canada

IAC-12.A2.4.2
STEPS TOWARDS THE DEVELOPMENT OF A PAYLOAD DEDICATED TO THE STUDY OF THE EVAPORATION OF A SESSILE DROP
Gabriel Pont, Centre National d'Etudes Spatiales (CNES), France

IAC-12.A2.4.3
GLOBE: THE INNOVATIVE FORCE FIELD FOLLOWER FACILITY FOR SPACE EXPERIMENTS
Fabio Peluso, Telespazio S.p.A., Italy

IAC-12.A2.4.4
SURFACTANT TRANSPORT INTO THE DROP UNDER CONDITIONS OF WEAK GRAVITATIONAL CONVECTION
Antonio Viviani, Seconda Universita' di Napoli, Italy

IAC-12.A2.4.5
DIFFUSION AND SORET IN TERNARY MIXTURES – PREPARATION OF DCMIX2 EXPERIMENT ON THE ISS.
Valentina Shevtsova, Université Libre de Bruxelles, Belgium

IAC-12.A2.4.6
EXPERIMENTAL MEASUREMENT OF THERMODIFFUSION COEFFICIENTS
MD ABDUR RAHMAN, Ryerson University, Canada

IAC-12.A2.4.7
THERMOCAPILLARY CONVECTION IN FREE LIQUID FILM - EFFECT OF LIQUID-FILM VOLUME RATIO ON FLOW PATTERNS
Koichi Ikebukuro, Tokyo University of Science, Japan

IAC-12.A2.4.8
THE WAVENUMBERS SELECTION OF SUPERCRITICAL MARANGONI-BENARD CONVECTION
Qi KANG, National Microgravity Laboratory, Institute of Mechanics, Chinese Academy of Sciences., China

IAC-12.A2.4.9
INSTABILITY STUDY ON SURFACE-TENSION-DRIVEN BENARD-MARANGONI CONVECTION IN ONE LIQUID LAYER
Pu Zhang, National Microgravity Laboratory, Institute of Mechanics, Chinese Academy of Sciences., China

IAC-12.A2.4.10
EXPERIMENTS ON THERMOCAPILLARY INSTABILITIES IN LIQUID BRIDGE WITH A VOLATILE LIQUID.
Viktar Yasnou, University of Brussels, Belgium

IAC-12.A2.4.11
CORRELATION BETWEEN PARTICLE ACCUMULATION STRUCTURE (PAS) AND HYDROTHERMAL WAVE BY THERMOCAPILLARY-DRIVEN FLOW IN HALF-ZONE LIQUID BRIDGE
Tomoaki Sano, Tokyo University of Science, Japan

IAC-12.A2.4.12
THE BEHAVIOR OF MICROGRAVITY SPREADING FLAMES IN NARROW SPACES
Shuang-Feng Wang, Institute of Mechanics, Chinese Academy of Sciences, China

A2.5. Facilities and Operations of Microgravity Experiments

October 3 2012, 15:15 — TS05 (Betelgeus, Hall 2)

***Chairs:** Marcus Dejmek, Canadian Space Agency, Canada; Rainer Willnecker, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*
***Rapporteur:** Peter Hofmann, Kayser-Threde GmbH, Germany;*

IAC-12.A2.5.1
GEOFLOW-2: RESULTS AND EXPERIENCES FROM A LONG TERM MISSION ON THE ISS
José Miguel Ezquerro Navarro, E-USOC, Universidad Politécnica de Madrid, Spain

IAC-12.A2.5.2
COMPREHENSIVE EVALUATION ON ISS CREW WORKING/SLEEPING MICROGRAVITY ENVIRONMENT DURING MARANGONI EXPERIMENT IN KIBO
Keiichiro Sakagami, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A2.5.4
BIAS DETERMINATION FOR THE MICROSCOPE ACCELEROMETERS USING THE ZARM CATAPULT SYSTEM - EXPERIMENTAL SETUP AND DATA ANALYSIS
Hanns Selig, ZARM - University of Bremen, Germany

IAC-12.A2.5.5
FIRST THERMAL AND MECHANICAL DESIGN APPROACH OF THE QUANTUS-III EXPERIMENT
Jens Grosse, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A2.5.6
INNOVATIVE VIDEO DIAGNOSTIC EQUIPMENT FOR MATERIAL AND FLUID SCIENCE EXPERIMENTS IN SPACE
Francesco Maria Monti, TECHNO SYSTEM DEV., Italy

IAC-12.A2.5.7
RESULTS AND EXPERIENCES FROM THE SODI-COLLOID EXPERIMENT ON THE ISS
Jose Javier Fernandez Fraile, E-USOC, Universidad Politécnica de Madrid, Spain

IAC-12.A2.5.8
TOWARDS A NEXT-GENERATION DROP TOWER SYSTEM - THE NOVEL RAPID DROP TOWER BREMEN BY ZARM
Thorben Könemann, ZARM Fab GmbH, Germany

IAC-12.A2.5.9
THE SODI DIFFUSION SORET COEFFICIENT EXPERIMENT ONBOARD ISS: A FLEXIBLE AND MODULAR APPROACH TO OPERATIONS IN ORBIT
Chiara Piccolo, Telespazio SSA PSC/MARS Center, Italy

IAC-12.A2.5.10
DESIGN OF MICROGRAVITY EXPERIMENTS AND RESEARCH USING ILAB
Etim Offiong, African Regional Center for Space Science and Technology Education in English (ARCSSTE-E), Nigeria

IAC-12.A2.5.11
THE UNITED NATIONS HUMAN SPACE TECHNOLOGY INITIATIVE (HSTI) SCIENCE ACTIVITIES
Aimin NIU, The United Nations Office for Outer Space Affairs, Austria

IAC-12.A2.5.12
ALPHASPARKS SPACE TRANSPORTATION
Peter Houtzagers, AlphaSparks Space Transportation B.V., The Netherlands

IAC-12.A2.5.13
TIME-OPTIMAL CONTROL OF RATE CONTROL SYSTEM WITH DYNAMICS PARAMETERS UNCERTAINTIES AND COMMAND DELAY
Adilson Teixeira, IAE - Institute for Aeronautics and Space, Brazil

IAC-12.A2.5.14
AQUATIC HABITAT (AQH), THE AQUATIC ANIMAL EXPERIMENT FACILITY IN SPACE ENVIRONMENT
Tatsuya Sato, Mitsubishi Heavy Industries, Ltd., Japan

A2.6. Microgravity Sciences Onboard the International Space Station and Beyond - Part 1

October 4 2012, 10:15 — TS05 (Betelgeus, Hall 2)

Chairs: *Jules Kenol, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States; Bernard Zappoli, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Christoph Pütz, Astrium Space Transportation, Germany;*

IAC-12.A2.6.1
COMPARATIVE ISS ACCELEROMETRIC ANALYSES
Nuria Saez Jauset, University "Rovira i Virgili", Spain

IAC-12.A2.6.2
COMPUTATIONAL EVALUATION OF THE CURRENT THERMODIFFUSION EXPERIMENTS ONBOARD ISS
Seshasai Srinivasan, Ryerson University, Canada

IAC-12.A2.6.3
EXPERIMENTAL AND NUMERICAL STUDY OF THERMAL DIFFUSION IN THE PRESENCE OF CONTROLLED VIBRATIONS USING TWO EQUATION OF STATES
Aram Parsa, Ryerson University, Canada

IAC-12.A2.6.4
IVIDIL: DIFFUSION PHENOMENA UNDER CONTROL OF VIBRATIONS
Vitaliy Sechenyh, Microgravity Research Center, Belgium

IAC-12.A2.6.5
PRELIMINARY RESULTS OF THE DSC ON SODI EXPERIMENTS: EXPERIMENTAL DETERMINATION OF SORET COEFFICIENTS IN TERNARY LIQUID SYSTEMS
Quentin Galand, Université Libre de Bruxelles, Belgium

IAC-12.A2.6.6
COULOMB SYSTEMS OF DIAMAGNETIC PARTICLES IN CUSP MAGNETIC TRAP UNDER GROUND AND MICROGRAVITY CONDITIONS
Oleg Petrov, Institution of the Russian Academy of Sciences Joint Institute for High Temperatures of the Russian Academy of Sciences, Russia

IAC-12.A2.6.7
THREE-DIMENSIONAL CELLULAR AND DENDRITIC PATTERNS UNDER DIFFUSION TRANSPORT: IN SITU CHARACTERISATION OF GROWTH DYNAMICS IN DECLIC-DIRECTIONAL SOLIDIFICATION INSERT ONBOARD ISS
Nathalie BERGEON, CNRS, France

IAC-12.A2.6.8
MISSION STS-134: RESULTS OF SHAPE MEMORY FOAM EXPERIMENT
Loredana Santo, University of Rome - Tor Vergata, Italy

IAC-12.A2.6.9
TURBIDITY MEASUREMENTS IN OFF-CRITICAL SF6
Yves GARRABOS, CNRS, France

IAC-12.A2.6.10
CAPILLARY CHANNEL FLOW - THE CCF EXPERIMENT ON THE INTERNATIONAL SPACE STATION
Michael Dreyer, ZARM - University of Bremen, Germany

A2.7. Microgravity Sciences Onboard the International Space Station and Beyond - Part 2

October 4 2012, 15:15 — TS05 (Betelgeus, Hall 2)

Chairs: *Peter Hofmann, Kayser-Threde GmbH, Germany; Christoph Pütz, Astrium Space Transportation, Germany;*
Rapporteur: *Gabriel Pont, Centre National d'Etudes Spatiales (CNES), France;*

IAC-12.A2.7.1
THE ITALIAN SPACE AGENCY UTILIZATION OF THE INTERNATIONAL SPACE STATION: 2001-2012 AND BEYOND
Salvatore Pignataro, Italian Space Agency (ASI), Italy

IAC-12.A2.7.2
GERMAN SIMBOX ON CHINESE MISSION SHENZHOU-8: THE WORLD'S FIRST BILATERAL COOPERATION UTILIZING CHINA'S SHENZHOU PROGRAMME.
Peter Preu, DLR, German Aerospace Center, Germany

IAC-12.A2.7.3
THE ITALIAN SPACE AGENCY DAMA MISSION RESEARCH PLAN. IMPLEMENTATION, EXECUTION AND OUTCOMES OF THE EXPERIMENTS.
Gabriele Mascetti, Italian Space Agency (ASI), Italy

IAC-12.A2.7.4
COMBUSTION, FLUID PHYSICS AND ACCELERATION MEASUREMENT EXPERIMENTS ON THE ISS
George Schmidt, National Aeronautics and Space Administration (NASA), United States

IAC-12.A2.7.6
RECENT RESULTS AND DEVELOPMENTS FOR COMPLEX PLASMA EXPERIMENTS FOR THE INTERNATIONAL SPACE STATION
Peter Hofmann, Kayser-Threde GmbH, Germany

IAC-12.A2.7.7
MARANGONI EXPERIMENT UTILIZING MICROGRAVITY IN KIBO
Satoshi Matsumoto, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A2.7.8
DEVELOPMENT OF THE DEXTEROUS MANIPULATION EXPERIMENT FOR THE ISS
Dirk Claessens, QinetiQ Space nv, Belgium

IAC-12.A2.7.9
AN ELECTRONIC NOSE NETWORK FOR THE AIR QUALITY MONITORING OF THE INTERNATIONAL SPACE STATION (ISS)
Eugenio Martinelli, University of Rome "Tor Vergata", Italy

IAC-12.A2.7.10
ESTIMATION AND ANALYSIS OF MICROGRAVITY ENVIRONMENT ON SPACE STATION
Tian yuan Hu, Institute of Manned Space System Engineering,China Academy of Space Technology (CAST), China

A3. SPACE EXPLORATION SYMPOSIUM

Coordinator: *Christian Sallaberger, MDA Corporation, Canada; Bernard Foing, ILEWG, The Netherlands;*

A3.1. Space Exploration Overview

October 1 2012, 15:15 — Plenary (Sala Europa, Palacongressi)

Chairs: *Christian Sallaberger, MDA Corporation, Canada; Luc Frécon, Thales Alenia Space France, France;*
Rapporteur: *Keyur Patel, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States; Norbert Frischauf, ORF, Austria;*

IAC-12.A3.1.1
CONSIDERATION ON THE LONG-RANGE STRATEGY OF THE ISECG GLOBAL EXPLORATION ROADMAP
Bernhard Hufenbach, European Space Agency (ESA), The Netherlands

IAC-12.A3.1.3
ANALYSIS OF COOPERATION OPPORTUNITIES FOR EUROPE IN FUTURE SPACE EXPLORATION PROGRAMMES
Jean-Baptiste THEPAUT, Euroconsult, France

IAC-12.A3.1.4
SPACE SCIENCE MISSIONS AND RELATED ACTIVITIES IN ISAS/JAXA
Munetaka UENO, Institute of Space and Astronautical Science, Japan

IAC-12.A3.1.5
A STRATEGY FOR ROBOTIC PRECURSOR MISSIONS TO SUPPORT HUMAN EXPLORATION
Christopher Moore, National Aeronautics and Space Administration (NASA), United States

IAC-12.A3.1.6
ESA - ROSCOSMOS STRATEGY FOR MOON EXPLORATION
Bruno Gardini, European Space Agency (ESA), The Netherlands

IAC-12.A3.1.7
FROM MARS TO OUTER PLANETS: ROBOTIC SPACECRAFT BUILDING BLOCKS AND ASSOCIATED TECHNOLOGICAL PREPARATION
Joel Poncy, Thales Alenia Space France, France

IAC-12.A3.1.8
USING OF ADVANCED DEVELOPMENTS IN THE FIELD OF TRANSPORT ROBOTICS FOR DESIGN OF NEXT-GENERATION PLANETARY ROVERS
Viktor A. Vorontsov, Lavochkin Association, Russia

IAC-12.A3.1.9
ROBOTIC EXPLORATION IN TODAY'S EVOLVING GLOBAL SPACE SECTOR
Kristian Grayson, Australia

IAC-12.A3.1.10
JPL INNOVATION FOUNDRY
Brent Sherwood, Caltech/JPL, United States

IAC-12.A3.1.11
RUSSIAN UNMANNED SPACECRAFT FOR FUNDAMENTAL SPACE RESEARCHES. THE PAST AND THE FUTURE (FOR 75TH ANNIVERSARY OF LAVOCHKIN ASSOCIATION)
Viktor A. Vorontsov, Lavochkin Association, Russia

A3.2A. Moon Exploration – Part 1

October 2 2012, 10:15 — TS15 (Ischia, Palacongressi)

Chairs: *Bernard Foing, ILEWG, The Netherlands; David Korsmeyer, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *William H. Siegfried, The Boeing Company, United States; Sylvie Espinasse, European Space Agency (ESA), The Netherlands;*

IAC-12.A3.2A.1
CHANDRAYAAN-1 MISSION, CHALLENGES AND UNIQUE FEATURES
Mylswamy Annadurai, ISRO Satellite Centre (ISAC), India

IAC-12.A3.2A.2
SMART-1 ARCHIVE DATA COMBINED ANALYSIS RESULTS WITH RECENT LUNAR MISSIONS
Bernard Foing, ILEWG, The Netherlands

IAC-12.A3.2A.5
RESEARCH AND DEVELOPMENT OF CHANG'E-2 SATELLITE
Linzhi Meng, Institute of Manned Space System Engineering,China Academy of Space Technology (CAST), China

IAC-12.A3.2A.6
UPSTREAM SOLAR WIND DECELERATION OBSERVED BY CE-2 LUNAR SPACECRAFT ABOVE LOW LATITUDE LUNAR MAGNETIC ANOMALY
Qiongying Ren, CSSAR, China

IAC-12.A3.2A.7
LANDER-ROVER MISSION FOR SUB-SURFACE SAMPLING NEAR THE LCROSS IMPACT POINT
David Gump, Astrobotic Technology Inc., United States

IAC-12.A3.2A.8
AN INVESTIGATION ON THE POSSIBILITY OF LUNAR GROUND POSITIONING SYSTEM USING NETWORK OF CUBESATS
Ji Hyun Park, Seoul National University, Korea, Republic of

IAC-12.A3.2A.9
SPACE ENVIRONMENTAL EFFECTS ON DUST MITIGATION TECHNOLOGY: A MISSE-X EXPERIMENT
Carlos Calle, NASA, United States

A3.2B. Moon Exploration – Part 2

October 2 2012, 15:15 — TS15 (Ischia, Palacongressi)

Chairs: *Bernard Foing, ILEWG, The Netherlands; David Korsmeyer, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *William H. Siegfried, The Boeing Company, United States; Sylvie Espinasse, European Space Agency (ESA), The Netherlands;*

IAC-12.A3.2B.1
STUDY STATUS OF JAPANESE MOON LANDER SELENE-2 IN 2012
Tatsuaki Hashimoto, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A3.2B.2
TEAM ROCKET CITY SPACE PIONEERS - PROGRESS REPORT ON THE GOOGLE LUNAR X PRIZE COMPETITION
Steve Cook, Dynetics, United States

IAC-12.A3.2B.3
CHANDRAYAAN-2: INDIA'S FIRST SOFT-LANDING MISSION ONTO MOON
Mylswamy Annadurai, ISRO Satellite Centre (ISAC), India

IAC-12.A3.2B.4
THE EUROPEAN LUNAR LANDER: A HUMAN EXPLORATION PRECURSOR MISSION
Richard Fisackerly, European Space Agency (ESA), The Netherlands

IAC-12.A3.2B.5
PAYLOADS FOR THE ESA LUNAR LANDER MISSION STUDIED BY KAYSER-THREDE
Peter Hofmann, Kayser-Threde GmbH, Germany

IAC-12.A3.2B.6
CHANG'E-2 SATELLITE LAGRANGE L2 POINT MISSION
Hao Huang, China Academy of Space Technology (CAST), China

IAC-12.A3.2B.7
KOREAN LUNAR LANDER DEMONSTRATOR DEVELOPMENT UPDATE
Gwanghyeok Ju, Korea Aerospace Research Institute, Korea, Republic of

IAC-12.A3.2B.8
LUNAR MISSION ORBITS WITH LONG LIFE-TIME AND GLOBAL COVERAGE
Feng Jinglang, Delft University of Technology (TU Delft), The Netherlands, China

IAC-12.A3.2B.9
A PRECISE QUANTITATIVE ANALYSIS EMPLOYING AN IN-SITU ROVER BASED LIBS INSTRUMENT FOR LUNAR SURFACE EXPLORATION
A.S. Laxmiprasad, Laboratory for Electro-Optics Systems (LEOS)-ISRO, India

IAC-12.A3.2B.10
PREPARING FOR LUNAR EXPLORATION
Friedhelm Claasen, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A3.2B.11
OPTIMIZATION OF LUNAR LANDER
Daniel Rosenberg, SpaceIL, Israel

A3.2C. Moon Exploration – Part 3

October 5 2012, 09:00 — TS19 (Vega, Palacongressi)

Chairs: *Bernard Foing, ILEWG, The Netherlands; David Korsmeyer, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *William H. Siegfried, The Boeing Company, United States; Sylvie Espinasse, European Space Agency (ESA), The Netherlands;*

IAC-12.A3.2C.1
NASA'S ROBOTIC LUNAR LANDER DEVELOPMENT PROGRAM
Benjamin Ballard, JHU Applied Physics Laboratory, United States

IAC-12.A3.2C.2
MEDIUM-CLASS LUNAR ROVER PROTOTYPE FOR SCIENCE & ISRU
Nadeem Ghafoor, MDA, Canada

IAC-12.A3.2C.3
TOWARDS SYSTEM ANALYSIS OF ADVANCED MANNED LUNAR EXPLORATION PROGRAM OPTIONS
Oleg Saprykin, TSNIIMASH, Russia

IAC-12.A3.2C.4
NASA'S LUNAR POLAR ICE PROSPECTOR, RESOLVE: MISSION SIMULATION IN APOLLO VALLEY
William Larson, National Aeronautics and Space Administration (NASA)/Kennedy Space Center, United States

IAC-12.A3.2C.5
UNIFYING SCIENCE-DRIVEN AND RESOURCE EXPLOITATION STRATEGIES FOR LUNAR MISSIONS: APPLYING LESSONS LEARNED FROM TERRESTRIAL GEOLOGICAL EXPLORATION AND CANADIAN PLANETARY ANALOGUE MISSIONS
Marianne Mader, University of Western Ontario, Canada

IAC-12.A3.2C.6
CRITICAL MOBILITY TECHNOLOGIES TO ENABLE LONG TERM LUNAR SURFACE ACTIVITY
Peter Visscher, Ontario Drive and Gear, Canada

IAC-12.A3.2C.7
ADAPTING AN OPEN-ARCHITECURE MISSION OPERATIONS SYSTEM FOR A LUNAR ROVER MISSION
Trevor Sorensen, University of Hawaii, United States

IAC-12.A3.2C.8
ULTRA-LONG-WAVELENGTH RADIO OBSERVATIONS ON THE MOON; A SCIENTIFIC AND TECHNICAL REVIEW
Amin Aminaei, Radboud University Nijmegen, The Netherlands

IAC-12.A3.2C.9
EXPERIMENTAL STUDY ON A NEW TYPE OF LUNAR SUBSURFACE EXPLORER ROBOT WITH PERISTALTIC CRAWLING MECHANISM
Takashi Kubota, JAXA, Japan

IAC-12.A3.2C.10
AROUND THE MOON IN 80 DAYS - INFLATABLE ROVERS
Dipl. Ing. Jeffrey Hendrikse, Astrium GmbH, Germany

IAC-12.A3.2C.11
ENGINEERING APPROACH OF AN AUTOMATED, BIOLOGICAL LUNAR PAYLOAD
Klaus Slenzka, OHB System AG, Germany

A3.2D. Moon Exploration – Poster session

October 2 2012, 13:15 — Poster Area (Hall 1)

Chairs: *Bernard Foing, ILEWG, The Netherlands; David Korsmeyer, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *William H. Siegfried, The Boeing Company, United States; Sylvie Espinasse, European Space Agency (ESA), The Netherlands;*

IAC-12.A3.2D.1
USING LUNAR MAPPING & MODELING PROJECT TO SUPPORT RETURN TO THE MOON AND BEYOND
Emily Law, Jet Propulsion Laboratory - California Institute of Technology, United States

IAC-12.A3.2D.2
DEVELOPMENT OF A COMPREHENSIVE SIMULATION FOR EVALUATING OPTIMAL LUNAR LANDING AND HAZARD AVOIDANCE TECHNIQUES USING LIDAR
Sungbeom Jo, Korea, Republic of

IAC-12.A3.2D.3
POLYNOMIAL GUIDANCE LAW VERSUS THE GRAVITY TURN GUIDANCE LAW FOR LUNAR ASCENT
Wangwang Liu, Beijing Institute of technology(BIT), China

IAC-12.A3.2D.4
USING GPR TO FIND WATER ON THE MOON AND OTHER CELESTIAL BODIES
Flor López Rodríguez, School of Engineering, UNAM, Mexico

IAC-12.A3.2D.5
STUDY OF A LUNAR SATELLITE NAVIGATION SYSTEM
Gemma Saura Carretero, Escola Tècnica Superior d'Enginyeries Industrial i Aeronàutica de Terrassa (ETSEIAT), Universitat Politècnica de Catalunya, Spain

IAC-12.A3.2D.9
DESIGN AND SIMULATION OF A BALANCE CONTROLLER FOR A LUNAR ROVER DESIGNED FOR THE GOOGLE LUNAR X-PRIZE COMPETITION
Kevin Schillo, University of Alabama in Huntsville, United States

IAC-12.A3.2D.10
SINTERING COMPOSITE MATERIAL FOR ISRU AND ISFR APPLICATION IN LUNAR AND MARS SURFACE
Carmelo Mandarino, Istituto Tecnico Industriale Statale, via Stazione, 87024, Fuscaldo (CS) Italy, Italy

IAC-12.A3.2D.11
DEVELOPMENT OF A NOVEL PERISTALTIC MOTION ROBOT DESIGNED TO BURROW WITHIN LUNAR AND MARTIAN REGOLITH
Mallory Brown, University of Alabama in Huntsville, United States

IAC-12.A3.2D.12
BIOLOGICALLY INSPIRED TRANSFORMING ROVING-ROLLING EXPLORER (TRREX) ROVER FOR LUNAR EXPLORATION
Andre Mazzoleni, North Carolina State University, United States

IAC-12.A3.2D.13
DESIGN OF A COOPERATIVE ROBOTIC COMMUNITY FOR SURFACE MOON EXPLORATION
Francisco García-de-Quirós, Emxys S.L., Spain

IAC-12.A3.2D.14
OWNERSHIP AND EXPENSE OF LUNAR MINING: THE DEBATE BETWEEN COMMERCIAL ENTERPRISE AND DEVELOPING NATION
Hardeep Singh, National Law University, India

IAC-12.A3.2D.15
DEVELOPMENT OF TEST FACILITY FOR LUNAR SURFACE EXPLORATION
Takeshi Hoshino, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A3.2D.16
EXTRACTION OF HELIUM-3 ON MOON- POTENTIAL SOLUTION TO ENERGY CRISIS ON EARTH
Muhammad Shadab Khan, Department of Aeronautical Engineering,Babu Banarasi Das National Institute of Technology and Management,Lucknow, India

IAC-12.A3.2D.17
CHANG'E-2 OBSERVATION OF INTENSIVE 4HE+ FLUX PICKED-UP BY SOLAR WIND IN DAYSIDE LUNAR EXOSPHERE
Hua Zhao, Center for Space Science and Applied Research, Chinese Academy of Sciences, China

IAC-12.A3.2D.18
SCIENCE AND PAYLOAD ACTIVITIES IN SUPPORT OF THE ESA LUNAR LANDER
James Carpenter, European Space Agency (ESA), The Netherlands

IAC-12.A3.2D.19
DEVELOPMENT AND ANALYSIS OF AN INTEGRATED NAVIGATION SENSOR FOR PLANETARY HOPPER NAVIGATION
Ted Steiner, Massachusetts Institute of Technology (MIT), United States

IAC-12.A3.2D.20
ATTAINABLE SETS APPROACH FOR LOW-ENERGY, LOW-THRUST INTERPLANETARY TRANSFERS
Renyong Zhang, Northwestern Polytechnical University, China

IAC-12.A3.2D.21
CURRENT STATUS AND EXPECTED PERFORMANCE OF THE LUNAR LASER RANGING RETROREFLECTOR ARRAY FOR THE 21ST CENTURY
Douglas Currie, University of Maryland, College Park, United States

IAC-12.A3.2D.23
SINGLE CAMERA BASED HAZARD AVOIDANCE AND AUTONOMOUS PRECISION LANDING SYSTEM FOR THE SMALL LUNAR LANDER
Satoru Kanazawa, The Graduate University for Advanced Studies, Japan

IAC-12.A3.2D.24
NOVEL AUTONOMOUS ORBIT DETERMINATION METHOD FOR LUNAR RENDEZVOUS AND DOCKING
Weiren Wu, Center of Lunar Exploration and Aerospace Engineering, China National Space Administration(CNSA), China

IAC-12.A3.2D.25
A LUNAR ROVER PATH SEARCHING ALGORITHM BASED ON TOPOLOGY
Tianyi Yu, Beijing Aerospace Control Center, China

IAC-12.A3.2D.26
MECHANISM OF IMPROVING AERODYNAMIC STABILITY CHARACTERISTICS OF A RE-ENTRY CAPSULE
Bingyan Chen, China Academy of Aerospace Aerodynamics(CAAA), China

IAC-12.A3.2D.27
ONBOARD PROPULSION SYSTEM FOR SMALL LUNAR ORBITER
Kyun Ho Lee, Korea Aerospace Research Institute, Korea, Republic of

IAC-12.A3.2D.28
A STUDY ON LUNAR EXPLORATION OUTPOST USING RETAINING WALL OF REGOLITH SANDBAGS
Shin-ichiro Nishida, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A3.2D.29
THE PESCHA SIMULATION CHAMBER: VACUUM AND DUST TRIBOLOGY TESTING MIMICKING PLANETARY SURFACE ENVIRONMENT CONDITIONS
Roberto Destefanis, Thales Alenia Space Italia, Italy

IAC-12.A3.2D.30
PLANNING AND ANALYSIS FOR COMMUNICATION SETUP USING LUNAR MISSIONS
Vishal Latha Balakumar, SRM University, India

IAC-12.A3.2D.31
ELASTIC PARALLEL COMPUTING PLATFORM BASED LUNAR ROVER STEREO VISION SYSTEM DESIGN
Zhe Wang, Beijing Institute of Tracking and Telecommunication Technology, China

IAC-12.A3.2D.32
CHARACTERIZING THE VERTICAL RIDE DYNAMICS OF THE IRINGS WHEEL
Daniel Oyama, McGill University, Canada

IAC-12.A3.2D.33
3-DIMENSIONAL ANALYTICAL SOLUTION FOR LUNAR DESCENT SCHEME
Ibrahim Mehedi, Japan

IAC-12.A3.2D.34
PROPULSIVE GUIDANCE FOR ACCURATE PLANETARY LANDING
Enrico Canuto, Politecnico di Torino, Italy

IAC-12.A3.2D.35
MODELLING AND CONTROL OF A SMALL QUADROTOR FOR TESTING PROPULSIVE PLANETARY LANDING GUIDANCE, NAVIGATION AND CONTROL
Enrico Canuto, Politecnico di Torino, Italy

IAC-12.A3.2D.36
AGRONOMICAL AND NUTRITIONAL CHARACTERIZATION OF SOYBEAN FOR BLSSS: LESSONS LEARNED FROM THE MELISSA PROJECT – FOOD CHARACTERIZATION PHASE I
Veronica De Micco, University of Naples Federico II, Italy

IAC-12.A3.2D.37
A DATA LOCATION PROCESSING MODEL FOR MULTI-SENSOR IN LUNAR EXPLORATION
Ligang Li, Center for Space Science and Applied Research, Chinese Academy of Sciences, China

IAC-12.A3.2D.38
PARAMETRIC STUDY ON AERODYNAMIC CHARACTERISTICS OF RE-ENTRY CAPSULES
Huiling Zhan, China Academy of Aerospace Aerodynamics(CAAA), China

A3.3A. Mars Exploration – Part 1

October 3 2012, 10:15 — TS15 (Ischia, Palacongressi)

Chairs: *Vincenzo Giorgio, Thales Alenia Space Italia, Italy; Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Cheryl Reed, The Johns Hopkins University Applied Physics Laboratory, United States; Amalia Ercoli Finzi, Politecnico di Milano, Italy;*

IAC-12.A3.3A.1
CURIOSITY: THE MARS SCIENCE LABORATORY MISSION
Richard A. Cook, National Aeronautics and Space Administration (NASA), United States

IAC-12.A3.3A.3
EXOMARS: ONE PROJECT TWO MISSIONS
Carlo Cassi, Thales Alenia Space Italia, Italy

IAC-12.A3.3A.4
EXOMARS MISSION 2016: EDM SCIENCE OPPORTUNITIES
Maurizio Capuano, Thales Alenia Space Italia, Italy

IAC-12.A3.3A.5
CHINESE YINGHUO-1 MARS EXPLORATION SPACE PROBE
Jianwen Hou, Shanghai Academy of Spaceflight Technology, China

IAC-12.A3.3A.6
A MULTI-TIER MARS MISSION ARCHITECTURE
Jeremy Straub, University of North Dakota, United States

IAC-12.A3.3A.7
MERLIN: MARS-MOON EXPLORATION, RECONNAISSANCE AND LANDED INVESTIGATION
Scott Murchie, JHU Applied Physics Laboratory, United States

IAC-12.A3.3A.8
ROBOTIC EXPLORATIONS AS PRECURSORS TO MANNED MISSIONS
Varun Eknath, India

IAC-12.A3.3A.9
FRACTIONATED ROBOTIC ARCHITECTURES FOR PLANETARY SURFACE MOBILITY SYSTEMS
Farah Alibay, Massachusetts Institute of Technology (MIT), United States

IAC-12.A3.3A.10
DESIGN, FABRICATION AND TESTING OF A LYMAN ALPHA PHOTOMETER FOR D/H STUDIES OF MARS UPPER ATMOSPHERE
VISWANATHAN M, Laboratory for Electro-Optics Systems (LEOS)-ISRO, India

IAC-12.A3.3A.11
DESIGN SPACE EXPLORATION OF AN ISOTENSOID INFLATABLE AERODYNAMIC DECELERATOR
Matthew Miller, Georgia Institute of Technology, School of Aerospace Engineering, United States

IAC-12.A3.3A.12
SENSITIVITY ANALYSIS OF VIRTUAL TERRAIN ACCURACY FOR VISION-BASED ALGORITHMS
Róbert Marc, Czech Technical University In Prague, The Netherlands

IAC-12.A3.3A.13
EFFECT OF NOSE CAVITY ON HEAT TRANSFER RATES TO THE SURFACE OF AN AEROSHELL DESCENDING THROUGH THE MARTIAN ATMOSPHERE
Ugur Guven, Turkey

IAC-12.A3.3A.14
THERMAL MODELING AND EXPERIMENTATION ON MARS ROCK ANALOGS TO PLAN ROVER SAMPLING OPERATIONS
Timothy Szwarc, Stanford University, United States

IAC-12.A3.3A.15
SCATTERING OF THE DUST STORM OF MARS AND THE ATTITUDE INVERSION OF MARS DETECTOR
He Hongfei, State Key-Lab of Electromagnetic Environment Research, Shanghai,China, China

IAC-12.A3.3A.16
NAVIGATION AND MAPPING WITHIN THE CONSTRAINTS OF A MARS MICRO-ROVER
Robert Hewitt, Faculty of Engineering, Carleton University, Canada

IAC-12.A3.3A.17
DESIGN AND EXPERIMENTS FOR A MARS METHANE ANALOGUE MISSION ROVER OPERATIONS
Ala' Qadi, Faculty of Engineering, Carleton University, Canada

IAC-12.A3.3A.18
OPTIMAL CONTROL OF SPACECRAFT DURING THE ASCENT OF MARS'ARTIFICIAL SATELLITE
Gennady Raykunov, Central Research Institute of Machine Building (FSUE/TSNIIMASH), Russia

IAC-12.A3.3A.19
NUMERICAL MODELLING OF THE CO2-N2 HYPERSONIC FLOW FOR SIMULATIONS OF MARS ENTRY CONDITIONS
Mario De Stefano Fumo, CIRA Italian Aerospace Research Centre, Italy

IAC-12.A3.3A.20
RASTAS SPEAR : RADIATION-SHAPES-THERMAL PROTECTION INVESTIGATIONS FOR HIGH SPEED EARTH RE-ENTRY PROJECT
Aurelien Pisseloup, EADS Astrium, France

IAC-12.A3.3A.21
SAME BEAM INTERFEROMETRY FOR THE ANALYSIS OF THE INTERNAL STRUCTURE OF CELESTIAL BODIES
Marco Gregnanin, Sapienza Università di Roma, Italy

A3.3B. Mars Exploration – Part 2

October 3 2012, 15:15 — TS15 (Ischia, Palacongressi)

Chairs: *Vincenzo Giorgio, Thales Alenia Space Italia, Italy; Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Cheryl Reed, The Johns Hopkins University Applied Physics Laboratory, United States; Amalia Ercoli Finzi, Politecnico di Milano, Italy;*

IAC-12.A3.3B.1
MARS EARLY HISTORY, AND THE EMERGENCE OF LIFE
Jean-Pierre Bibring, France

IAC-12.A3.3B.2
NASA MARS EXPLORATION PLANNING: PROGRAM REMEDIATION, PLANETARY PROTECTION REQUIREMENTS
John D. Rummel, East Carolina University, United States

IAC-12.A3.3B.4
MARS SAMPLE RETURN ORBITER: AN ASSESSMENT STUDY
Joel Poncy, Thales Alenia Space France, France

IAC-12.A3.3B.5
MARS EXPLORATION SCIENCE ROVER PROTOTYPE FOR SCIENCE & SAMPLE RETURN
Nadeem Ghafoor, MDA, Canada

IAC-12.A3.3B.6
TECHNOLOGICAL DEVELOPMENT AT CNES TOWARDS MARS SAMPLE RETURN
Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France

IAC-12.A3.3B.7
SAMPLE CANISTER CAPTURE MECHANISM FOR MARS SAMPLE RETURN: DESIGN AND TESTING OF AN ELEGANT BREADBOARD MODEL
Filippo Mailland, CGS S.p.A.Compagnia Generale per lo Spazio, Italy

IAC-12.A3.3B.8
DESIGN, BREADBORDING AND TESTING OF A BIO-CONTAINMENT SYSTEM FOR MARS SAMPLE RETURN MISSION
Samuel Senese, Selex Galileo, Italy

IAC-12.A3.3B.9
MARS SAMPLE RETURN: DESIGN OF THE BIO-CONTAINMENT SYSTEM
Dirk Claessens, QinetiQ Space nv, Belgium

IAC-12.A3.3B.10
OBSERVATIONS OF WIND DIRECTION BY AUTOMATED ANALYSIS OF IMAGES FROM MARS AND THE MSL ROVER
Raymond Francis, Western University, Canada

IAC-12.A3.3B.11
REAL-TIME WHEEL SLIPPAGE ESTIMATION FOR AN EXPERIMENTAL MARS ROVER
Ali Haydar Göktoğan, Australian Center for Field Robotics, Australia

IAC-12.A3.3B.12
ANALYSIS OF SAMPLE BAGGING OVER CONVENTIONAL METHODS TO COLLECT AND RETURN DIFFERENT TYPES OF ROCK SAMPLES ON THE SURFACE OF MARS
John Vrublevskis, Systems Engineering & Assessment Ltd, United Kingdom

A3.3C. Mars Exploration – Part 3

October 5 2012, 14:00 — TS15 (Ischia, Palacongressi)

Chairs: *Vincenzo Giorgio, Thales Alenia Space Italia, Italy; Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Cheryl Reed, The Johns Hopkins University Applied Physics Laboratory, United States; Amalia Ercoli Finzi, Politecnico di Milano, Italy;*

IAC-12.A3.3C.1
DREAMS - AN INTEGRATED MULTISENSOR SCIENTIFIC PAYLOAD FOR MARS EXPLORATION
Stefano Debei, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.A3.3C.2
RAMAN LASER SPECTROMETER FOR EXOMARS
Andoni G. Moral, National Institute for Aerospace Technology (INTA), Spain

IAC-12.A3.3C.3
EXOMARS DRILL EQM INTEGRATION AND PRELIMINARY QUALIFICATION CAMPAIGN
Alessandro Fumagalli, Selex Galileo, Italy

IAC-12.A3.3C.4
EXOMARS PROGRAMME: DESIGN, THERMO-MECHANICAL AND CHEMICAL BEHAVIOUR OF PARACHUTE MATERIALS AND STRUCTURES.
Marta Albano, University of Rome "La Sapienza", Italy

IAC-12.A3.3C.5
EXOMARS RDA – RADAR DOPPLER FOR MARS LANDING PURPOSES
Ornella Bombaci, Thales Alenia Space Italia, Italy

IAC-12.A3.3C.6
AN AUTONOMOUS GLIDER FOR MARS EXPLORATION
Daniell Wilson, Australia

IAC-12.A3.3C.7
WIND-DRIVEN TUMBLEWEED ROVERS FOR MARS EXPLORATION
Andre Mazzoleni, North Carolina State University, United States

IAC-12.A3.3C.8
POSSIBILITIES FOR THE LANDING ON MARS SOUTHERN HIGHLANDS
Dusan Marceta, University of Belgrade, Faculty of Mechanical Engineering, Yugoslavia

IAC-12.A3.3C.9
NONLINEAR PREDICTIVE CONTROLLER FOR HEADING ALIGNMENT IN MARS ENTRY GUIDANCE
Ren Gaofeng, Deep Space Exploration Research Center, Harbin Institute of Technology, China

IAC-12.A3.3C.10
RADIATIVE GASDYNAMICS OF MARTIAN ENTRY PROBES
Sergey Surzhikov, Institute for Problems in Mechanics of Russian Academy of Sciences, Russia

IAC-12.A3.3C.11
EFFECT OF DUST PARTICLES ON SPACE VEHICLES ENTERING MARS AT HYPERSONIC SPEEDS
Abdul Majid, Pakistan

A3.4. Small Bodies Missions and Technologies

October 4 2012, 10:15 — TS15 (Ischia, Palacongressi)

Chairs: *Susan McKenna-Lawlor, Space Technology (Ireland) Ltd., Ireland; Stephan Ulamec, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*
Rapporteur: *Marc D. Rayman, Jet Propulsion Laboratory - California Institute of Technology, United States; Norbert Frischauf, ORF, Austria;*

IAC-12.A3.4.1
EVOLUTION OF THE ROSETTA GROUND SEGMENT FOR THE COMET MISSION PHASE
Andrea Accomazzo, European Space Agency (ESA), Germany

IAC-12.A3.4.2
COMET SURFACE ENGINEERING PROPERTIES AND ACTIVITY ESTIMATION FOR SPACE MISSIONS: THE CASE OF 67P/ CHURYUMOV-GERASIMENKO
Jens Biele, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A3.4.3
DAWN'S EXPLORATION OF VESTA
Marc D. Rayman, Jet Propulsion Laboratory - California Institute of Technology, United States

IAC-12.A3.4.5
SYSTEM DESIGN OF HAYABUSA2 - ASTEROID SAMPLE RETURN MISSION TO 1999JU3
Yuichi Tsuda, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A3.4.6
THE SAMPLING SYSTEM OF HAYABUSA2 MISSIONS
Hirotaka Sawada, Japan Aerospace Exploration Agency (JAXA)/ ISAS, Japan

IAC-12.A3.4.7
A SMALL ASTEROID LANDER MISSION TO ACCOMPANY HAYABUSA-II
Ross Findlay, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A3.4.8
DEVELOPMENT STATUS OF SMALL CARRY-ON IMPACTOR FOR HAYABUSA-2 MISSION
Takanao Saiki, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A3.4.9
MARCOPOLO-R: NEAR EARTH ASTEROID SAMPLE RETURN MISSION IN ESA ASSESSMENT STUDY PHASE
Pascale Ehrenfreund, Space Policy Institute, George Washington University, United States

IAC-12.A3.4.10
DYNAMIC AND MORPHOLOGIC STUDIES OF THE MARCOPOLO-R BINARY ASTEROID SYSTEM BY LASER ALTIMETRY
Maria Rosaria Santovito, CO.RI.S.T.A., Italy

IAC-12.A3.4.11
MISSION ARCHITECTURES AND TECHNOLOGIES TO ENABLE NEOSHIELD, A GLOBAL APPROACH TO NEO IMPACT THREAT MITIGATION
Noah Saks, Astrium GmbH, Germany

IAC-12.A3.4.12
AN EXTENDED MISSION OF CHANG'E-2 FROM SUN-EARTH L2 POINT TO ASTEROID: DESIGN AND ANALYSIS
Dong Qiao, Beijing Institute of Technology, China

IAC-12.A3.4.13
WINNING ENTRY OF MOVE AN ASTEROID COMPETITION 2012 ORGANIZED BY SPACE GENERATION ADVISORY COUNCIL
TEJAL THAKORE, Space Generation Advisory Council (SGAC), United Kingdom

IAC-12.A3.4.14
FORMATION FLYING AROUND LIBRATION POINTS OF CIRCULAR RESTRICTED THREE BODY PROBLEM WITH SMALL $\MU$
Zhao Yuhui, Nanjing University, China

IAC-12.A3.4.15
THE ASTER MISSION: STRATEGIES FOR EXPLORING THE TRIPE SYSTEM 2001SN263
Othon Winter, UNESP - Univ Estadual Paulista, Brazil

IAC-12.A3.4.16
TOWARDS A NOVEL BIO-INSPIRED TECHNOLOGY FOR ACCESS TO THE PLANETARY SUBSURFACE
Tom Frame, Surrey Space Centre, University of Surrey, United Kingdom

IAC-12.A3.4.17
NEA TARGET SELECTION AND CLOSE ENCOUNTERS
Alessandro Rossi, IFAC-CNR, Italy

IAC-12.A3.4.18
MODELING AND SIMULATION OF PHILAE SOLAR ARRAYS FOR ON-COMET POWER PRODUCTION
Francesco Topputo, Politecnico di Milano, Italy

IAC-12.A3.4.19
LOW-COST GNC TECHNOLOGY FOR NEO EXPLORATION MISSIONS: APPLICATION TO MARCOPOLO-R AND OSIRIS-REX
Jesus Gil-Fernandez, GMV Aerospace & Defence SAU, Spain

IAC-12.A3.4.20
MISSION PLANS DEVELOPMENT FOR THE SAMPLER, DRILL AND DISTRIBUTION SUBSYSTEM OF ROSETTA MISSION
Pierluigi Di Lizia, Politecnico di Milano, Italy

IAC-12.A3.4.21
OPTIMAL LOW-THRUST TRAJECTORIES TO REACH THE ASTEROID APOPHIS
Denilson Paulo Souza dos Santos, INPE, Brazil

IAC-12.A3.4.22
STRATEGIES FOR THE SCIENTIFIC USE OF THE SAMPLER, DRILL AND DISTRIBUTION SUBSYSTEM (SD2)
Roberto Armellin, Politecnico di Milano, Italy

A3.5. Solar System Exploration

October 4 2012, 15:15 — TS15 (Ischia, Palacongressi)

Chairs: *Junichiro Kawaguchi, Japan Aerospace Exploration Agency (JAXA), Japan; Mariella Graziano, GMV Aerospace & Defence SAU, Spain;*
Rapporteur: *William H. Siegfried, The Boeing Company, United States; Gerhard Schwehm, European Space Agency (ESA), Spain;*

IAC-12.A3.5.1
THE MESSENGER MISSION CONTINUES: TRANSITION TO THE EXTENDED MISSION
Ralph L. McNutt, Jr., Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.A3.5.2
SOLAR PROBE PLUS MISSION DEFINITION
Mary Kae Lockwood, The Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.A3.5.3
RETURN TO VENUS OF THE JAPANESE VENUS CLIMATE ORBITER AKATSUKI
Masato Nakamura, ISAS/JAXA, Japan

IAC-12.A3.5.4
ORBIT DETERMINATION FOR THE RADIO SCIENCE EXPERIMENT OF THE NASA MISSION JUNO
Giacomo Tommei, University of Pisa, Italy

IAC-12.A3.5.5
ONE MISSION FOR SUN EXPLORATION
Mikhail S. Konstantinov, Moscow Aviation Institute, Russia

IAC-12.A3.5.7
ENCELADUS EXPLORER - A MANEUVERABLE SUBSURFACE PROBE FOR AUTONOMOUS NAVIGATION THROUGH DEEP ICE
Bernd Dachwald, FH Aachen University of Applied Sciences, Germany

IAC-12.A3.5.8
SCIENCE GOALS AND TECHNICAL CHALLENGES IN THE DESIGN OF AN ICE PENETRATING RADAR FOR THE JUPITER ICY MOONS
Lorenzo Bruzzone, DIT - University of Trento, Italy

IAC-12.A3.5.9
FROM MERCURY TO JUPITER: OVERVIEW ON SOLAR SYSTEM EXPLORATION MISSIONS AT ASTRIUM
Charles Koeck, EADS Astrium, France

IAC-12.A3.5.10
NAVIGATION SYSTEM FORMED BY SPACECRAFT LOCATED AT THE EARTH-MOON LIBRATION POINTS
Zhao Yuhui, Nanjing University, China

IAC-12.A3.5.12
PRECISION POINTING CONTROL OF A LARGE SEGMENTED SPACE TELESCOPE TESTBED
Eric Ulysses Diaz, United States

IAC-12.A3.5.13
EFFECT OF NOSE CAVITY ON THE HEAT FLUXES TO REENTRY VEHICLE IN TITAN'S ATMOSPHERE
Ugur Guven, Turkey

IAC-12.A3.5.14
AERODYNAMICS AND AEROTHERMODYNAMICS ANALYSES OF A EARTH-RE-ENTRY CAPSULE FOR SAMPLE RETURN MISSION IN THE FRAMEWORK OF RASTAS SPEAR PROJECT
Giuseppe Pezzella, CIRA Italian Aerospace Research Centre, Italy

IAC-12.A3.5.15
MERCURY IMAGING X-RAY SPECTROMETER (MIXS) IN BEPICOLOMBO MISSION: ENVIRONMENTAL TESTS
Jose A. Viceira, Instituto Nacional de Tecnica Aeroespacial (INTA), Spain

IAC-12.A3.5.16
SIMBIO-SYS FOR BEPICOLOMBO: THE DESIGN AND QUALIFICATION OF THE ITALIAN "EYES" TOWARDS MERCURY
Simone Pirrotta, Italian Space Agency (ASI), Italy

IAC-12.A3.5.17
ENABLING TECHNOLOGIES FOR FUTURE NEW FRONTIERS MISSION ATMOSPHERIC FLIGHT VEHICLES
Jill Prince, National Aeronautics and Space Administration (NASA), United States

IAC-12.A3.5.19
CONSTRUCTING OPTIMIZED OBSERVATIONS - THE SOLAR SYSTEM SCIENCE OPERATIONS LABORATORY
Marc Costa i Sitjà, INSA, Ingeniería y Servicios Aeroespaciales, S.A., Spain

IAC-12.A3.5.20
DETERMINATION OF THE PLANETARY ROTATION BY IMAGING FROM ORBIT
Rachele Meriggiola, Università di Roma "Sapienza", Italy

IAC-12.A3.5.21
STABLE REGIONS LOCATED INTERIOR TO CHARON'S ORBIT: THE ENCOUNTER WITH THE NEW HORIZONS MISSION IN 2015
Silvia Maria Giuliati Winter, Universidade Estadual Paulista-UNESP, Brazil

A4. 41st IAA SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps

Coordinator: *Seth Shostak, SETI Institute, United States; Claudio Maccone, International Academy of Astronautics (IAA), Italy;*

A4.1. SETI 1: SETI Science and Technology

October 2 2012, 15:15 — TS12 (Stromboli, Palacongressi)

Chairs: *Lori Walton, Tigerstar Geoscience, Canada; Stelio Montebugnoli, National Institute for Astrophysics, Italy;*
Rapporteur: Douglas Vakoch, SETI Institute and California Institute of Integral Studies, United States;

IAC-12.A4.1.1
INTRODUCTION TO SETI SCIENCE AND TECHNOLOGY
H. Paul Shuch, The SETI League, Inc., United States

IAC-12.A4.1.2
SETI IN BERKELEY: WHAT NOW? WHERE NEXT?
Eric Korpela, U.C. Berkeley, United States

IAC-12.A4.1.3
PROGRESS IN TWO RADIO SETI EXPERIMENTS: THE SEARCH FOR EXTRATERRESTRIAL RADIO EMISSION FROM NEARBY DEVELOPED INTELLIGENT POPULATIONS (SERENDIP) AT ARECIBO OBSERVATORY AND SETI IN THE KEPLER FIELD WITH THE GREEN BANK TELESCOPE
Andrew Siemion, University of California, United States

IAC-12.A4.1.4
RECENT OBSERVATIONS AND NEXT STEPS FOR SETI PROGRAMS AT THE SETI INSTITUTE
Gerald (Gerry) Harp, SETI Institute, United States

IAC-12.A4.1.5
TARGETED SETI ACTIVITY IN THE UPLINK SPACECRAFT COMMUNICATION CHANNELS.
Francesco Schillirò, INAF, Italy

IAC-12.A4.1.6
AN ENHANCED PIGGYBACK MODE FOR SETI OBSERVATIONS
Salvatore Pluchino, INAF - IRA, Italy

IAC-12.A4.1.8
ITALIAN OPTICAL SETI SEARCHES AT FOAM13 OBSERVATORY
Claudio Maccone, International Academy of Astronautics (IAA), Italy

IAC-12.A4.1.9
GALACTIC-SCALE SIGNATURES FOR INTERSTELLAR ARCHAEOLOGY AND THE SEARCH FOR LIFE AND INTELLIGENCE IN THE UNIVERSE.
Richard Carrigan, Fermi National Accelerator Laboratory, United States

IAC-12.A4.1.10
LARGE-SIZE MESSAGE CONSTRUCTION FOR ETI, VALIDATION OF LINGUA COSMICA
Alexander Ollongren, Leiden University, The Netherlands

IAC-12.A4.1.11
SOLAR SAILING TO THE SUN'S INNER GRAVITY FOCUS: A DESIGN STUDY
Gregory Matloff, New York City College of Technology, United States

IAC-12.A4.1.12
INTEGRATION OF REMOTE SENSING FOR EXTRATERRESTRIAL GEOLOGICAL STUDIES
Subhakar Dandamudi, University of Petroleum and Energy Studies, India

A4.2. SETI 2: SETI and Society

October 3 2012, 10:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Paolo Musso, University of Insubria, Italy; Richard Clar, Art Technologies, France;*
Rapporteur: *H. Paul Shuch, The SETI League, Inc., United States;*

IAC-12.A4.2.1
FANNING THE FLAMES OF SETI PASSION
H. Paul Shuch, The SETI League, Inc., United States

IAC-12.A4.2.2
SEEKING INTELLIGENCE FAR BEYOND OUR OWN
Seth Shostak, SETI Institute, United States

IAC-12.A4.2.3
SIGNATURES OF MACHINE INTELLIGENCE
John Elliott, Leeds Metropolitan University, United Kingdom

IAC-12.A4.2.4
EVOLUTION AND HISTORY IN A NEW "MATHEMATICAL SETI" MODEL
Claudio Maccone, International Academy of Astronautics (IAA), Italy

IAC-12.A4.2.5
COMMUNICATING EXISTENTIAL ACCOUNTS OF BEING HUMAN IN INTERSTELLAR MESSAGES
Douglas Vakoch, SETI Institute and California Institute of Integral Studies, United States

IAC-12.A4.2.6
NEUROPSYCHOSOCIAL MODEL OF CONTACT. NEurosCIENCE, CONSCIOUSNESS AND THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE.
Gabriel G. De la Torre, Universidad de Cádiz, Spain

IAC-12.A4.2.7
THE 'INTELLIGENCE' IN SETI: HISTORICAL CONCEPTS AND NEW RESEARCH
Kathryn Denning, York University, Canada

IAC-12.A4.2.8
PROFILING NONHUMAN INTELLIGENCE: AN EXERCISE IN DEVELOPING UNBIASED TOOLS FOR DESCRIBING OTHER TYPES OF INTELLIGENCE ON EARTH.
Denise Herzing, Wild Dophin Project and Florida Atlantic University, United States

IAC-12.A4.2.9
THE LONG VIEW: SUSTAINING MULTIGENERATIONAL SCIENCE
Kathryn Denning, York University, Canada

A5. IAA HUMAN EXPLORATION OF THE SOLAR SYSTEM SYMPOSIUM

Coordinator: *Christian Sallaberger, MDA Corporation, Canada; Maria Antonietta Perino, Thales Alenia Space Italia, Italy;*

A5.1. Near Term Strategies for Lunar Surface Infrastructur

October 2 2012, 15:15 — TS13 (Panarea, Palacongressi)

Chairs: *Maria Antonietta Perino, Thales Alenia Space Italia, Italy; Nadeem Ghafoor, MDA, Canada;*

IAC-12.A5.1.1
NASA EPSCOR CAN 2009: INTEGRATED STRATEGIES FOR THE HUMAN EXPLORATION OF THE MOON AND MARS
Pablo de Leon, Federacion Argentina Astronautica (FAA), Argentina

IAC-12.A5.1.2
MDRS 2011-2012 ILEWG CAMPAIGN: TESTING HABITABILITY AND PERFORMANCE AT AN ANALOGUE MOON BASE INFRASTRUCTURE OUTPOST ON EARTH.
Irene Lia Schlacht, Technische Universität Berlin, Germany

IAC-12.A5.1.3
LUNAR WAY-STATION
Satinder Shergill, Space Generation Advisory Council, United Kingdom

IAC-12.A5.1.4
INTRODUCTION OF INTERNATIONAL SPACE EXPLORATION RESEARCH INSTITUTE ACTIVITIES IN KOREA
Tai Sik Lee, Hanyang University, Korea, Republic of

IAC-12.A5.1.5
LUNAR RESEARCH BASE DESIGN FOR SUSTAINABLE HUMAN EXPLORATION OF THE SOLAR SYSTEM
Sagar Satpathy, SRM University, Chennai, India

IAC-12.A5.1.6
SHACKLETON ENERGY LUNAR SOURCED PROPELLANT DEPOT ARCHITECTURE
Jim Keravala, Shackleton Energy Company, United States

IAC-12.A5.1.7
STRUCTURAL MEMBERS PRODUCED FROM UNREFINED LUNAR REGOLITH, A STRUCTURAL ASSESSMENT
Stephen Indyk, Rutgers University, United States

IAC-12.A5.1.8
DESIGN AND EXPERIMENTAL CHARACTERIZATION OF ELECTROMAGNETIC SHOCK ABSORBERS FOR LANDING GEARS
Alessandro Rapisarda, Thales Alenia Space Italia, Italy

IAC-12.A5.1.9
THE REALIZATION OF A LUNAR GRAVITY SIMULATION SYSTEM
Jiantong Wu, Beijing Special Engineering Design and Research Institute, China

IAC-12.A5.1.10
CURRENT DEVELOPMENT OF MANNED LUNAR LANDINGS
Shing Yik Yim, Tsinghua University, China

A5.2. Long Term Scenarios for Human Moon/ Mars Presence

October 3 2012, 15:15 — TS13 (Panarea, Palacongressi)

Chairs: *William H. Siegfried, The Boeing Company, United States; Uwe Apel, Hochschule Bremen, Germany;*
Rapporteur: *Nadeem Ghafoor, MDA, Canada;*

IAC-12.A5.2.1
WHAT IS THE VALUE OF SPACE EXPLORATION?
Gerhard Thiele, European Space Policy Institute (ESPI), Austria

IAC-12.A5.2.3
THE DESIGN OF INTELLIGENT DEVICES AS MOON OR MARS BASE
Léonard Boeldieu, France

IAC-12.A5.2.4
EDEN – EVOLUTION AND DESIGN OF AN ENVIRONMENTALLY-CLOSED NUTRITION SOURCE
Daniel Schubert, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A5.2.5
SPACE TOURISM - ESSENTIAL STEP IN HUMAN SETTLEMENT OF SPACE
Derek Webber, Spaceport Associates, United States

IAC-12.A5.2.6
SCIENTIFIC RESULTS AND LESSONS LEARNED FROM AN INTEGRATED CREWED MARS EXPLORATION SIMULATION AT THE RIO TINTO MARS ANALOGUE SITE
Csilla Orgel, Eötvös Loránd University, Hungary

IAC-12.A5.2.7
AEROSHELL DESIGN CHALLENGES FOR MARS DESCENT CONCEPT
Abraham Chavez Velazco, University of Houston, United States

IAC-12.A5.2.8
A NEW METHOD FOR MARS PATHFINDER ENTRY OF MULTIPLE CASES
Qiong Liu, China Academy of Space Technology (CAST), China

A5.3-B3.6. Joint Session on Human and Robotic Partnerships to Realise Space Exploration Goals

October 4 2012, 15:15 — TS11 (Egadi, Palacongressi)

Chairs: *Christian Sallaberger, MDA Corporation, Canada; Anthony R. Gross, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *Mark Hempsell, The British Interplanetary Society, United Kingdom; Alexandra Kindrat, International Space University (ISU), Canada;*

IAC-12.A5.3-B3.6.1
SOCIAL ROBOTS FOR LONG-TERM SPACE MISSIONS
Sebastian Schneider, Bielefeld University, Germany

IAC-12.A5.3-B3.6.2
HUMAN-ROBOTIC PARTNERSHIPS AND PERFORMANCE: LESSONS LEARNED FROM ILEWG EUROMOONMARS CAMPAIGNS 2012 AND 2011
Irene Lia Schlacht, Technische Universität Berlin, Germany

IAC-12.A5.3-B3.6.3
BASELINE SCIENTIFIC REQUIREMENTS FOR A LUNAR ROBOTIC PRECURSOR MISSION: LESSONS LEARNED FROM ANALOGUE MISSIONS AT THE MISTASTIN (KAMESTASTIN) LAKE IMPACT STRUCTURE, CANADA
Marianne Mader, University of Western Ontario, Canada

IAC-12.A5.3-B3.6.4
SPDM GROUND TESTING OF THE ROBOTIC REFUELING MISSION (RRM) OPERATIONS
Cameron Ower, MDA, Canada

IAC-12.A5.3-B3.6.5
PRESSURIZED OR UNPRESSURIZED ROVERS FOR MARS SURFACE EXPLORATION
Jean Marc Salotti, Laboratoire de l'Intégration du Matériau au Système, France

IAC-12.A5.3-B3.6.6
DEVELOPMENT AND IMPLEMENTATION OF ALGORITHMS FOR ADVANCED ROVER GUIDANCE NAVIGATION AND CONTROL
Giuseppe Casalino, University of Genova, Italy

IAC-12.A5.3-B3.6.7
DESIGN AND DEVELOPMENT OF A LUNAR ROVER IN ASSOCIATION WITH THE GOOGLE™ LUNAR X-PRIZE COMPETITION
Jeremy M. Traum, University of Alabama in Huntsville, United States

IAC-12.A5.3-B3.6.8
DYNAMIC MODELLING OF PLANETARY ROVERS
Giancarlo Genta, Politecnico di Torino, Italy

IAC-12.A5.3-B3.6.9
CONTROL SYSTEM ARCHITECTURE BASED ON MULTI-CAMERA VISION OF CHINA SPACE REMOTE MANIPULATOR
ZHANG XIAO DONG, CAST, China

A5.4. Going Beyond the Earth-Moon System: Human Missions to Mars, Libration Points, and NEO's

October 5 2012, 09:00 — TS13 (Panarea, Palacongressi)

Chairs: *Ernst Messerschmid, University of Stuttgart, Germany; Lionel Suchet, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Gerhard Schwehm, European Space Agency (ESA), Spain;*

IAC-12.A5.4.1
TRADESPACE EXPLORATION APPROACH FOR ARCHITECTURAL DEFINITION OF IN-SPACE TRANSPORTATION INFRASTRUCTURE SYSTEMS FOR FUTURE HUMAN SPACE EXPLORATION
Alexander Rudat, Massachusetts Institute of Technology (MIT), United States

IAC-12.A5.4.2
TRAJECTORY OPTIONS FOR INTERPLANETARY HUMAN EXPLORATION
David Dunham, Kinetx, Inc., United States

IAC-12.A5.4.3
HUMAN EXPLORATION MISSION TO A NEAR EARTH ASTEROID: MISSION DESCRIPTION AND KEY TECHNOLOGIES ASSESSMENT
Maria Antonietta Viscio, Thales Alenia Space Italia, Italy

IAC-12.A5.4.4
AN INCREMENTAL SERIES OF HUMAN EXPLORATION MISSIONS FROM EARTH ORBIT TO THE MOONS OF MARS
Josh Hopkins, Lockheed Martin Space Systems Company, United States

IAC-12.A5.4.5
INTERPLANETARY MANNED ROUNDTRIP MISSIONS BASED ON LIQUID PROPULSION STAGES
Pierpaolo Pergola, Alta, Italy

IAC-12.A5.4.6
MISSION ANALYSIS AND CONCEPTUAL SYSTEM DESIGN OF A MODULAR CREW VEHICLE FOR HUMAN EXPLORATION OF NEAR-EARTH ASTEROIDS
Aline Zimmer, University of Stuttgart, Germany

IAC-12.A5.4.7
RESULTS OF THE ESA SCENARIO STUDY ON HUMAN SPACEFLIGHT AND EXPLORATION PHASE 2
Bernd Bischof, EADS Astrium Space Transportation GmbH, Germany

IAC-12.A5.4.8
PROPOSITION OF A EUROPEAN ARCHITECTURE FOR CREWED NEA-MISSIONS
Volker Maiwald, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A5.4.9
A REFERENCE STUDY ON CONSTRUCTING HUMAN EXPLORATION STATION AT EARTH-MOON LIBRATION POINT
Masanori Tsuboi, Mitsubishi Heavy Industries, Ltd., Japan

IAC-12.A5.4.10
POSSIBLE SCENARIOS FOR MARS MANNED EXPLORATION
Daniel Dorney, NASA, United States

IAC-12.A5.4.11
PROJECT 5S: A SAFE STEPPING STONE INTO THE SOLAR SYSTEM
John Brophy, Jet Propulsion Laboratory - California Institute of Technology, United States

IAC-12.A5.4.12
HOW TO SAVE DELTA-V AND TIME FOR A ROUND TRIP TO EML2 LAGRANGIAN POINT ?
Stéphanie Lizy-Destrez, SUPAERO- Ecole Nationale Supérieure de l'Aéronautique et de l'Espace, France

IAC-12.A5.4.13
ANALYTICAL EXPLORATION OF MANNED SPACE MISSION TO HELIOPAUSE
Ugur Guven, Turkey

A6. IAA SPACE DEBRIS SYMPOSIUM

Coordinator: *Nicholas L. Johnson, National Aeronautics and Space Administration (NASA), United States; Christophe Bonnal, Centre National d'Etudes Spatiales (CNES), France;*

A6.1. Measurements

October 1 2012, 15:15 — TS02 (Centauri, Hall 2)

Chairs: *Patrick Seitzer, University of Michigan, United States; Vladimir Agapov, Keldysh Institute of Applied Mathematics, RAS, Russia;*
Rapporteur: *Thomas Schildknecht, Astronomical Institute University of Bern (AIUB), Switzerland;*

IAC-12.A6.1.1
LIGHT CURVE OBSERVATIONS OF UPPER STAGES IN THE LOW EARTH ORBIT ENVIRONMENT
J.-C. Liou, National Aeronautics and Space Administration (NASA), United States

IAC-12.A6.1.2
SPIN-AXIS DETERMINATION OF SL-8 SECOND STAGE ROCKET BODIES
Roger Tippets, U.S. Air Force, United States

IAC-12.A6.1.3
THE LOIANO CAMPAIGNS FOR PHOTOMETRY AND SPECTROSCOPY OF GEOSYNCHRONOUS OBJECTS
Alessandro Rossi, IFAC-CNR, Italy

IAC-12.A6.1.4
COMPARISON OF PHYSICAL PROPERTIES OF GEO AND HEO OBJECTS TRACKING BY ISON DERIVED FROM MULTIYEAR OBSERVATION STATISTICS
Vladimir Agapov, Keldysh Institute of Applied Mathematics, RAS, Russia

IAC-12.A6.1.5
SEARCH FOR SPACE DEBRIS IN THE MEO REGION WITH ZIMSMART
Johannes Herzog, Astronomical Institute University of Bern (AIUB), Switzerland

IAC-12.A6.1.6
SEARCHING FOR OPTICALLY FAINT GEO DEBRIS
Patrick Seitzer, University of Michigan, United States

IAC-12.A6.1.7
DETECTING GEO DEBRIS IMAGES VIA VOTING OF MOTION TRAJECTORY FEATURES
Koki Fujita, Kyushu University, Japan

IAC-12.A6.1.8
EISCAT SPACE DEBRIS AFTER THE INTERNATIONAL POLAR YEAR (IPY)
Alan Li, Stanford University, United States

IAC-12.A6.1.9
CONFIGURATION AND DESIGN OPTIONS TO MONITOR GSO SPACE DEBRIS BY MULTI OBJECT TRACKING RADAR OFISRO
SV Subbarao, Indian Space Research Organization (ISRO), India

IAC-12.A6.1.10
INTERNATIONAL COLLABORATION AS A PRIMARY WAY FOR THE ISON NETWORK DEVELOPMENT
Igor Molotov, Keldysh Institute of Applied Mathematics, RAS, Russia

IAC-12.A6.1.11
DEBIE2 (DEBRIS-IN-ORBIT-EVALUATOR) ON BOARD OF ISS: RESULTS FROM THE IMPACT DATA AND POST-FLIGHT ANALYSIS
Alessandra Menicucci, ESA/ESTEC, The Netherlands

IAC-12.A6.1.12
ANALYSIS OF CLOSE APPROACH IN GEO USING OPTICAL MEASUREMENTS
Fabio Santoni, University of Rome "La Sapienza", Italy

IAC-12.A6.1.13
TRACK INITIATION USING SPARSE RADAR DATA FOR LOW EARTH ORBIT OBJECTS
Thibaut Castaings, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France

IAC-12.A6.1.14
MISSION ANALYSIS OF THE SPACE-BASED OPTICAL OBSERVATION FOR ORBITAL DEBRIS
Makoto Tagawa, Kyushu University, Japan

IAC-12.A6.1.15
SURVEY-ONLY STRATEGIES FOR THE DETECTION AND CATALOGUING OF SPACE DEBRIS
Estrella Olmedo, Deimos Space S.L., Spain

IAC-12.A6.1.16
OBSERVATIONS STRATEGIES FOR SPACE DEBRIS ON HIGHLY-ECCENTRIC MEO ORBITS
Andreas Hinze, Astronomical Institute University of Bern (AIUB), Switzerland

IAC-12.A6.1.17
SPACE-BASED SURVEILLANCE OF GEO USING ESA'S CONSTELLATION MISSION "GALILEO"
Özgün YILMAZ, Turkey

IAC-12.A6.1.18
A SMART PAYLOAD COLLABORATES WITH THE GROUND SSA OBSERVATION NETWORK TO SIGNIFICANTLY IMPROVE DEBRIS SURVEY AND TRACKING CAPABILITIES
Lorenzo Cibin, CGS S.p.A.Compagnia Generale per lo Spazio, Italy

IAC-12.A6.1.19
PERFORMANCE ANALYSIS OF PHASED ARRAY RADAR DETECTION WITH SMALL PROPAGATION WINDOW
Hai Jiang, National Astronomical Observatories, Chinese Academy of Sciences, China

IAC-12.A6.1.20
UNISAT-5: A MICROSATELLITE FOR SPACE DEBRIS MONITORING
Riccardo Di Roberto, Scuola di Ingegneria Aerospaziale, Italy

IAC-12.A6.1.21
CROSS-CHARACTERIZATION OF OBJECTS IN LIBRATION ORBITS AROUND THE WESTERN STABLE POINT
Mark Skinner, Boeing, United States

IAC-12.A6.1.23
USE IMAGE STACKING FOR GEO SPACE DEBRIS DETECTION
Rong-Yu Sun, Purple Mountain Astronomical Observatory, China

A6.2. Modelling and Risk Analysis

October 2 2012, 10:15 — TS02 (Centauri, Hall 2)

Chairs: *Luciano Anselmo, ISTI-CNR, Italy; Carsten Wiedemann, Technical University of Braunschweig, Germany;*
Rapporteur: *Toshiya Hanada, Kyushu University, Japan;*

IAC-12.A6.2.1
A NEW APPROACH FOR CONJUNCTION ANALYSIS AND COLLISION RISK RANKING
Nicolas Bérend, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France

IAC-12.A6.2.2
COMPUTING COLLISION PROBABILITY USING DIFFERENTIAL ALGEBRA AND ADVANCED MONTE CARLO METHODS
Alessandro Morselli, Politecnico di Milano, Italy

IAC-12.A6.2.3
A CLOUD BASED CONJUNCTION ANALYSIS AND VISUALISATION TOOL USING A POWERFUL FILTERING METHOD AND STATE OF THE ART SOFTWARE TECHNOLOGIES
Daniel Novak, Logica Deutschland GmbH&Co. KG, Germany

IAC-12.A6.2.4
ANALYSIS OF UNCERTAINTIES OF CATALOGUED ORBITAL DATA FOR THE UPDATE OF THE ESA DRAMA ARES TOOL
Noelia Sánchez-Ortiz, Deimos Space S.L., Spain

IAC-12.A6.2.5
LONG-TERM DYNAMICS OF HIGH AREA-TO-MASS RATIO SPACE DEBRIS IN GEO
Aaron Rosengren, University of Colorado, United States

IAC-12.A6.2.6
ATTITUDE MOTION OF SPACE DEBRIS OBJECTS UNDER INFLUENCE OF SOLAR RADIATION PRESSURE
Carolin Früh, University of New Mexico, United States

IAC-12.A6.2.7
SENSITIVITY STUDY OF LEO DEBRIS HAZARD EVOLUTION
Frank Di Pentino, Integrity Applications Incorporated (IAI), United States

IAC-12.A6.2.8
RANKING AND CHARACTERIZATION OF HEAVY DEBRIS FOR ACTIVE REMOVAL
Jens Utzmann, EADS Astrium Satellites, Germany

IAC-12.A6.2.9
THE EFFECTS OF SOLAR MAXIMUM ON THE EARTH'S SATELLITE POPULATION AND SPACE SITUATIONAL AWARENESS
Nicholas L. Johnson, National Aeronautics and Space Administration (NASA), United States

IAC-12.A6.2.10
MODELLING AND ESTIMATION OF THE PHOBOS-GRUNT PARAMETERS OF MOTION AND RE-ENTRY
Natalia Golubtsova, Central Research Institute of Machine Building, Russia

IAC-12.A6.2.11
RISK MITIGATION ACTIVITIES FOR POTENTIAL COLLISION AVOIDANCE EVENTS FOR COSMO-SKYMED CONSTELLATION IN FLIGHT OPERATIONS
Fabio D'Amico, Italian Space Agency (ASI), Italy

IAC-12.A6.2.12
DYNAMIC AND CONTROL BASED ON SINGULAR PERTURBATION THEORY OF FREE FLOATING FLEXIBLE SPACE MANIPULATOR DURING CAPTURE UNCERTAIN DEBRIS
Qiuhuang Dong, Fuzhou University, China

IAC-12.A6.2.13
PRIORITY TARGETS FOR ACTIVE DEBRIS REMOVAL MISSIONS.
Chijioke (CJ) Nwosa, Space Generation Advisory Council (SGAC), South Africa

IAC-12.A6.2.14
THE SPACE-BASED TELESCOPES FOR ACTIONABLE REFINEMENT OF EPHEMERIS (STARE) MISSION
Willem De Vries, Lawrence Livermore National Laboratory, United States

IAC-12.A6.2.15
MODELING AND MEASUREMENT OF ELECTROMAGNETIC SCATTERING BY SPACE DEBRIS
Fei Dai, China

IAC-12.A6.2.16
A PROPOSED MODEL FOR PREDICTIONS OF RE-ENTRY TIME AND IMPACT LOCATIONS OF RISK OBJECTS AND ASSESSMENT OF ATMOSPHERIC DENSITY MODELS
Himani Saini, Indian Space Research Organization (ISRO), India

IAC-12.A6.2.17
SUPPORTING CONJUNCTION EVENT ASSESSMENT BY ACQUIRING TRACKING DATA
Benjamin Bastida Virgili, European Space Agency (ESA), Germany

IAC-12.A6.2.18
USING THE DESIGN FOR DEMISE PHILOSOPHY TO REDUCE CASUALTY RISK DUE TO REENTERING SPACECRAFT
Robert Kelley, ESCG/Jacobs, United States

IAC-12.A6.2.19
GEOSTATIONARY ORBIT ANOMALY DETECTION BASE ON DISPERSION OF DRIFT RATE
Xianzong Bai, National University of Defense Technology, China

IAC-12.A6.2.20
ADAPTIVE STRATEGIES FOR SPACE DEBRIS MITIGATION AND REMEDIATION
Adam White, University of Southampton, United Kingdom

A6.3. Hypervelocity Impacts and Protection

October 2 2012, 15:15 — TS02 (Centauri, Hall 2)

Chairs: *Alessandro Francesconi, University of Padova, Italy; Martin Rudolph, Fraunhofer EMI, Germany;*
Rapporteur: *Frank Schaefer, Fraunhofer - Institut für Kurzzeitdynamik, Ernst-Mach-Institut (EMI), Germany;*

IAC-12.A6.3.1
THE HYPERVELOCITY IMPACT PERFORMANCE OF HONEYCOMB CORE SANDWICH PANELS
Shannon Ryan, Defence Science and Technology Organisation (DSTO), Australia

IAC-12.A6.3.2
A DETAILED IMPACT RISK ASSESSMENT OF TWO LOW EARTH ORBITING SATELLITES
Hedley Stokes, PHS Space Ltd, United Kingdom

IAC-12.A6.3.3
DEBRIS SHIELDING FOR INFLATABLE STRUCTURES DEVELOPMENT AND CHARACTERIZATION AT HYPERVELOCITY IMPACTS
Roberto Destefanis, Thales Alenia Space Italia, Italy

IAC-12.A6.3.4
TERMINAL BALLISTICS OF FLEXIBLE MICROMETEOROID AND SPACE DEBRIS PROTECTION SHIELDS
Martin Rudolph, Fraunhofer EMI, Germany

IAC-12.A6.3.5
A MODEL TO DESCRIBE THE SIZE DISTRIBUTION OF SATELLITE BREAKUP DEBRIS
Sen Liu, China Aerodynamics Research and Development Center, China

IAC-12.A6.3.6
HYPER VELOCITY PROTECTION DEVELOPMENTS ON THE SOLAR PROBE PLUS MISSION
Douglas Mehoke, Johns Hopkins University Applied Physics Laboraory, United States

IAC-12.A6.3.7
DESIGN AND FABRICATION OF DEBRISAT – A REPRESENTATIVE LEO SATELLITE FOR IMPROVEMENTS TO STANDARD SATELLITE BREAKUP MODELS
Mark Werremeyer, University of Florida, United States

IAC-12.A6.3.8
BULLETPROOFING SATELLITES: MODELING THE PHYSICS OF HYPERVELOCITY IMPACTS
Andrew Thurber, Virginia Tech, United States

IAC-12.A6.3.9
SPACECRAFT COMPOSITE SHIELDING SYSTEM: COMBINATION OF NORMAL AND OBLIQUE BUMPERS
Abrar-Ul-Haq Khan Baluch, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of

IAC-12.A6.3.10
HVI-TEST SETUP OF IN-SITU SPACE DEBRIS DETECTOR
Waldemar Bauer, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.A6.3.11
RESEARCH OF THE SPACE DEBRIS IMPACT DETECTING SYSTEM USED ON THE SPACE STATION
Dongyong Jia, China Academy of Space Technology (CAST), China

IAC-12.A6.3.12
PRELIMINARY STUDY ON THE TEST OF THE SPACE SMALL DEBRIS IMPACT ON SOLAR CELLS
Ruihai Song, China

IAC-12.A6.3.13
HYPERVELOCITY IMPACT EXPERIMENT ON PERFORMANCE OF STUFFED WHIPPLE SHIELD WITH AL-MESH AND BASALT FIBER WOVEN
Bin Jia, Harbin Institute of Technology, China

IAC-12.A6.3.14
RESEARCH OF PERFORMANCE ABOUT CERAMIC COATING ON ALUMINUM BUMPER TO RESIST HYPERVELOCITY IMPACT
Gongshun Guan, Harbin Institute of Technology, China

IAC-12.A6.3.16
AN OPTIMIZATION METHOD OF BALLISTIC LIMIT EQUATIONS VIA CORRECTING THE VELOCITY REGIONS
Guanghui Jia, Beihang University, China

IAC-12.A6.3.17
PIPES VULNERABILITY UNDER MMOD HYPERVELOCITY OFF-CENTERED IMPACT
Guanghui Jia, Beihang University, China

IAC-12.A6.3.18
AN INVESTIGATION ON CAPABILITY OF METAL MESH/PLATE MULTI-SHOCK SHIELD TO RESIST HYPERVELOCITY IMPACT
Gongshun Guan, Harbin Institute of Technology, China

A6.4. Mitigation and Standards

October 3 2012, 10:15 — TS02 (Centauri, Hall 2)

Chairs: *Fernand Alby, Centre National d'Etudes Spatiales (CNES), France; John Hussey, Consultant, United States;*
Rapporteur: *Fabrizio Piergentili, University of Rome "La Sapienza", Italy;*

IAC-12.A6.4.1
COMPLIANCE OF DISPOSAL ORBITS WITH THE FRENCH SPACE ACT: THE GOOD PRACTICES AND THE STELA TOOL
CLEMENCE LE FEVRE, Centre National d'Etudes Spatiales (CNES), France

IAC-12.A6.4.2
EFFECTIVE SOLUTIONS FOR THE LONG TERM SUSTAINABILITY OF SPACE ACTIVITIES
Akira Kato, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A6.4.3
QUANTIFYING THE CAPACITY OF MITIGATION MEASURES TO REDUCE ORBITAL DEBRIS
Hugh G. Lewis, University of Southampton, United Kingdom

IAC-12.A6.4.4
SOLUTIONS TO REDUCE THE VULNERABILITY OF SPACE SYSTEMS TO IMPACTS OF SMALL DEBRIS PARTICLES
Claude Cougnet, EADS Astrium, France

IAC-12.A6.4.5
QUALIFICATION RESULTS OF A SAIL DEPLOYMENT MECHANISM FOR ACTIVE PREVENTION AND REDUCTION OF SPACE DEBRIS
Toshinori Kuwahara, Tohoku University, Japan

IAC-12.A6.4.6
PW-SAT – THE FIRST POLISH SATELLITE - TEST OF THE NEW CONCEPT OF DEORBITING SYSTEM
Piotr Wolanski, Warsaw University of Technology and Institute of Aviation, Poland

IAC-12.A6.4.7
ORBITAL DEBRIS MITIGATION THROUGH DEORBITING WITH PASSIVE ELECTRODYNAMIC DRAG
Denis Zanutto, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.A6.4.8
SPACE MISSION PROTECTION, IMPROVEMENTS AGAINST SPACE-DEBRIS HAZARDS
Marc Scheper, OHB System AG, Germany

IAC-12.A6.4.9
SATELLITE REENTRY PREDICTIONS FOR THE ITALIAN CIVIL PROTECTION AUTHORITIES
Luciano Anselmo, ISTI-CNR, Italy

IAC-12.A6.4.10
IMPACT OF SOLAR FLUX MODELING ON SATELLITE LIFETIME PREDICTIONS
Vitali Braun, Technische Universität Braunschweig, Germany

IAC-12.A6.4.11
COLLISION AVOIDANCE MANEUVER DURING THE SATELLITE CLOSEST APPROACHES
M. Navabi, Shahid Beheshti University, GC, Iran

IAC-12.A6.4.12
SPACE DEBRIS MITIGATION: AN INTERNATIONAL OUTLOOK
Shivain Vaidialingam, National Law University, India

IAC-12.A6.4.14
EDUSAT COMPLETELY PASSIVE DEORBITING SYSTEM
Chantal Cappelletti, Scuola di Ingegneria Aerospaziale, Italy

A6.5. Space Debris Removal Issues

October 3 2012, 15:15 — TS02 (Centauri, Hall 2)

Chairs: *Heiner Klinkrad, European Space Agency (ESA), Germany; Darren McKnight, Integrity Applications Incorporated (IAI), United States;*
Rapporteur: *Seishiro Kibe, Japan Aerospace Exploration Agency (JAXA), Japan;*

IAC-12.A6.5.1
HOW CAN WE IDENTIFY COLLIDING OBJECTS TO BE REMOVED?
Toshiya Hanada, Kyushu University, Japan

IAC-12.A6.5.2
SYSTEM ENGINEERING ANALYSIS OF DERELICT COLLISION PREVENTION OPTIONS
Darren McKnight, Integrity Applications Incorporated (IAI), United States

IAC-12.A6.5.3
COST ESTIMATION OF ACTIVE DEBRIS REMOVAL
Carsten Wiedemann, Technical University of Braunschweig, Germany

IAC-12.A6.5.4
REQUIREMENTS AND RISKS OF A SWEEPING DEVICE FOR REMOVING SMALL DEBRIS
Hugh G. Lewis, University of Southampton, United Kingdom

IAC-12.A6.5.5
COMPARISON OF ACTIVE DEBRIS REMOVAL MISSION ARCHITECTURES
Patrice Couzin, Thales Alenia Space France, France

IAC-12.A6.5.6
RESEARCH ON SIMULATION OF CAPTURING AND DETECTING SYSTEM OF SPACE DEBRIS REMOVA1 SPACECRAFT
Zhang Yu jun, China

IAC-12.A6.5.7
CAPTURE AND REMOVAL OF LARGE, SPINNING OBJECTS BY SMALL CAPTURE SYSTEMS
Markus Pietras, Technische Universität München, Germany

IAC-12.A6.5.8
ACTIVE SPACE DEBRIS REMOVAL BY HYBRID ENGINE MODULE
Luigi T. DeLuca, Politecnico di Milano, Italy

IAC-12.A6.5.9
VISION BASED NAVIGATION FOR DEBRIS REMOVAL MISSIONS
Keyvan Kanani, Astrium Satellites, France

IAC-12.A6.5.11
LIGHTFORCE: AN UPDATE ON ORBITAL COLLISION AVOIDANCE USING PHOTON PRESSURE
Jan Stupl, USRA / NASA Ames Research Center, United States

IAC-12.A6.5.12
LIFETIME AND REENTRY PREDICTIONS OF LOW EARTH ORBIT SATELLITES AND DEORBITSAIL
Andoh Michael Afful, Stellenbosch University, South Africa

IAC-12.A6.5.13
PRELIMINARY DESIGN OF A FREE-FLOATING MANIPULATOR SYSTEM FOR SPACE DEBRIS MITIGATION
Alessandro Migliaccio, Alten Sud Ouest, France

IAC-12.A6.5.14
GETTING RID OF SPACE JUNK WITH LESS DANGER
Kerry Nock, Global Aerospace Corporation, United States

IAC-12.A6.5.16
ESTIMATION OF CAPACITY OF DEBRIS COLLECTOR WITH ELECTRIC PROPULSION SYSTEM CREATION TAKING IN A COUNT ENERGY RESPONSE OF THE EXISTING LAUNCH VEHICLES
Ievgen Velykyi, Oles Honchar Dnipropetrovsk National University, Ukraine

IAC-12.A6.5.17
DEVELOPMENT OF A GRAPPLING SYSTEM FOR CAPTURING HEAVY SPACE DEBRIS
Jaime Reed, Astrium UK, United Kingdom

IAC-12.A6.5.18
THE DEVELOPMENT STATUS OF 'ROGER'
Katherine Bennell, EADS Astrium Space Transportation GmbH, Germany

IAC-12.A6.5.19
RECYCLING SPACE JUNK: RESOURCE HARVESTING AS A SOLUTION FOR ORBITAL DEBRIS
Zahra Khan, United States

IAC-12.A6.5.20
SPACE DEBRIS MITIGATION DEVICE USING DRAG THROUGH A CONTAINED FLUID TO REDUCE DEBRIS VELOCITY
Fraser Robinson, Cranfield University, United Kingdom

IAC-12.A6.5.21
DYNAMIC AND CONTROL OF FREE FLOATING RIGID FLEXIBLE COUPLING SPACE MANIPULATOR DURING CAPTURE UNCERTAIN DEBRIS
Qiuhuang Dong, Fuzhou University, China

IAC-12.A6.5.22
ROCKET BODY ROTATIONAL STATE ESTIMATION BY REMOTE OPTICAL OBSERVATIONS
Fabio Santoni, University of Rome "La Sapienza", Italy

IAC-12.A6.5.23
RECENT TECHNOLOGICAL AND RESEARCH ADVANCEMENTS IN THE FIELD OF SPACE DEBRIS- A TECHNICAL OVERVIEW
Aditya Sri Naga Divakarla, University of Wisconsin, United States

IAC-12.A6.5.24
FUNCTIONALIST APPROACH TO MITIGATION OF SPACE DEBRIS
Raghav Shukul, National Law University, India

IAC-12.A6.5.25
THE DEVELOPMENT OF AUTONOMOUS ONBOARD SYSTEMS FOR THE CONTROLLED DEORBITING OF STAGES SEPARATING PARTS OF SPACE LAUNCH VEHICLE
Valeriy Trushlyakov, Omsk State Technical University, Russia

IAC-12.A6.5.26
SPACE DEBRIS REMOVAL
Prachee Priyadarshinee, India

IAC-12.A6.5.27
SPACE DEBRIS REMOVAL USING A SELF-INFLATING ADAPTIVE MEMBRANE
Thomas Sinn, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.A6.5.28
A NOVEL APPROACH FOR ACTIVE DEBRIS REMOVAL – PERSPECTIVES FROM THE NEXT SPACE GENERATION
Minoo Rathnasabapathy, Space Generation Advisory Council (SGAC), Australia

IAC-12.A6.5.29
SPACE DEBRIS MITIGATION USING ON-ORBIT SERVICING SOLUTIONS
Peter Hofmann, Kayser-Threde GmbH, Germany

A6.6. Political, Economic and Institutional Aspects of Space Debris Mitigation and Removal (Joint with Space Security Committee)

October 5 2012, 09:00 — TS02 (Centauri, Hall 2)

Chairs: *Kazuto Suzuki, Hokkaido University, Japan; Michael Yakovlev, Central Research Institute of Machine Building (FSUE/TSNIIMASH), Russia;*
Rapporteur: *Charlotte Mathieu, European Space Agency (ESA), France;*

IAC-12.A6.6.1
ACTIVE DEBRIS REMOVAL: A MULTINATIONAL POLICY OPTION
Philipp Maier, Space Generation Advisory Council (SGAC), Germany

IAC-12.A6.6.2
LEGAL AND TECHNICAL ISSUES OF SPACE DEBRIS REMOVAL
Aditya Sharma, National Law University, India

IAC-12.A6.6.3
INVESTIGATION OF NATIONAL POLICY SHIFTS TO IMPACT ORBITAL DEBRIS ENVIRONMENTS
Thomas Percy, University of Alabama in Huntsville, United States

IAC-12.A6.6.4
STRATEGIC RECOMMENDATIONS TO REDUCE THE THREAT OF SPACE DEBRIS (INDIA PERSPECTIVE)
Rushi Ghadawala, Aryavarta Space Organization, India

IAC-12.A6.6.5
COMMERCIAL ON-ORBIT SATELLITE SERVICING AND ACTIVE DEBRIS REMOVAL: POLICY CONSIDERATIONS RAISED BY INDUSTRY PLANS
Alanna Krolikowski, University of Toronto, Canada

IAC-12.A6.6.6
SOME LEGAL AND REGULATORY CONSTRAINTS ON THE CONDUCT OF ACTIVE DEBRIS REMOVAL AND ON-ORBIT SATELLITE SERVICING
Ram S. Jakhu, McGill University, Canada

IAC-12.A6.6.7
AFFORDABLE DEBRIS REMOVAL AND COLLECTION IN LEO
Jerome Pearson, Star Technology and Research, Inc., United States

IAC-12.A6.6.8
ISU TEAM PROJECT: SPACE DEBRIS MITIGATION AND REMOVAL
Maarten Adriaensen, European Space Agency (ESA), Belgium

IAC-12.A6.6.9
TOWARDS A EUROPEAN COLLISION WARNING AND AVOIDANCE CENTRE
Burak Yaglioglu, TUBITAK Uzay, Space Technologies Research Institute, Turkey

IAC-12.A6.6.10
A NON-TECHNICAL SOLUTION TO THE SPACE DEBRIS ISSUE.
Aditya Sri Naga Divakarla, University of Wisconsin, United States

IAC-12.A6.6.11
DATA INTEGRITY IN ORBITAL DATA FUSION
David Vallado, Center for Space Standards and Innovation, United States

A6.7. Space Debris Removal Concepts

October 5 2012, 14:00 — TS04 (Antares, Hall 2)

Chairs: *Nicholas L. Johnson, National Aeronautics and Space Administration (NASA), United States; Christophe Bonnal, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Martin Rudolph, Fraunhofer EMI, Germany;*

IAC-12.A6.7.1
ACTIVE DEBRIS REMOVAL : CURRENT STATUS OF ACTIVITIES IN CNES
Christophe Bonnal, Centre National d'Etudes Spatiales (CNES), France

IAC-12.A6.7.2
TRADE-OFF ON DIFFERENT CONCEPTS AND TECHNOLOGIES FOR ORBITAL CAPTURE AND FIXATION OF HEAVY DEBRIS
Alessandro Chiesa, Aviospace, Italy

IAC-12.A6.7.3
NOMAD: A CONTACTLESS TECHNIQUE FOR ACTIVE LARGE DEBRIS REMOVAL
Steeve Kowaltschek, European Space Agency (ESA), The Netherlands

IAC-12.A6.7.4
ASTRIUM VISION ON SPACE DEBRIS REMOVAL
Xavier CLERC, Astrium Space Transportation, France

IAC-12.A6.7.5
FASTSAT ORBITAL DEBRIS REMOVAL MISSION - AN AFFORDABLE, SCALABLE AND RESPONSIVE FLIGHT DEMONSTRATION
Steve Cook, Dynetics, United States

IAC-12.A6.7.6
ACTIVE REMOVAL OF SMALL ORBITAL DEBRIS USING LASER SYSTEMS IN SPACE
Richard L. Fork, University of Alabama in Huntsville, United States

IAC-12.A6.7.7
THE DEBRITOR: AN "OFF THE SHELF" BASED MULTIMISSION VEHICLE FOR LARGE SPACE DEBRIS REMOVAL
Bernard GERBER, EADS Astrium Satellites, France

IAC-12.A6.7.8
ACTIVE DEBRIS REMOVAL BY A SMALL SATELLITE
Satomi Kawamoto, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.A6.7.9
SPACE DEBRIS REMOVAL FROM LOWER EARTH ORBIT AND GEOSYNCHRONOUS EARTH ORBIT USING ELECTRODYNAMIC TETHERS AND VASIMR TECHNOLOGY
Sagar Satpathy, SRM University, Chennai, India

IAC-12.A6.7.10
A REORBITER FOR LARGE GEO DEBRIS OBJECTS USING ION BEAM IRRADIATION
Shoji Kitamura, Japan Aerospace Exploration Agency (JAXA), Japan

B1. EARTH OBSERVATION SYMPOSIUM

Coordinator: *John Hussey, Consultant, United States; Pierre Ranzoli, Eumetsat, Germany;*

B1.1. International Cooperation in Earth Observation Missions

October 2 2012, 10:15 — TS03 (Altair, Hall 2)

Chairs: *John Hussey, Consultant, United States; Pierre Ranzoli, Eumetsat, Germany;*
Rapporteur: *David Brent Smith, National Oceanic and Atmospheric Administration (NOAA), United States;*

IAC-12.B1.1.1
SYMPOSIUM KEYNOTE: MONITORING WEATHER AND CLIMATE FROM THE GEOSTATIONARY ORBIT: THE METEOSAT THIRD GENERATION (MTG) PROGRAMME
Sergio Rota, Eumetsat, Germany

IAC-12.B1.1.2
INVITED PAPER: CEOS 2012 UPDATE
David Brent Smith, National Oceanic and Atmospheric Administration (NOAA), United States

IAC-12.B1.1.3
ASSESSING THE WAVES AND OCEAN SURFACE WIND PROPERTIES: THE CFOSAT PROJECT
Castillan Patrick, Centre National d'Etudes Spatiales (CNES), France

IAC-12.B1.1.4
DESIGN CONCEPT AND ARCHITECTURE OF MUSIS – CIL: A COMMON INTEROPERABILITY LAYER FEDERATING THE OPTICAL SPACE SYSTEM CSO AND THE RADAR IMAGING SYSTEM CSG.
Davide Di Domizio, Italian Ministry of Defense, Italy

IAC-12.B1.1.5
INTRODUCTION TO FORMOSAT-7 MISSION
Chung-Huei Chu, National Space Organization, Taiwan, China

IAC-12.B1.1.6
IMPLEMENTATION OF GEOSS DATA SHARING PRINCIPLES: RELATIONSHIP WITH THE REGIONAL AND NATIONAL DATA ACCESS REGIMES
Catherine Doldirina, McGill University, Canada

IAC-12.B1.1.7
CEOS WORKING GROUP ON CAPACITY BUILDING AND DATA DEMOCRACY: OPPORTUNITIES FOR COOPERATION
Tiffany Chow, Secure World Foundation, United States

IAC-12.B1.1.8
ADVANCES IN REMOTE SENSING APPLICATIONS FOR ENVIRONMENTAL MANAGEMENT IN CENTRAL AMERICA
Africa Flores Cordova, University of Alabama in Huntsville, United States

IAC-12.B1.1.9
HINDU KUSH HIMALAYAN (HKH) FOOD SECURITY: UTILIZING NASA'S EOS DATA IN THE DSSAT CROP MODEL TO RESEARCH THE POTENTIAL EFFECTS OF CLIMATE CHANGE ON FOOD SECURITY IN HKH REGION
Claire Herdy, NASA DEVELOP National Program, United States

IAC-12.B1.1.10
THE IMPORTANCE OF INTERNATIONAL COOPERATION: AN INSIGHT INTO THE EU-SOUTH AFRICA EARTH OBSERVATION INITIATIVES
Lulekwa Makapela, South Africa

IAC-12.B1.1.11
COLLABORATION IN GEO-INFORMATICS AND SPACE TECHNOLOGY DEVELOPMENT BETWEEN GISTDA AND NSPO
Pirada Techavijit, Geo-Informatics and Space Technology Development Agency (GISTDA), Thailand

B1.2. Future Earth Observation Systems

October 2 2012, 15:15 — TS03 (Altair, Hall 2)

Chairs: *Benoit Boissin, Centre National d'Etudes Spatiales (CNES), France; Gilles Corlay, EADS Sodern, France;*
Rapporteur: *Gunter Schreier, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*

IAC-12.B1.2.1
INVITED PAPER: UNITED STATES NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S JOINT POLAR SATELLITE SYSTEM
Harry A. Cikanek, National Oceanic and Atmospheric Administration (NOAA), United States

IAC-12.B1.2.2
METEOSAT THIRD GENERATION: PROGRAM OVERVIEW AND CHALLENGES
Philippe Tanguy, Thales Alenia Space France, France

IAC-12.B1.2.3
GOSAT-2 - MISSION REQUIREMENTS AND SPECIFICATIONS
Masakatsu Nakajima, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B1.2.4
GREENHOUSE GAS MONITORING MISSIONS FROM SPACE
Eric Maliet, EADS Astrium, France

IAC-12.B1.2.5
PLEIADES AND SPOT 6 AND 7: AN INNOVATIVE 4-SATELLITE CONSTELLATION FOR A BETTER SERVICE
Marc BERNARD, EADS Astrium, France

IAC-12.B1.2.6
A PERSPECTIVE ON TAIWAN'S EARTH OBSERVATION MISSIONS
Guey-Shin Chang, National Space Organization, Taiwan, China

IAC-12.B1.2.7
HIGH RESOLUTION EO MISSIONS WITH VERY LOW-FLYING SPACECRAFT
Amin Shahsavar, OHB System AG, Germany

IAC-12.B1.2.8
THE FUTURE EO ASI MISSIONS ARE BASED ON SAR AND HYPERSPECTRAL SENSORS
Fabrizio Battazza, ASI, Italy

IAC-12.B1.2.10
CHANGING THE RADAR PARADIGM - THE NOVASAR CONSTELLATION
Alex da Silva Curiel, Surrey Satellite Technology Ltd, United Kingdom

IAC-12.B1.2.11
TOPMEX-9: DISTRIBUTED SAR MISSION EMPLOYING NANOSATELLITE CLUSTER
Antonio Eduardo GUTIÉRREZ NAVA, Red de Talentos Mexicanos en Exterior, Capítulo Alemania e.V., Germany

IAC-12.B1.2.12
TOWARD HIGH RESOLUTION HIGH ALTITUDES OBSERVATION SYSTEMS FOR ENVIRONMENT & SECURITY
Xavier Roser, Thales Alenia Space France, France

IAC-12.B1.2.13
STUDY ON MIMO-SAR SYSTEM BASED ON SPACE TIME CODING AND ELEVATION DIGITAL BEAM-FORMING
Qi Wei-kong, China Academy of Space Technology (CAST), China

IAC-12.B1.2.14
CLIMATE RESEARCH FROM ISS
Marc Peter Hess, Astrium Space Transportation, Germany

IAC-12.B1.2.15
THE CONSTRUCTION AND ANALYSIS OF GUIDELINE SYSTEM FOR INNER-FORMATION FLYING SYSTEM GRAVITY FIELD MEASUREMENT
Liu Hongwei, Institute of Aerospace and Material Engineering, National University of Defense Technology, Changsha, China

IAC-12.B1.2.16
SUN-SYNCHRONOUS HIGHLY ELLIPTICAL ORBITS USING LOW-THRUST PROPULSION
Pamela Anderson, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.B1.2.17
TIDAL SYNCHRONOUS ORBIT: A NOVEL APPROACH TO REMOTE SENSING OF OCEANIC REGIONS
Christopher Lowe, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.B1.2.18
DEVELOPMENT OF SUPER LOW ALTITUDE TEST SATELLITE (SLATS)
Kazuya Konoue, Japan Aerospace Exploration Agency (JAXA), Japan

B1.3. Earth Observation Sensors and Technology

October 3 2012, 10:15 — TS03 (Altair, Hall 2)

Chairs: *Andrew Court, TNO, The Netherlands; Yean Joo Chong, National University of Singapore, Rep. Of Singapore;*
Rapporteur: *Luigi Bussolino, Bussolino and Associates, Italy;*

IAC-12.B1.3.1
FIRST IN-ORBIT PERFORMANCES OF PLEIADES HIGH RESOLUTION CNES EARTH OBSERVATION SYSTEM
Lionel Perret, Centre National d'Etudes Spatiales (CNES), France

IAC-12.B1.3.2
TROPOMI ON TRACK
Frits Teule, Dutch Space, The Netherlands

IAC-12.B1.3.3
OVERVIEW OF ZY-3 SATELLITE RESEARCH AND APPLICATION
Haiyi Cao, China Academy of Space Technology (CAST), China

IAC-12.B1.3.4
IMPROVEMENT OF THE ULTRA SENSITIVE ELECTROSTATIC ACCELEROMETER FOR THE NEXT GRAVITY SPACE MISSIONS
Bernard Foulon, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France

IAC-12.B1.3.5
A RADIATION HARDENED DIGITAL FLUXGATE MAGNETOMETER FOR SPACE APPLICATIONS
David Miles, University of Alberta, Canada

IAC-12.B1.3.6
UTILISING THE INTERNATIONAL SPACE STATION AS AN ALTERNATIVE TO SUPPORT THE REGIONAL VISUALISATION AND MONITORING SYSTEM
Samantha Shine, University of Alabama in Huntsville, United States

IAC-12.B1.3.7
STUDY ON A NEW MODIFIED-FS IMAGING ALGORITHM AND JAMMING CHARACTERISTICS FOR FMCW SAR
Wen Yu, Beijing Institute of Tracking and Telecommunication Technology, China

IAC-12.B1.3.8
A NEW AIRBORNE MULTI-MODE AND MULTI-BAND LOW FREQUENCY RADAR
Maria Rosaria Santovito, CO.RI.S.T.A., Italy

IAC-12.B1.3.9
COSMO-SKYMED SECONDA GENERAZIONE: QUAD-POL CAPABILITY
Fabio Covello, Agenzia Spaziale Italiana (ASI), Italy

IAC-12.B1.3.10
METOP SECOND GENERATION: A JOINT ESA/EUMETSAT MISSION FOR WEATHER FORECAST AND CLIMATE MONITORING WITH AN IMAGING RADIOMETER
Maria Rosaria Santovito, CO.RI.S.T.A., Italy

IAC-12.B1.3.11
THE SYSTEM DESIGN OF THE PROTOTYPE OF L-BAND APERTURE SYNTHESIS MICROWAVE RADIOMTER
Yinan Li, Xi'an Institute of Space Radio Technology, China

IAC-12.B1.3.12
ANTENNAS OPTIMIZATION FOR LOW FREQUENCY RADIO INTERFEROMETER FOR SOLAR – TERRESTRIAL INTERACTIONS AND RADIO ASTRONOMY
Tiago Bremm, Southern Regional Space Research Center - CRS/CCR/INPE - MCT in collaboration with the Space Science Laboratory of Santa Maria - LACESM/CT - UFSM, Brazil

IAC-12.B1.3.13
ANTENNA SIDELOBES EFFECT ON THE MEASUREMENT OF SPACEBORNE MICROWAVE SCATTEROMETER
LIU Li-Xia, China

IAC-12.B1.3.14
P/MS CAMERA FOR ZIYUAN-1 02C SATELLITE
Weigang Wang, China Academy of Space Technology (CAST), China

IAC-12.B1.3.15
THE FY-3A AND FY-3B EARTH RADIATION MEASUREMENTS
Duanjun Lu, Shanghai Institute of Technical Physics, Chinese Academy of Sciences, China

IAC-12.B1.3.16
ANT-2: A ROBUST 1.5U CUBESAT TELESCOPE FOR EARTH OBSERVATION
JM (Hans) Kuiper, Delft University of Technology (TU Delft), The Netherlands

IAC-12.B1.3.17
INSTRUMENT CHARACTERISTICS AND INTRODUCTION OF THE CCMR FOR THE CHINESE OCEAN OBSERVATION SATELLITE
Yanming Li, Xi'an Institute of Space Radio Technology, China

IAC-12.B1.3.18
REDUCTION REQUIREMENTS OF RESIDUAL NON-GRAVITY DISTURBANCES OF THE INNER FORMATION FLYING SYSTEM FOR EARTH GRAVITY MEASUREMENT
Zhenfeng Gu, Tsinghua University, China

B1.4. Earth Observation Data Management Systems

October 3 2012, 15:15 — TS03 (Altair, Hall 2)

Chairs: *Bruce K. Quirk, U.S. Geological Survey, United States; Carlo Ulivieri, University of Rome "La Sapienza", Italy;*
Rapporteur: *Pierre Ranzoli, Eumetsat, Germany;*

IAC-12.B1.4.1
HIGH PERFORMANCES DATA HANDLING AND TRANSMISSION SYSTEMS: THE COSMO-SKYMED SECONDA GENERAZIONE SOLUTION.
Gianni Casonato, Italian Space Agency (ASI), Italy

IAC-12.B1.4.2
COSMO-SKYMED SECONDA GENERAZIONE: SPOTLIGHT FOCUSING CHAIN IMPROVEMENTS AND INTERFEROMETRIC AND CHANGE DETECTION CAPABILITIES ENHANCEMENT THROUGH COMMON BAND FILTERING
Manfredi Porfilio, Italian Space Agency (ASI), Italy

IAC-12.B1.4.3
DATA PROCESSING SYSTEMS OF EUMETSAT'S METEOSAT THIRD GENERATION (MTG)
Fausto Roveda, Eumetsat, Germany

IAC-12.B1.4.4
SENTINEL-3 PAYLOAD DATA GROUND SEGMENT
Marc Niezette, VEGA Space, Germany

IAC-12.B1.4.5
A NEW GROUND SEGMENT FOR SMALL EARTH OBSERVATION MISSION (DEIMOS-2)
Angel Monge, Deimos Space S.L., Spain

IAC-12.B1.4.6
ACHIEVING IMPROVEMENTS IN PLANETARY TERRAIN MAPPING THROUGH NEW MATHEMATICAL MODELS
Jeanne Holm, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States

IAC-12.B1.4.7
MDA'S EARTH OBSERVATION DATA MANAGEMENT SYSTEMS
Giovanni D'Aliesio, MDA Corporation, Canada

IAC-12.B1.4.8
AN OPTIMAL MICROSATELLITE SYSTEM FOR OPTICAL REMOTE SENSING DATA MANAGEMENT
Federico Bunkheila, Sapienza University Rome, Italy

IAC-12.B1.4.9
FORMOSAT-2 DAILY MONITORING AROUND THE WORLD
An-Ming Wu, National Space Organization, Taiwan, China

IAC-12.B1.4.10
APPLICATION OF REMOTE SENSING AND GIS IN DISASTER MANAGEMENT (GUJARAT, INDIA)
Rushi Ghadawala, Aryavarta Space Organization, India

IAC-12.B1.4.11
REMOTELY-SENSED DATA MANAGEMENT SYSTEM IN NIGERIA: THE ROLE OF NATIONAL CENTRE FOR REMOTE SENSING, JOS.
OLUSOJI NESTER JOHN, National Space Research and Development Agency,Nigeria, Nigeria

IAC-12.B1.4.12
SURFACE RECOGNITION FOR EMERGENCY LANDING PURPOSES
Tomas Levora, Czech Technical University In Prague, Czech Republic

IAC-12.B1.4.13
SOLID STATE RECORDER FOR EARTH OBSERVATION SENSORS
Rodrigo Diez, Argentina

IAC-12.B1.4.14
GEOSPATIALLY DETECTING SACCHARUM SPONTANEUM: AN INVASION OF THE PANAMA CANAL WATERSHED
Casey Calamaio, University of Alabama in Huntsville, United States

IAC-12.B1.4.15
HIGH DATA RATE MODULATOR IN 8GHZ SATELLITE TRANSMISSION SYSTEM
Fitri Dewi Jaswar, Astronautic Technology SDN BHD, Malaysia

IAC-12.B1.4.16
COMMUNITY REMOTE SENSING FOR MAXIMUM SPATIAL DATA INTERACTION
Medinah Zubairu, Nigeria

B1.5. Earth Observation Applications and Economic Benefits

October 4 2012, 15:15 — TS03 (Altair, Hall 2)

Chairs: *Luigi Bussolino, Bussolino and Associates, Italy; Paul Kamoun, Thales Alenia Space France, France;*
Rapporteur: *Yean Joo Chong, National University of Singapore, Rep. Of Singapore;*

IAC-12.B1.5.1
NEAR REAL TIME SHIP DETECTION SERVICE
Egbert Schwarz, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B1.5.2
SOUTHERN CALIFORNIA COASTAL POLLUTION HAZARDS: UTILIZING SATELLITE SYNTHETIC APERTURE RADAR TO MONITOR STORMWATER PLUMES FOR WATER RESOURCE APPLICATIONS
Katrina Laygo, NASA DEVELOP National Program, United States

IAC-12.B1.5.3
DEVELOPMENT OF REMOTE SENSING AND GIS BASED PREDICTIVE MODEL FOR DESERTIFICATION EARLY WARNING
Seidu Mohammed, Nigeria

IAC-12.B1.5.4
THE APPLICATION OF REMOTE SENSING AND GIS TO STUDY THE EFFECT OF URBAN ENCHROACHMENT ON THE JOS CURLY CREEK
JOY AGENE, National Space Research and Development Agency, Abuja, Nigeria, Nigeria

IAC-12.B1.5.5
REGIONAL STUDY OF SEA SURFACE TEMPERATURE, CHLOROPHYLL AND AEROSOL CONCENTRATION IN THE NORTH ATLANTIC OCEAN USING MODIS DATA
Ricardo Topham, International Space University (ISU), France

IAC-12.B1.5.6
REMOTE SENSING THE ENVIRONMENTAL EFFECTS OF REFORESTATION: MULTI- AND HYPERSPECTRAL TEMPORAL ANALYSIS FOR PUNJAB, INDIA
Melanie Phillips, University of Alabama in Huntsville, United States

IAC-12.B1.5.7
OBJECT-BASED IMAGE ANALYSIS OF SATELLITE IMAGERY FOR POPULATION ESTIMATION IN INFORMAL SETTLEMENT KIBERA (NAIROBI, KENYA)
Krištof Oštir, SPACE-SI, Slovenia

IAC-12.B1.5.8
DESERT MOVEMENT PREDICTOR AND FORMA-BOOTHS: TWO EARTH OBSERVATION BASED APPLICATIONS FOR PAN-AFRICAN DEVELOPMENT
Stavros Georgakas, International Space University (ISU), France

IAC-12.B1.5.9
ALABAMA DISASTERS: LEVERAGING NASA EOS TO EXPLORE THE ENVIRONMENTAL AND ECONOMIC IMPACT OF THE APRIL 27 TORNADO OUTBREAK IN ALABAMA
Claire Herdy, NASA DEVELOP National Program, United States

IAC-12.B1.5.10
THE GRACE SATELLITES DETECT RECENT EXTREME CLIMATE EVENTS IN CHINA
Jingshi Tang, Nanjing University, China

IAC-12.B1.5.11
MEASURING THE NILE AND THE AMAZON RIVERS THROUGH SATELLITE REMOTE SENSING
Paulo Roberto Martini, National Institute for Space Research - INPE, Brazil

IAC-12.B1.5.12
COSMO-SKYMED BACKGROUND MISSION: OVERVIEW, OBJECTIVES AND RESULTS
Maria Libera Battagliere, Italian Space Agency (ASI), Italy

IAC-12.B1.5.13
ASI EARTH OBSERVATION FOR EUROPE. A PROJECT FOR INVESTIGATING THE CONSISTENCY OF THE ITALIAN SPACE AGENCY EO RESOURCES WITH THE INSPIRE DIRECTIVE AND THE POTENTIAL BENEFITS FROM ADOPTING AN INSPIRE COMPLIANT DATA POLICY
Salvatore Pignataro, Italian Space Agency (ASI), Italy

IAC-12.B1.5.14
SPACE BORNE SAR OBSERVATIONS OF OCEANIC INTERNAL WAVES
Rajasekhar M, Indian Space Research Organisation (ISRO), SDSC SHAR, Astronautical Society of India, India

B1.6. Dual Use Earth Observation

October 5 2012, 09:00 — TS03 (Altair, Hall 2)

Chairs: *Jan Kolar, Czech Space Office, Czech Republic; Denis J.P. Moura, European Defence Agency, Belgium;*
Rapporteur: *David Brent Smith, National Oceanic and Atmospheric Administration (NOAA), United States;*

IAC-12.B1.6.1
CIVIL AND MILITARY SYNERGIES: NEW OPPORTUNITIES AND CHALLENGES FOR EUROPEAN EARTH OBSERVATION MISSIONS
Nunzia Maria Paradiso, European Space Policy Institute (ESPI), Austria

IAC-12.B1.6.2
EUROPEAN CIVIL-MILITARY SYNERGIES IN THE FIELD OF EARTH OBSERVATION
Denis J.P. Moura, European Defence Agency, Belgium

IAC-12.B1.6.3
CONTRIBUTION OF EARTH OBSERVATION SATELLITES AND SERVICES TO SECURITY MISSIONS: LESSONS LEARNT FROM LATEST EUROPEAN STUDIES
Gil DENIS, Astrium SAS France, France

IAC-12.B1.6.4
REFLECTIONS ON EARTH OBSERVATION FOR CIVIL SECURITY IN EUROPE
Antonio Ciccolella, European Space Agency (ESA), Italy

IAC-12.B1.6.5
A DUAL COORDINATED DATA ACCESS TO GMES-SECURITY SYSTEM OF SYSTEMS
Julia Yagüe, GMV Aerospace & Defence SAU, Spain

IAC-12.B1.6.6
THE DUAL ROLE OF NIGERIAS EARTH OBSERVATION SATELLITES AS IT RELATES TO HEALTH AND MILITARY CAMPAIGNS
Olojo Olabamiji, NASRDA, Nigeria

IAC-12.B1.6.7
OVERVIEW AND EXPLOITATION OF THE FULLY DEPLOYED COSMO-SKYMED CONSTELLATION
Fabio Covello, Agenzia Spaziale Italiana (ASI), Italy

IAC-12.B1.6.8
COSMO-SKYMED SECONDA GENERAZIONE DEVELOPMENT STATUS AND PROSPECTS RELEVANT TO INTEROPERABILITY, EXPANDABILITY AND MULTI MISSION/MULTI SENSOR CAPABILITIES
Gianni Casonato, Italian Space Agency (ASI), Italy

IAC-12.B1.6.9
EARTH OBSERVATION WITH MEO TRANSMITTERS AND UAS RECEIVERS: A POTENTIAL IMPLEMENTATION FOR FUTURE GALILEO UPGRADES
Marco D'Errico, Seconda Universita' di Napoli, Italy

IAC-12.B1.6.10
DUAL USE MISSION SUPPORT FROM COMMERCIAL GROUND STATIONS
Borre Pedersen, Kongsberg Satellite Services AS, Norway

B2. SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM

Coordinator: *Joe M. Straus, The Aerospace Corporation, United States; Otto Koudelka, Graz University of Technology (TU Graz), Austria;*

B2.1. Near-Earth and Interplanetary Communications

October 1 2012, 15:15 — TS13 (Panarea, Palacongressi)

Chairs: *Manfred Wittig, European Space Agency (ESA) retired, The Netherlands; Ramon P. De Paula, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *A. Bhaskaranarayana, Indian Space Researh Organisation, India;*

IAC-12.B2.1.1
CONFIGURATION AND MONITORING ACROSS DELAY-TOLERANT LINKS: ROBUST MANAGEMENT OF SPACE INTERNETWORKS
Edward Birrane, The Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.B2.1.2
NETWORK DEPLOYMENT AND MANAGEMENT OF DISRUPTION-TOLERANT NETWORKS
Bin Chen, CSSAR/CAS, China

IAC-12.B2.1.3
SPACE DATA ROUTERS FOR THE EXPLOITATION OF SPACE DATA
Andrew Williams, VEGA Space GmbH, Germany

IAC-12.B2.1.4
UPLINK AND DOWNLINK ELECTRONICS UPGRADES FOR THE NASA DEEP SPACE NETWORK APERTURE ENHANCEMENT PROJECT (DAEP)
Remi LaBelle, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States

IAC-12.B2.1.5
INTERSTELLAR COMMUNICATION TECHNIQUES FOR LONG RANGE MISSION SPACECRAFT
Ugur Guven, Turkey

IAC-12.B2.1.6
TELECOMMUNICATION SYSTEM SPECIFIC TO HIGH TEMPERATURE ENVIRONMENT FOR JAXA MERCURY EXPLORATION PROGRAM
Tomoaki Toda, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B2.1.7
VARIABILITY OF THE VERTICAL EXTENT OF IONOSPHERIC E-LAYER OVER A STATION WITHIN EQUATORIAL ANOMALY REGION
Oladipo Emmanuel Abe, Federal government of Nigera, Nigeria

IAC-12.B2.1.8
STATISTICAL RISK ESTIMATION FOR COMMUNICATION SYSTEMS DESIGN: DEVELOPMENT OF AN OPTIMIZATION FRAMEWORK
Alessandra Babuscia, Massachusetts Institute of Technology (MIT), United States

IAC-12.B2.1.9
CARRIER TRACKING SYSTEM DESIGN FOR LEO SATELLITE ON BOARD COMMAND RECEIVERS
Khwaja Bilal Jillani, Pakistan Space and Upper Atmosphere Research Commission, Pakistan

IAC-12.B2.1.10
ASTRA: INTERDISCIPLINARY STUDY ON ENHANCEMENT OF THE END-TO-END ACCURACY FOR SPACECRAFT TRACKING TECHNIQUES
Mauro Di Benedetto, Sapienza Università di Roma, Italy

IAC-12.B2.1.11
THE IXV GROUND SEGMENT – ARCHITECTURAL AND OPERATIONAL DEVELOPMENT
Alessandro Bellomo, Altec S.p.A., Italy

IAC-12.B2.1.12
A CREATIVE ARCHITECTURE FOR MASS-SENSITIVE TRANSPONDER
Zhugang Wang, National Space Science Center (NSSC), China

IAC-12.B2.1.13
A UNIFIED DESIGN OF THE RANGING AND TELEMETRY IN SPACE EXPLORATION
Liming Hou, Beijing Institute of Tracking and Telecommunication Technology, China

IAC-12.B2.1.14
IMPERFECTION OF RF CHANNEL AND THEIR EFFECTS ON BER PERFORMANCE OF SATELLITE COMMUNICATION
Wang Hongfeng, Shijiazhuang mechanical engineering college, China

IAC-12.B2.1.15
A GEO-ISL BASED TC&R PLAN FOR LEO COMMUNICATION CONSTELLATION SYSTEM
Tong Yang, China Academy of Space Technology (CAST), China

B2.2. Advanced Technologies

October 2 2012, 10:15 — TS13 (Panarea, Palacongressi)

Chairs: *Edward W. Ashford, Ashford Aerospace Consulting, United States; M.G. Chandrasekhar, Devas Multimedia Pvt. Ltd., United States;*
Rapporteur: *Elemer Bertenyi, E. Bertenyi & Associates Inc., Canada;*

IAC-12.B2.2.1
PERFORMANCE ENHANCEMENTS FOR NANOSATELLITE COMMUNICATION SYSTEMS BASED ON THE BRITE-AUSTRIA MISSION
Manuela Unterberger, Graz University of Technology (TU Graz), Austria

IAC-12.B2.2.3
ADAPTIVE OPTICS AND BEAM STEERING REQUIREMENTS IN FREE-SPACE OPTICAL COMMUNICATIONS
Kevin Shortt, Canadian Space Society, Canada

IAC-12.B2.2.4
ACTIVE ELECTRONICALLY STEERABLE PHASED ARRAYS FOR MOBILE SATELLITE COMMUNICATIONS
Ferdinando Tiezzi, JAST SA, Switzerland

IAC-12.B2.2.5
SPACE COMMUNICATIONS AND NAVIGATION (SCAN) TESTBED SOFTWARE DEVELOPMENT AND LESSONS LEARNED
Thomas Hartline, NASA Glenn Research Center, United States

IAC-12.B2.2.6
MEASUREMENT EXPERIMENT AND EVALUATION OF RADIATION PATTERNS OF THE MESH REFLECTOR ANTENNA MOUNTED ON COMMUNICATION SATELLITE FOR HYBRID MOBILE COMMUNICATION SYSTEM
Teruaki Orikasa, National Institute of Information and Communications Technology, Japan

IAC-12.B2.2.7
APPLIED EARTH-BASED ORBIT DETERMINATION FOR THE SPACECRAFT
Tsutomu Ichikawa, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B2.2.8
DEVELOPED OF A TRANSPORT PROTOCOL GROUND-TO-SATELLITE LASER COMMUNICATIONS BASED ON UDP
Hideki Takenaka, National Institute of Information and Communications Technology, Japan

IAC-12.B2.2.9
ROBUSTNESS STUDY OF NON-DIMENSIONAL STAR PATTERN RECOGNITION FOR A TYPICAL STAR TRACKER
Shabnam Yazdani, K. N. Toosi University of Technology, Iran

IAC-12.B2.2.10
INVESTIGATION ON MAGNETRON CAVITY APPLIED IN RUBIDIUM ATOMIC CLOCK
Cui Jingzhong, China Academy of Space Technology (CAST), China

IAC-12.B2.2.11
A POWER AND SPECTRAL EFFICIENT MODULATION ROBUST TO PHASE NOISE
ZHANG JIAN, China

IAC-12.B2.2.12
RELATIVE NAVIGATION SENSOR SYSTEMS FOR NEAR EARTH ASTEROIDS AND OTHER CHALLENGING MISSION ENVIRONMENTS
Kevin Miller, Ball Aerospace & Technologies Corp., United States

IAC-12.B2.2.13
LOW TEMPERATURE CO-FIRED CERAMICS TECHNOLOGIES FOR COMMUNICATION SATELLITES APPLICATION
Chen XiaoQun, Institute of Communication Satellite,China Academy of Space Technology, China

IAC-12.B2.2.16
EFFECTS OF FREQUENCY-DIFFERENCE BETWEEN TWO SPACECRAFTS ON SAME BEAM INTERFEROMETRY PRECISION
Huicui Liu, Science and technology on aerospace flight dynamics laboratory, China

IAC-12.B2.2.17
AUTONOMOUS INTEGRATED NAVIGATION USING X-RAY PULSARS AND ASTEROIDS
Chengwei Yang, Center for Space Science and Applied Research, Chinese Academy of Sciences, China

B2.3. Advanced Systems

October 3 2012, 10:15 — TS13 (Panarea, Palacongressi)

Chairs: *Robert Prevaux, Space Systems/Loral, United States; Morio Toyoshima, National Institute of Information and Communications Technology, Japan;*
Rapporteur: *Amane Miura, National Institute of Information and Communications Technology, Japan*

IAC-12.B2.3.1
HIGH-SPEED DOWNLINK COMMUNICATIONS WITH HUNDREDS MBPS FROM 50KG CLASS SMALL SATELLITES
Hirobumi Saito, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B2.3.2
RECONFIGURABLE ANTENNA DESIGN FOR NANO-SATELLITES
Haider Ali, Politecnico di Torino, Italy

IAC-12.B2.3.3
DESIGN & DEVELOPMENT OF THE TELECOMMUNICATIONS SUBSYSTEM FOR ARAMIS NANOSATELLITES
Haider Ali, Politecnico di Torino, Italy

IAC-12.B2.3.4
ANTARCTIC BROADBAND: FAST INTERNET FOR THE BOTTOM OF THE EARTH
Grant Bonin, Space Flight Laboratory, University of Toronto, Canada

IAC-12.B2.3.5
ANTENNA SYSTEM DESIGN FOR OLFAR'S INTER-SATELLITE LINK
Alex Budianu, University of Twente, The Netherlands

IAC-12.B2.3.6
GLOBAL IN-FLIGHT INTERNET SERVICE - A PROPOSAL FOR A SATELLITE MISSION
Norbert Frischauf, JRC-IE, The Netherlands

IAC-12.B2.3.7
DEVELOPMENT AND VALIDATION OF ADVANCED BROADBAND SATELLITE COMMUNICATIONS SYSTEMS AND APPLICATIONS
Francesco Zampognaro, University of Rome - Tor Vergata, Italy

IAC-12.B2.3.8
ESA DDOR ENHANCEMENT: AGENCIES INTEROPERABILITY, WIDEBAND AND LOW-SNR FUNCTIONALITY
Francesco Barbaglio, Sapienza Università di Roma, Italy

IAC-12.B2.3.10
NEW DESIGN OF AN ANTENNA COUPLER
Mahmoud Samkan, Iran

IAC-12.B2.3.11
THE FLIGHT EXPERIENCE OF DFH-4 COMMERCIAL SATELLITES
Heng Deng, China Academy of Space Technology (CAST), China

IAC-12.B2.3.12
STUDY ON THE CONFIGURATION DESIGN OF A NOVEL PUBLIC SPACECRAFT'S PLATFORM
Hongyan Xu, China Academy of Space Technology (CAST), China

IAC-12.B2.3.13
APPLICATION OF TIME FREQUENCY TECHNOLOGY TO FAULT DIAGNOSIS OF ANTENNAS ON VESSEL
Bing Liu, China

B2.4. Fixed and Broadcast Communications

October 4 2012, 10:15 — TS13 (Panarea, Palacongressi)

Chairs: *Otto Koudelka, Graz University of Technology (TU Graz), Austria; Desaraju Venugopal, Devas Multimedia Pvt. Ltd., India;*
Rapporteur: *Moon-Beom Heo, Korea Aerospace Research Institute, Korea, Republic of;*

IAC-12.B2.4.1
PERFORMANCE OF NEW RADIO BROADCAST SATELLITE
Robert D. Briskman, Sirius XM Radio, United States

IAC-12.B2.4.2
INTEGRATED KA AND L/S BAND PLATFORM FOR FIXED AND MOBILE SATELLITE SERVICES
Venugopal Desaraju, Devas Multimedia Pvt. Ltd., India

IAC-12.B2.4.3
ECONOMIC EFFECT OF SATELLITE COMMUNICATIONS BASED ON THE GREAT EAST JAPAN EARTHQUAKE
Morio Toyoshima, National Institute of Information and Communications Technology, Japan

IAC-12.B2.4.4
HIGH-SPEED SATELLITE COMMUNICATIONS EXPERIMENTS FOR 622/1244 MBPS
Akira Akaishi, National Institute of Information and Communications Technology, Japan

IAC-12.B2.4.5
CONCEPTUAL APPROACH OF A TRACKING STRATEGY FOR RAIN MEASUREMENTS WITH LARGE ANTENNAS IN KA-BAND
Hendrik Enke, LSE Space GmbH, Germany

IAC-12.B2.4.6
END-TO-END MEASUREMENT ENVIRONMENT FOR AN ELECTRICAL STEERABLE KA-BAND INTER-SATELLITE LINK ANTENNA
Jürgen Letschnik, LSE Space GmbH, Germany

IAC-12.B2.4.7
LOCATION-AWARE CHANNEL ESTIMATION FOR CAPACITY GAINS ON MIMO SATELLITE LINKS
Michael Bergmann, Graz University of Technology (TU Graz), Austria

IAC-12.B2.4.8
THE VEGA TELEMETRY SYSTEM
Michel Dupas, Dassault Aviation, France

IAC-12.B2.4.9
STATUS AND FUTURE OPPORTUNITIES FOR ANDØYA GROUND STATION
Stian Vik Mathisen, NAROM - Norwegian Centre for Space-Related Education, Norway

IAC-12.B2.4.10
CHINESE DFH-4 PLATFORM PRODUCT LINE IMPROVEMENT
Min Wang, China Academy of Space Technology (CAST), China

IAC-12.B2.4.11
INTERFERENCE SIMULATION FOR THE SATELLITE ANTENNA REFLECTORS
Yongxuan Xiao, China Academy of Space Technology (CAST), China

IAC-12.B2.4.12
RESEARCH ON THE SYSTEM PERFORMANCE OF BROADBAND MULTIMEDIA SATELLITE COMMUNICATION SYSTEM ADOPTING DIFFERENT ON-BOARD SWITCHING
Ying Tao, China Academy of Space Technology (CAST), China

IAC-12.B2.4.13
DEVELOPMENT OF AN AUTOMATIC RF TEST BENCH FOR COMMUNICATION SATELLITES
Qiang Ma, China Academy of Space Technology (CAST), China

B2.5. Mobile Satellite Communications and Navigation Technology

October 4 2012, 15:15 — TS13 (Panarea, Palacongressi)

Chairs: *Robert D. Briskman, Sirius XM Radio, United States; Jean-Paul Aguttes, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Kevin Shortt, Canadian Space Society, Canada;*

IAC-12.B2.5.1
IRIS: SETTING THE STANDARD FOR FUTURE AIR TRAFFIC MANAGEMENT COMMUNICATIONS VIA SATELLITE
Nathalie RICARD, European Space Agency (ESA), The Netherlands

IAC-12.B2.5.2
COMMUNICATION SCHEMES FOR OLFAR'S INTER-SATELLITE LINKS
Alex Budianu, University of Twente, The Netherlands

IAC-12.B2.5.3
CHALLENGES AND ASSESSMENTS RELATED TO THE IMPLEMENTATION OF MSS-ATC POLICY
Vasilis Zervos, International Space University (ISU), France

IAC-12.B2.5.4
A COLLISION FREE SATELLITE AIS MISSION
Manfred Wittig, European Space Agency (ESA) retired, The Netherlands

IAC-12.B2.5.5
MONITORING ADS-B SIGNALS FROM SPACE
Otto Koudelka, Graz University of Technology (TU Graz), Austria

IAC-12.B2.5.6
INTERFERENCE CALCULATION METHODOLOGY AND ANALYSIS ON SATELLITE UPLINK IN SATELLITE-TERRESTRIAL INTEGRATED MOBILE COMMUNICATIONS SYSTEM
Amane Miura, National Institute of Information and Communications Technology, Japan

IAC-12.B2.5.7
DESIGN AND REALIZATION OF TM11 WAVEGUIDE MODE COUPLER
Adil Masoud Qureshi, SUPARCO, Pakistan

IAC-12.B2.5.8
LESSONS LEARNED FROM MOBILE SATCOM PROPAGATION MEASUREMENT CAMPAIGNS AT C, S, AND K-BAND
Franz Teschl, Joanneum Research, Austria

IAC-12.B2.5.9
ADDITIONAL OPPORTUNITIES FOR CARRYING OUT OF SHORT TERM EXPERIMENTS ON SOYUZ ORBITAL STAGES: COMMUNICATION AND NAVIGATION PROBLEMS
Igor V. Belokonov, Samara State Aerospace University, Russia

IAC-12.B2.5.11
MIMO TECHNIQUE APPLICATIONS IN SATELLITE COMMUNICATION SYSTEMS
Wang Xiaoting, Beijing Institute of Tracking and Telecommunication Technology, China

IAC-12.B2.5.12
RESEARCH ON THE CEI SYSTEM IN GEO SATELLITE OBSERVATION
Li Li, National Key Laboratory of Science and Technology on Aerospace Flight Dynamics, China

IAC-12.B2.5.13
GEO DETERMINATION PRECISION ANALYSIS OF COMPASS INTEGRATED WITH GPS
Weihua Ma, Northwestern Polytechnical University, China

IAC-12.B2.5.14
RESEARCH ON EFFECT OF EXCITATION COEFFICIENT ERROR ON THE PERFORMANCE OF MULTIPLE-BEAM REFLECTOR ANTENNAS
Yong XUE, China Academy of Space Technology (CAST), China

IAC-12.B2.5.15
LAND MOBILE SATELLITE CHANNEL EFFECTS OF INDIVIDUAL SCATTERS AND REFLECTORS IN VARIOUS ENVIRONMENTS AT 11.7 AND 17.6 GHZ
Franz Teschl, Joanneum Research, Austria

B2.6. Space-Based Navigation Systems and Services

October 5 2012, 09:00 — TS05 (Betelgeus, Hall 2)

Chairs: *Rita Lollock, The Aerospace Corporation, United States; Cédric Balty, Thales Alenia Space France, France;*
Rapporteur: *Dipak Srinivasan, The Johns Hopkins University Applied Physics Laboratory, United States;*

IAC-12.B2.6.1
ATOMIC CLOCKS CONTINUOUS DEVELOPMENT IN SELEX GALILEO FOR NAVIGATION SATELLITE SYSTEMS.
Marco Belloni, Selex Galileo, Italy

IAC-12.B2.6.2
ENHANCED COEFFICIENT BASED IONOSPHERE ALGORITHM FOR INDIAN REGIONAL NAVIGATION SATELLITE SYSTEM (IRNSS)
Rethika Tamilselvan, ISRO Satellite Centre (ISAC), India

IAC-12.B2.6.3
ETRUSCO-2 @ SCF_LAB: AN ASI-INFN PROJECT OF DEVELOPMENT AND THERMAL-OPTICAL-VACUUM TEST OF GNSS LASER RETROREFLECTOR ARRAYS
Claudio Cantone, Istituto Nazionale di Fisica Nucleare (INFN), Italy

IAC-12.B2.6.4
FURTHER APPROACH TO THE GNSS LOCALIZATION ACCURACY ESTIMATION WITH RESPECT TO THE NAVIGATED OBJECT EARTH POSITION AND THE SEASON PERIOD ADVISEMENT
Michal Hodon, University, Slovak Republic

IAC-12.B2.6.5
IMPROVED ORBIT DETERMINATION ACCURACY OF IRNSS SATELLITE USING COMBINED FILTER SMOOTHER METHOD
BABU RAJARAM, ISRO Satellite Centre (ISAC), India

IAC-12.B2.6.6
GNSS RELIABILITY TESTING IN SIGNAL-DEGRADED SCENARIO
Salvatore Gaglione, University of Naples "Parthenope", Italy

IAC-12.B2.6.7
EFFICIENT PRODUCTION ENGINEERING FOR THE MANUFACTURE OF GALILEO PAYLOADS
Philip Davies, Surrey Satellite Technology Ltd, United Kingdom

IAC-12.B2.6.8
IN-ORBIT AUTONOMOUS NAVIGATION SYSTEM BASED ON ATTITUDE SENSORS
Woosung Park, Inha Univ., Korea, Republic of

IAC-12.B2.6.9
USING PULSATING SOURCES FOR DEFINING A RELATIVISTIC SPACE-BASED NAVIGATION SYSTEM
Matteo Luca Ruggiero, Politecnico di Torino, Italy

IAC-12.B2.6.10
MATCH FILTERING APPROACH FOR SIGNAL ACQUISITION IN RADIO-PULSAR NAVIGATION
Mark Bentum, University of Twente, The Netherlands

IAC-12.B2.6.11
INDOOR MESSAGING SYSTEM
Susumu Yoshitomi, Japan Space Forum, Japan

IAC-12.B2.6.12
AUTONOMOUS NAVIGATION FOR HEO SATELLITES BASED ON SINS/GNSS TIGHT INTEGRATION METHOD
Dehu Yuan, China

IAC-12.B2.6.13
SYSTEM DESIGN AND MANUFACTURE OF CHINA COMPASS SATELLITE
Jun Xie, China Academy of Space Technology (CAST), China

IAC-12.B2.6.14
LINEAR MATRIX INEQUALITIES BASED ADAPTIVE FILTER FOR AUTONOMOUS NAVIGATION USING INTER-SATELLITE-LINK MEASUREMENTS
Xiaoliang Wang, China

B3. HUMAN SPACE ENDEAVOURS SYMPOSIUM

Coordinator: *John Uri, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States; Carlo Mirra, EADS Astrium, The Netherlands;*

B3.1. Overview Session (Present and Near-Term Human Space Flight Programmes)

October 1 2012, 15:15 — TS11 (Egadi, Palacongressi)

Chairs: *Carlo Mirra, EADS Astrium, The Netherlands; John Uri, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States;*
Rapporteur: *Rainer Willnecker, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*

IAC-12.B3.1.1
SYMPOSIUM KEYNOTE: THE INTERNATIONAL SPACE STATION: THE PRESENT AND THE PROMISE FOR THE FUTURE
William H. Gerstenmaier, National Aeronautics and Space Administration (NASA), United States

IAC-12.B3.1.2
INTERNATIONAL SPACE STATION BENEFITS FOR HUMANITY
Julie A. Robinson, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States

IAC-12.B3.1.4
ESA'S HUMAN SPACEFLIGHT PROGRAMME: PRESENT AND FUTURE
Thomas Reiter, European Space Agency (ESA), Germany

IAC-12.B3.1.5
NEW HORIZON OF JAPAN'S ISS PROGRAM
Yoshiyuki Hasegawa, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B3.1.6
CANADA AND THE INTERNATIONAL SPACE STATION PROGRAM: OVERVIEW AND STATUS SINCE IAC 2011
Pierre Jean, Canadian Space Agency, Canada

IAC-12.B3.1.7
THE ITALIAN SPACE AGENCY CURRENT AND NEAR-TERM NATIONAL PROGRAMMES AND ACTIVITIES IN HUMAN SPACE FLIGHT SECTOR
Delfina Bertolotto, Italian Space Agency (ASI), Italy

IAC-12.B3.1.8
REVIEW OF CHINA'S FIRST RENDEZVOUS AND DOCKING MISSION
Ming Li, China Academy of Space Technology (CAST), China

IAC-12.B3.1.9
THE ISECG GLOBAL EXPLORATION ROADMAP: AN INTERNATIONAL EFFORT PREPARING FOR SUSTAINABLE HUMAN SPACE EXPLORATION
Kathy Laurini, National Aeronautics and Space Administration (NASA), The Netherlands

IAC-12.B3.1.10
EXPLORATION PLATFORM IN THE EARTH-MOON LIBRATION SYSTEM BASED ON ISS
Michael Raftery, Boeing Defense Space & Security, United States

B3.2. How Can We Best Apply Our Experience to Future Human Missions?

October 2 2012, 10:15 — TS11 (Egadi, Palacongressi)

Chairs: *Dieter Sabath, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany; Sergey K. Shaevich, Khrunichev State Research & Production Space Center, Russia;*
Rapporteur: *Gene Rice, RWI - Rice Wigbels Int'l, United States;*

IAC-12.B3.2.1
DEVELOPMENT OF THE ORBITAL INFRASTRUCTURE
Alexander G. Derechin, S.P. Korolev Rocket and Space Corporation Energia, Russia

IAC-12.B3.2.2
A NEXT GENERATION SPACE STATION
Katarina Eriksson, International Space University (ISU), Sweden

IAC-12.B3.2.3
SPACE STATIONS OF FUTURE
Oleg Saprykin, TSNIIMASH, Russia

IAC-12.B3.2.4
DISCUSSION ON THE INTERNATIONALIZATION TENDENCY AND INTERNATIONAL COLLABORATION APPROACH OF SPACE STATION
Jingtao Li, Institute of Manned Space System Engineering,China Academy of Space Technology (CAST), China

IAC-12.B3.2.5
DEVELOPMENT OF THE SPACECRAFTS ONBOARD CONTROL SYSTEMS: ON THE EXAMPLE OF THE ISS RUSSIAN SEGMENT
Evgeny Mikrin, S.P. Korolev Rocket and Space Corporation Energia, Russia

IAC-12.B3.2.6
ECLSS UPGRADE STRATEGY FOR FUTURE LONG-DURATION MANNED MISSION.
Sogo Nakanoya, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B3.2.7
USAGE OF PRE-FLIGHT DATA IN SHORT RENDEZVOUS MISSION OF SOYUZ-TMA SPACECRAFT
Rafail Murtazin, Rocket Space Corporation Energia, Russia

IAC-12.B3.2.8
HUMAN FACTORS IN THE SPACE STATION DESIGN PROCESS
Irene Lia Schlacht, Technische Universität Berlin, Germany

IAC-12.B3.2.9
USER-ORIENTED DESIGN STRATEGIES FOR SAFETY AND WELL-BEING DURING SPACE MISSIONS
Paivi Jukola, Helsinki University of Technology (TKK), Finland

IAC-12.B3.2.10
MICRO-G USABILITY ERGONOMIC ISSUES IN COLUMBUS APPLIED TO TOOL BAG MKII DESIGN DEVELOPING PHASES
Marinella Ferrino, Thales Alenia Space, Italy

IAC-12.B3.2.11
APPLYING LESSONS LEARNED FROM THE ISS MAINTENANCE APPROACH TO FUTURE LONG DURATION MISSIONS
Mark Dillard, NASA, United States

B3.3. ISS Utilisation

October 3 2012, 10:15 — TS11 (Egadi, Palacongressi)

Chairs: *Maria Stella Lavitola, Thales Alenia Space Italia, Italy; Kevin D. Foley, The Boeing Company, United States;*
Rapporteur: *Shannon Ryan, Defence Science and Technology Organisation (DSTO), Australia;*

IAC-12.B3.3.1
EXPANDING THE CAPABILITIES OF THE INTERNATIONAL SPACE STATION RESEARCH FACILITIES
William Jones, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States

IAC-12.B3.3.4
FURTHER UTILIZATION OF THE ISS RUSSIAN SEGMENT: RESEARCH ACCOMPLISHMENTS AND PLANS FOR THE NEXT DECADE
Igor V. Sorokin, S.P. Korolev Rocket and Space Corporation Energia, Russia

IAC-12.B3.3.5
SCIENCE AND APPLICATIONS ON ISS WITHIN ESA'S ELIPS PROGRAMME
Christer Fuglesang, ESA, The Netherlands

IAC-12.B3.3.6
INTERNATIONAL SPACE STATION AS ANALOG OF INTERPLANETARY TRANSIT VEHICLE FOR BIOMEDICAL RESEARCH
John Charles, NASA Human Research Program, United States

IAC-12.B3.3.7
ADVANCED JAMSS SPACE BUSINESS BY THE ISS UTILIZATION
YASHIO KASHIYAMA, Japan Manned Space Systems Corporation (JAMSS), Japan

IAC-12.B3.3.8
EXTENDING THE INTERNATIONAL SPACE STATION TO AN EXPLORATION PLATFORM AT EML2
Matthew Duggan, The Boeing Company, United States

IAC-12.B3.3.9
ESA CONDITIONED CONTAINER: A SYSTEM FOR PASSIVE TEMPERATURE CONTROLLED TRANSPORTATION OF EXPERIMENTS FOR THE INTERNATIONAL SPACE STATION
Gianluca Neri, Kayser Italia Srl, Italy

IAC-12.B3.3.10
ISS – TEST BED FOR THE FUTURE SOLAR SAIL SYSTEMS
Nikolay Nerovnyy, Bauman Moscow State Technical University, Russia

IAC-12.B3.3.11
THE ERASMUS RECORDING BINOCULAR 2 (ERB-2)
Marco Esposito, Cosine Research BV, The Netherlands

IAC-12.B3.3.12
THE NIGHTPOD – AN ORBITAL MOTION COMPENSATION MECHANISM FOR ISS BASED IMAGING
Simon Silvio Conticello, Cosine Research BV, The Netherlands

B3.4-B6.5. Sustainable Operation of the ISS - Joint Session of the Human Space Endeavours and Space Operations Symposia

October 3 2012, 15:15 — TS11 (Egadi, Palacongressi)

Chairs: *Maria Stella Lavitola, Thales Alenia Space Italia, Italy; Helmut Luttmann, Astrium Space Transportation, Germany; Bob Chesson, European Space Agency (ESA), The Netherlands;*
Rapporteur: *Rachid Amekrane, Astrium GmbH, Germany;*

IAC-12.B3.4-B6.5.1
DEVELOPMENT AND IMPLEMENTATION OF A NEW COLUMBUS OPERATIONS SETUP
Dieter Sabath, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B3.4-B6.5.2
ANALYSIS FOR JAXA PLANNING PROCESS AND SPECIFIC PLANNING COORDINATION ITEMS DURING INCREMENT 28 AND 29
Keiko Komatsu, TIS Inc., Japan

IAC-12.B3.4-B6.5.3
ATV MISSIONS - 15 YEARS OF INTERNATIONAL COOPERATION
Regina Mosenkis, EADS Astrium Space Transportation GmbH, Germany

IAC-12.B3.4-B6.5.4
THALES ALENIA SPACE CONTRIBUTION TO HUMAN SPACE FLIGHTS: FROM INTERNATIONAL SPACE STATION ASSEMBLY TO LOGISTIC RESUPPLY
Annamaria Piras, Thales Alenia Space Italia, Italy

IAC-12.B3.4-B6.5.5
LOGISTICS & MAINTENANCE SUPPORT FOR MPLM MODULES IN THE FRAME OF ISS OPERATION - OVERVIEW AND LESSONS LEARNED
Rosa Sapone, Altec S.p.A., Italy

IAC-12.B3.4-B6.5.6
THE ROLE OF DEXTEROUS ROBOTICS IN ONGOING MAINTENANCE OF THE ISS
Cameron Ower, MDA, Canada

IAC-12.B3.4-B6.5.7
ROAD TO JEMRMS GROUND CONTROL
Kazutaka Watanabe, Japan Manned Space Systems Corporation, Japan

IAC-12.B3.4-B6.5.8
DECLIC OPERATIONS AND GROUND SEGMENT: AN EFFECTIVE WAY TO OPERATE A PAYLOAD IN THE ISS
Gabriel Pont, Centre National d'Etudes Spatiales (CNES), France

IAC-12.B3.4-B6.5.9
GROUND OPERATIONS FOR ITALIAN PAYLOADS ON BOARD ISS
Dario Castagnolo, Telespazio, Italy

B3.5. Astronauts: Those Who Make It Happen

October 4 2012, 10:15 — TS11 (Egadi, Palacongressi)

Chairs: *Igor V. Sorokin, S.P. Korolev Rocket and Space Corporation Energia, Russia; Alan T. DeLuna, United States;*
Rapporteur: *Tai Nakamura, Japan Aerospace Exploration Agency (JAXA), Japan;*

IAC-12.B3.5.1
SYMPOSIUM KEYNOTE: SOYUZ, SHUTTLE, SALYUT, ISS - ASTRONAUTS PERSPECTIVES
Soichi Noguchi, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B3.5.2
THE 2008-2009 ESA ASTRONAUT SELECTION CAMPAIGN MEDICAL AND PSYCHOLOGICAL COMPONENTS
Casey Pruett, Wyle, Germany

IAC-12.B3.5.3
JAXA'S NEW STRATEGIES FOR ASTRONAUT TRAINING
Soichi Noguchi, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B3.5.4
REFINING FLIGHT SURGEON TRAINING AND CERTIFICATION FOR OPTIMAL ASTRONAUT CARE IN LONG DURATION MISSIONS
Casey Pruett, Wyle, Germany

IAC-12.B3.5.5
PSYCHOBIOLOGY OF COGNITION AND CREATIVITY IN SPACE ENVIRONMENT
Mario Benassai, Altec S.p.A., Italy

IAC-12.B3.5.6
PERSON AUTONOMY OF CREW MEMBERS IN EXTREME CONFINEMENT AS SEEN FROM THE VIEWPOINT OF MISSION GROUND CONTROL: IMPLICATIONS FOR COMMUNICATION AND DECISION MAKING
Bernadette van Baarsen, VU medisch centrum, The Netherlands

IAC-12.B3.5.7
INTEGRATED STUDY OF THE ISS AS AN ENVIRONMENT FOR HUMAN-OPERATOR' LIFE AND ACTIVITIES
Mikhail Yu. Belyaev, Korolev RSC Energia, Russia

IAC-12.B3.5.8
LAUNCH OF MICROSATELLITES FROM MANNED SPACE STATIONS DURING EXTRAVEHICULAR ACTIVITY OF CREWMEMBERS: RUSSIAN EXPERIENCE AND PERSPECTIVE
Samburov Sergey, Russia

IAC-12.B3.5.10
HUMAN FACTORS ISSUES IN CHINESE SHENZHOU 9 MANNED SPACE MISSION
ShanGuang Chen, Astronaut Center of China, China

B3.7. New Technologies, Processes and Operating Modes Enabling Future Human Missions

October 5 2012, 09:00 — TS11 (Egadi, Palacongressi)

Chairs: *Martin Zell, European Space Agency (ESA), The Netherlands; Lionel Suchet, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Gi-Hyuk Choi, Korean Aerospace Research Institute, Korea, Republic of;*

IAC-12.B3.7.1
THE LOGISTICS SUPPLY IN CHINA'S TG SPACELAB
Zhou Lin, China Academy of Space Technology (CAST), China

IAC-12.B3.7.2
PROBLEMS OF TRANSPORT CARGO VEHICLE FLIGHT CONTROL WHEN RESEARCHES ARE PERFORMED IN ITS FREE FLIGHT
Tatiana Matveeva, Korolev RSC Energia, Russia

IAC-12.B3.7.4
THERMAL CONTROL SYSTEM DESIGN OF INTERNATIONAL SPACE STATION NODE MODULE
Maria Komarova, S.P. Korolev Rocket and Space Corporation Energia, Russia

IAC-12.B3.7.5
RECYCLABLE RESPIRATORY SYSTEM- POTENTIAL SOLUTION TOWARDS LONG TERM MANNED MISSION TO MARS
Muhammad Shadab Khan, Department of Aeronautical Engineering,Babu Banarasi Das National Institute of Technology and Management,Lucknow, India

IAC-12.B3.7.6
TOTAL WATER RECYCLING SYSTEM DEVELOPMENT FOR FUTURE MANNED SPACE MISSION
Yuichiro Nogawa, Japan Manned Space Systems Corporation, Japan

IAC-12.B3.7.7
AUDIBLE NOISE CONTROL METHOD IN MANNED SPACE LAB
Ping Hao, Institute of Manned Space System Engineering,China Academy of Space Technology (CAST), China

IAC-12.B3.7.8
EVALUATION OF COMMUNICATION PROTOCOLS BETWEEN MISSION CONTROL AND ASTRONAUTS DURING A SERIES OF SCIENCE DRIVEN SIMULATED LUNAR MISSIONS
Melissa M. Battler, University of Western Ontario, Canada

IAC-12.B3.7.9
DEVELOPMENT OF THE INTERNATIONAL BERTHING AND DOCKING MECHANISM COMPATIBLE WITH THE INTERNATIONAL DOCKING SYSTEM STANDARD
Dirk Claessens, QinetiQ Space nv, Belgium

IAC-12.B3.7.10
STUDY ON FAULT SCHEMES DURING THE PROCESS OF SWITCHING TO AUTONOMOUS CONTROL IN RENDEZVOUS AND DOCKING
Yi Tang, Institute of Manned Space System Engineering,China Academy of Space Technology; Nanjing University of Aeronautics and Astronautics, China

IAC-12.B3.7.12
THEORETICAL PERFORMANCE PREDICTION FOR COMPACT PLATE-FIN HEAT EXCHANGERS FOR INDIAN HUMAN SPACEFLIGHT PROJECT (HSP)
Mansu Navaneethan, Vikram Sarabhai Space Centre (VSSC), India

IAC-12.B3.7.13
COUPLING OF POLYMER ELECTROLYTE MEMBRANE FUEL CELLS WITH LIFE SUPPORT SYSTEMS
Stefan Belz, University of Stuttgart, Germany

B4. 19th IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS

Coordinator: *Rhoda Shaller Hornstein, National Aeronautics and Space Administration (NASA), United States; Alex da Silva Curiel, Surrey Satellite Technology Ltd, United Kingdom;*

B4.1. 13th UN/IAA Workshop on Small Satellite Programmes at the Service of Developing Countries

October 2 2012, 10:15 — TS09 (Spica, Hall 3)
Chairs: *Sias Mostert, Space Commercial Services Holdings (Pty) Ltd, South Africa; Sergei Chernikov, United Nations Office at Vienna, Austria;*
Rapporteur: *Petr Lala, Czech Space Office, Czech Republic; Pierre Molette, France;*

IAC-12.B4.1.1
ARCHITECTURES OF SMALL SATELLITE PROGRAMS IN DEVELOPING COUNTRIES
Danielle Wood, Massachusetts Institute of Technology (MIT), United States

IAC-12.B4.1.2
UAE & THE SPACE INDUSTRY – THROUGH THE LENS OF DUBAISAT
Ahmed Al Mansoori, Emirates Institution for Advanced Science and Technology (EIAST), United Arab Emirates

IAC-12.B4.1.3
INCREASING THE VALUE OF SMALL SATELLITE PROGRAMS FOR DEVELOPING COUNTRIES
Sias Mostert, Space Commercial Services Holdings (Pty) Ltd, South Africa

IAC-12.B4.1.4
SMALL SATELLITE MISSIONS- PROVIDING COST EFFECTIVE SMART SOLUTIONS TO THE SOCIETY IN DEVELOPING COUNTRIES
Muhammad Shadab Khan, Department of Aeronautical Engineering,Babu Banarasi Das National Institute of Technology and Management,Lucknow, India

IAC-12.B4.1.5
PROGRESS IN THE BRAZILIAN INPE-UFSM NANOSATC-BR CUBESAT PROGRAM
Nelson Jorge Schuch, Southern Regional Space Research Center - CRS/CCR/INPE - MCT in collaboration with the Space Science Laboratory of Santa Maria - LACESM/CT - UFSM, Brazil

IAC-12.B4.1.6
MULTISTATIC SMALL SATELLITE NETWORK FOR OIL MONITORING IN NIGERIA
Abdul Lawal, United Kingdom

IAC-12.B4.1.7
THE IMPACT OF AN AEROSPACE ORGANIZATION IN DEVELOPING COUNTRIES: THE CENTRAL AMERICAN CASE
Carlos Alvarado, Central American Association of Aeronautics and Space (ACAE), Costa Rica

IAC-12.B4.1.8
OPEN SOURCE STUDENT SATELLITES: BENEFITS AND IMPLEMENTATION
Gautam Akiwate, College of Engineering Pune, India

IAC-12.B4.1.9
CHANGING THE PARADIGM: A NEW APPROACH TO SATELLITE DESIGN
Michael McGrath, University of Colorado, United States

IAC-12.B4.1.10
SATELLITE PROGRAMS OF AZERBAIJAN
Sevda R. Ibrahimova, Azerbaijan National Aerospace Agency, Azerbaijan

IAC-12.B4.1.11
THE GUIDEBOOK ON SMALL SATELLITE PROGRAMS: MANAGEMENT OF AN INTERNATIONAL TEAM, LESSONS LEARNED, AND FUTURE VISIONS
Michael Bergmann, Graz University of Technology (TU Graz), Austria

B4.2. Small Space Science Missions

October 1 2012, 15:15 — TS09 (Spica, Hall 3)

Chairs: *Stamatios Krimigis, The John Hopkins University, United States; Denis J.P. Moura, European Defence Agency, Belgium;*

IAC-12.B4.2.1
INITIAL ORBIT DETERMINATION RESULTS FOR THE LARES SATELLITE
Antonio Paolozzi, University of Rome "La Sapienza", Italy

IAC-12.B4.2.2
OPTIMAL GLOBAL DISTRIBUTION OF OCCULTATION DATA FOR FORMOSAT-3 AND -7 TYPE CONSTELLATIONS
Rock Jeng-Shing Chern, University of Science & Technology, Taiwan, China

IAC-12.B4.2.3
EXPERIMENT POTENTIAL ONBOARD SICH-2 MICROSATELLITE – FIRST RESULTS
Valerii Korepanov, Lviv Centre of Institute for Space Research, Ukraine

IAC-12.B4.2.4
OPERATIONS FOR TWO SPACECRAFT OF TRIPLE-CUBESAT MISSION TRIO-CINEMA WITH A SINGLE RF CHAIN
Seyoung Yoon, Kyung Hee University, Korea, Republic of

IAC-12.B4.2.5
THE KEY DEMONSTRATIONS OF HIGH-PRECISION TWO SATELLITE FORMATION FLIGHT
Yi-wei Liu, DFH Satellite CO.,LTD, China

IAC-12.B4.2.6
TWENTESAT – THE FIRST LOW-FREQUENCY INTERFEROMETER IN SPACE
Mark Bentum, University of Twente, The Netherlands

IAC-12.B4.2.7
EXOPLANETSAT: HIGH PRECISION PHOTOMETRY FOR EXOPLANET TRANSIT DETECTION IN A 3U CUBESAT
Mary Knapp, Massachusetts Institute of Technology (MIT), United States

IAC-12.B4.2.8
PLASMA IRREGULARITIES IN THE IONOSPHERIC F-REGION UNDER DIFFERENT SOLAR ACTIVITY CONDITIONS: A STUDY USING NANOSATELLITES
Alexandre Alvares Pimenta, National Institute for Space Research - INPE, Brazil

IAC-12.B4.2.9
I-INSPIRE - AUSTRALIA'S FIRST UNIVERSITY PICO-SATELLITE MISSION
Size Xiao, University of Sydney, Australia

IAC-12.B4.2.11
ATTITUDE DYNAMICS ANALYSIS OF AALTO-1 SATELLITE DURING DE-ORBITING EXPERIMENT WITH PLASMA BRAKE
Osama Khurshid, Aalto University School of Science and Technology, Finland

B4.3. Small Satellite Operations

October 2 2012, 15:15 — TS09 (Spica, Hall 3)

Chairs: *Peter M. Allan, Rutherford Appleton Laboratory, United Kingdom; Karen McBride, University of California, Los Angeles, United States;*

IAC-12.B4.3.1
ESA'S PROJECT FOR ON-BOARD AUTONOMY: PAYLOAD OPERATION DESIGN
Joe Zender, European Space Research and Technology Centre, ESA-ESTEC, The Netherlands

IAC-12.B4.3.2
ASAP – A SENSOR SYSTEM FOR AUTONOMOUS EVENT DETECTION AND ON BOARD PLANNING
Hakan Kayal, University Wuerzburg, Germany

IAC-12.B4.3.3
BOPS: AN AUTONOMOUS PLANNING SYSTEM FOR SMALL SPACE OBSERVATION SATELLITE
Jixiang Cui, Beijing Institute of Tracking and Telecommunication Technology, China

IAC-12.B4.3.4
NOVEL CONCEPT OF MICRO/NANO-SATELLITE SYSTEM DESIGN AND OPERATION ASSUMING ON-ORBIT RECONFIGURABILITY OF ATTITUDE DETERMINATION AND CONTROL SYSTEM
Kensuke Shimizu, University of Tokyo, Japan

IAC-12.B4.3.5
ENHANCING SMALL SATELLITE MISSIONS WITH MODEL BASED TRANSMISSION REDUCTION
Jeremy Straub, University of North Dakota, United States

IAC-12.B4.3.6
DEVELOPMENT OF NEW GROUND STATION AT KYUSHU UNIVERSITY FOR NANO SATELLITE OPERATION WITH EFFICIENT AND LOW-COST NET WORK SYSTEM
Shigeru Aso, Kyushu University, Japan

IAC-12.B4.3.7
OPTIMAL DYNAMIC OPERATIONS SCHEDULING FOR SMALL-SCALE SATELLITES
Eirini Komninou, University of Strathclyde, United Kingdom

IAC-12.B4.3.8
TRAINING FOR SMALL SATELLITE MISSION OPERATIONS
Christian D. Bodemann, VEGA Space GmbH, Germany

IAC-12.B4.3.9
BRITE-AUSTRIA GROUND SEGMENT AND DISTRIBUTED OPERATIONS CONCEPT
Patrick Romano, Graz University of Technology (TU Graz), Austria

IAC-12.B4.3.10
ATTITUDE DETERMINATION AND ONBOARD CONTROL OF SATELLITES USING SMART PHONES
Guruditya Sinha, India

IAC-12.B4.3.11
COMMAND AND CONTROL OF SMALL SATELLITES USING TABLET COMPUTERS: INCREASING COLLABORATION AND INNOVATION IN SPACE OPERATIONS
Bruce Chesley, Boeing Space and Intelligence Systems, United States

IAC-12.B4.3.12
SIMPLIFIED FEMTO-SATELLITE OPERATIONS FOR DISASTER MANAGEMENT MISSIONS
Joshua Tristancho, UPC, Spain

B4.4. Small Earth Observation Missions

October 3 2012, 10:15 — TS09 (Spica, Hall 3)

Chairs: *Larry Paxton, The Johns Hopkins University Applied Physics Laboratory, United States; Amnon Ginati, European Space Agency (ESA), The Netherlands;*
Rapporteur: Klaus Briess, Technische Universität Berlin, Germany;

IAC-12.B4.4.1
JOINT EMSA/ESA INITIATIVE FOR AN EUROPEAN SATELLITE AIS PROGRAMME
Carsten Tobehn, European Space Agency (ESA), The Netherlands

IAC-12.B4.4.2
BREAKING THE MOLD: A 15KG EARTH OBSERVATION MISSION
Joost Elstak, ISIS - Innovative Solutions In Space B.V., The Netherlands

IAC-12.B4.4.3
FIRE DETECTION AND FIRE GROWTH MONITORING FROM SATELLITE MONITORS
Mike Cutter, Surrey Satellite Technology Ltd, United Kingdom

IAC-12.B4.4.4
HIGH-TECH MICROSATELLITES AND THEIR POSSIBLE EXPLOITATION
Fabio Capece, University of Rome "La Sapienza", Italy

IAC-12.B4.4.5
MICRO/NANOSATELLITE SOCIAL UTILIZATION DESIGN FOR ILLEGAL WASTE DISPOSAL DETECTION
Naomi Kurahara, University of Tokyo, Japan

IAC-12.B4.4.6
MICROSATELLITE CONCEPT FOR MARITIME APPLICATIONS
Nil Angli, Surrey Satellite Technology Ltd, United Kingdom

IAC-12.B4.4.7
PROBA V : A MULTI-SPECTRAL EARTH OBSERVATION MISSION BASED ON A PROBA PLATFORM
Dirk Claessens, QinetiQ Space nv, Belgium

IAC-12.B4.4.8
REMOTE SENSING SATELLITE FORMOSAT-5
Ho-Pen Chang, National Space Organization, Taiwan, China

IAC-12.B4.4.10
STUDY OF OCCULTATION EVENTS RECORDED BY THE ROSA PAYLOAD, ABOARD MEGHA-TROPIQUES, OVER INDIAN REGION
Shibu Saha, ISRO Satellite Centre (ISAC), India

IAC-12.B4.4.11
THE FREE-FLYING SMALL SATELLITE CLUSTER FOR MULTI-APPROACH EARTH OBSERVATION MISSION
Zhang Jinxiu, Harbin Institute of Technology, China

IAC-12.B4.4.12
THE TANSAT MISSION: GLOBAL CO2 OBSERVATION AND MONITORING
Wen Chen, Shanghai Institute of Microsystem and Information Technology, China

IAC-12.B4.4.13
MRES: A MEDIUM RESOLUTION MAPPING SATELLITE SYSTEM FOR THE REPUBLIC OF KAZAKHSTAN
Alex da Silva Curiel, Surrey Satellite Technology Ltd, United Kingdom

B4.5. Access to Space for Small Satellite Missions

October 5 2012, 14:00 — TS09 (Spica, Hall 3)

Chairs: *Alex da Silva Curiel, Surrey Satellite Technology Ltd, United Kingdom; Jeffery Emdee, The Aerospace Corporation, United States;*

IAC-12.B4.5.1
THE X-37B ORBITAL TEST VEHICLE AS A TECHNOLOGY DEVELOPMENT AND MATURATION PLATFORM FOR PRIMARY AND SECONDARY EXPERIMENTS
Bruce Chesley, Boeing Space and Intelligence Systems, United States

IAC-12.B4.5.2
NANO/MICROSATELLITE LAUNCH DEMAND ASSESSMENT: 2012 UPDATE
A.C. Charania, Particle 9, Inc., United States

IAC-12.B4.5.3
INVITED PAPER: MICRO-LAMBDA - A MICRO SATELLITE LAUNCH VEHICLE CONCEPT
Seiji Matsuda, IHI Aerospace Co, Ltd., Japan

IAC-12.B4.5.4
SETTING EXPECTATIONS FOR SUSTAINABLE SECONDARY SATELLITE LAUNCH ABOARD THE SPACEX FALCON 9
Dustin Doud, SpaceX, United States

IAC-12.B4.5.5
SPACEFLIGHT SECONDARY PAYLOAD SYSTEM (SSPS) AND SHERPA TUG – ENABLING SYSTEMS FOR THE LAUNCH OF SECONDARY AND HOSTED PAYLOADS
Jason Andrews, United States

IAC-12.B4.5.6
FLYMATE: ADVANCED NANOSATELLITE DEPLOYER
Stanislaw Ostoja Starzewski, Novanano SAS, France

IAC-12.B4.5.7
PEPPOD: ON BOARD PLANTED ELEMENTARY PLATFORM FOR PICOSATELLITE ORBITAL DEPLOYING
Giuseppe Martinotti, Scuola di Ingegneria Aerospaziale, Italy

IAC-12.B4.5.8
A ROUND THE WORLD TICKET FOR YOUR SMALLSAT
Joost Elstak, ISIS - Innovative Solutions In Space B.V., The Netherlands

IAC-12.B4.5.9
RAPID ADVANCEMENT OF CRITICAL SPACE TECHNOLOGY FOR FUTURE MISSIONS LEVERAGING STANDARD INTERFACE ARCHITECTURES
Kevin Miller, Ball Aerospace & Technologies Corp., United States

IAC-12.B4.5.10
THE ADAPTER AND SEPARATION SYSTEMS SERIES FOR THE VEGA LAUNCH VEHICLE
Davide Bruzzi, ALMASpace S.r.l., Italy

IAC-12.B4.5.11
LARES IS IN ORBIT! SOME ASPECTS OF THE MISSION
Antonio Paolozzi, University of Rome "La Sapienza", Italy

IAC-12.B4.5.12
MAGNETIC ATTITUDE CONTROL ALGORITHMS FOR ESTCUBE-1
Andris Slavinskis, University of Tartu, Estonia

IAC-12.B4.5.13
THE BROKERAGE AND MANAGEMENT OF SMALL SATELLITE LAUNCH SERVICES IN RUSSIA
Gerald Webb, Commercial Space Technologies Ltd., United Kingdom

B4.6A. Generic Technologies for Small/Micro Platforms

October 4 2012, 10:15 — TS09 (Spica, Hall 3)

Chairs: *Nicholas Waltham, Rutherford Appleton Laboratory, United Kingdom; Philip Davies, Surrey Satellite Technology Ltd, United Kingdom;*

IAC-12.B4.6A.1
TET-BASED SMALL SATELLITE FAMILY CONCEPT
Clemens Kaiser, Kayser-Threde GmbH, Germany

IAC-12.B4.6A.2
FIRST FLIGHT RESULT OF JAPANESE TECHNOLOGY DEMONSTRATION MISSION SDS-4
Takashi Ohtani, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.B4.6A.3
DEVELOPMENT OF OPERATIONAL 100KG-CLASS STANDARD SPACECRAFT BUS
Noriaki Oka, Japan Space Systems (J-spacesystems), Japan

IAC-12.B4.6A.4
SARAL - FIRST MISSION ON MODULAR MULTI MISSION MINI SATELLITE BUS
D.V.A. Raghava Murthy, ISRO Satellite Centre (ISAC), India

IAC-12.B4.6A.5
EFFICIENT PRODUCTION ENGINEERING OF SMALL-SATELLITE CONSTELLATIONS
Philip Davies, Surrey Satellite Technology Ltd, United Kingdom

IAC-12.B4.6A.6
DUBAISAT-2 HIGH RESOLUTION ADVANCED IMAGING SYSTEM (HIRAIS)
Suhail AlDhafri, Emirate Institution for Advanced Science & Technology (EIAST), United Arab Emirates

IAC-12.B4.6A.7
COMPACT AND HIGH PERFORMANCES EQUIPMENT FOR VISION-BASED NAVIGATION
Giuseppe Capuano, TECHNO SYSTEM DEV., Italy

IAC-12.B4.6A.8
PRECISE - DEVELOPMENT OF A MEMS-BASED MONOPROPELLANT MICRO CHEMICAL PROPULSION SYSTEM
Markus Gauer, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B4.6A.9
ON-BOARD POWER AND BATTERY SYSTEM FOR SMALL SATELLITES
Stefano Speretta, ISIS - Innovative Solutions In Space B.V., The Netherlands

IAC-12.B4.6A.10
THERMAL CONTROL DESIGN AND VERIFICATION OF BUAA-SAT
Jianbin Han, Beihang University, China

IAC-12.B4.6A.11
USING THIN-FILM THERMOELECTRIC COOLERS FOR THERMAL MANAGEMENT ONBOARD SMALL LEO SATELLITES
Aimal Siraj, void inc., Japan

IAC-12.B4.6A.12
THE DESIGN AND IMPLEMENTATION OF LEON BASED COMMAND AND DATA HANDLING SUBSYSTEM FOR NARO SATELLITE OF KOREA
Daesoo Oh, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of

B4.6B. Generic Technologies for Nano/Pico Platforms

October 4 2012, 15:15 — TS09 (Spica, Hall 3)

Chairs: *Nicholas Waltham, Rutherford Appleton Laboratory, United Kingdom; Philip Davies, Surrey Satellite Technology Ltd, United Kingdom;*
Rapporteur: *Joost Elstak, ISIS - Innovative Solutions In Space B.V., The Netherlands;*

IAC-12.B4.6B.1
FALCONSAT-7: A DEPLOYABLE SOLAR TELESCOPE MISSION
Mike Dearborn, U.S. Air Force, United States

IAC-12.B4.6B.2
DEVELOPMENT OF CHALLENGING TECHNOLOGY OF NOVEL STRUCTURE SYSTEM AND NON-EXPLOSIVE, LOW-COST, LOW-VIBRATION SEPARATION DEVICE OF NANO SATELLITE QSAT-EOS
Shigeru Aso, Kyushu University, Japan

IAC-12.B4.6B.3
STRAND-2: KINECTING TWO CUBESATS IN FLIGHT
Shaun Kenyon, Surrey Satellite Technology Ltd, United Kingdom

IAC-12.B4.6B.4
DESIGN, IMPLEMENTATION, AND TESTING THE CENTRAL CONTROLE MODULE AND INFORMATION MANAGEMENT FOR CHASQUI PICO-SATELLITE
Elvis Omar Jara Alegria, Universidad Nacional de Ingenieria, Peru

IAC-12.B4.6B.5
DESIGN AND DEVELOPMENT OF A RELIABLE ADCS AND INDIGENOUS BUS ARCHITECTURE FOR NANOSATELLITES: ITU PSAT II
Gokhan Inalhan, Istanbul Technical University, Turkey

IAC-12.B4.6B.6
DESIGN OF THE ACTIVE ATTITUDE DETERMINATION AND CONTROL SYSTEM FOR THE E-ST@R CUBESAT
Sabrina Corpino, Politecnico di Torino, Italy

IAC-12.B4.6B.7
HIGHLY INTEGRATED, LOW VOLUME AND MASS ACS SUBSYSTEM FOR PICOSATELLITES
Stefano Redi, SSBV, United Kingdom

IAC-12.B4.6B.8
INFLATABLE ANTENNA FOR CUBESAT: MOTIVATION FOR DEVELOPMENT AND ANTENNA DESIGN
Alessandra Babuscia, Massachusetts Institute of Technology (MIT), United States

IAC-12.B4.6B.9
SOFTWARE DEFINED TRANSCEIVERS DESIGN IN NANO AND PICOSATELLITES
Danilo Roascio, Politecnico di Torino, Italy

IAC-12.B4.6B.10
COMMCUBE-1: INCREASED DATA DOWNLINK VOLUME THROUGH THE GLOBALSTAR NETWORK
Mary Knapp, Massachusetts Institute of Technology (MIT), United States

IAC-12.B4.6B.11
MODULATING RETRO-REFLECTORS: TECHNOLOGY, LINK BUDGETS AND APPLICATIONS
James Mason, USRA / NASA Ames Research Center, United States

IAC-12.B4.6B.12
DEVELOPMENT OF A DE-ORBITING MECHANISM FOR A 3-UNIT SATELLITE
Alim Rustem Aslan, Istanbul Technical University, Turkey

B4.7A. Space Systems and Architectures Featuring Cross-Platform Compatibility

October 3 2012, 15:15 — TS09 (Spica, Hall 3)

Chairs: *Jaime Esper, National Aeronautics and Space Administration (NASA), United States; Marco D'Errico, Seconda Universita' di Napoli, Italy;*
Rapporteur: *Peter Mendham, United Kingdom;*

IAC-12.B4.7A.1
SCALABLE PLUG AND PLAY TILES FOR MODULAR NANOSATELLITES
M.Rizwan Mughal, Politecnico di Torino, Italy

IAC-12.B4.7A.2
THE LAIKABOARD – PROPOSAL FOR A GENERIC, MODULAR AND DISTRIBUTED OPEN SOURCE SATELLITE ON-BOARD DATA HANDLING SYSTEM
Claas Ziemke, Institute of Space Systems, Universität Stuttgart, Germany

IAC-12.B4.7A.3
ROBUST AND SCALABLE ELECTRONIC POWER SYSTEM FOR SMALL SATELLITES
Stefano Speretta, ISIS - Innovative Solutions In Space B.V., The Netherlands

IAC-12.B4.7A.4
ALMASAT-1, ALMASAT-EO AND BEYOND: EVOLUTION OF STRUCTURAL CONCEPTS AND TECHNOLOGIES TOWARDS MULTIFUNCTIONAL STRUCTURES FOR MICROSATELLITES
Davide Bruzzi, ALMASpace S.r.l., Italy

IAC-12.B4.7A.5
SPACE PLUG AND PLAY AVIONICS FOR SMALL SATELLITES
Toshinori Kuwahara, Tohoku University, Japan

IAC-12.B4.7A.6
NAOSAT: A SCALABLE NANOSATELLITE ARCHITECTURE
Francisco García-de-Quirós, Emxys S.L., Spain

B4.7B. Small Distributed Space Missions

October 3 2012, 15:15 — TS09 (Spica, Hall 3)

Chairs: *Marco D'Errico, Seconda Universita' di Napoli, Italy; Jaime Esper, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *Giancarmine Fasano, University of Naples "Federico II", Italy;*

IAC-12.B4.7B.1
ANALYSIS OF FORMATION GEOMETRIES FOR MULTISTATIC SAR INTERFEROMETRY AND TOMOGRAPHY
Giancarmine Fasano, University of Naples "Federico II", Italy

IAC-12.B4.7B.2
PERFORMANCE ASSESSMENT OF AN INTERFEROMETRIC SAR NETWORK FOR THE EQUATORIAL REGION
Abdul Lawal, United Kingdom

IAC-12.B4.7B.3
SYMPOSIUM KEYNOTE: TANDEM-X: A RADAR INTERFEROMETER WITH TWO FORMATION FLYING SATELLITES
Gerhard Krieger, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B4.7B.4
GPS-BASED RELATIVE NAVIGATION FOR THE PROBA-3 FORMATION FLYING MISSION
Jean-Sébastien Ardaens, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B4.7B.5
DELFFI: FORMATION FLYING WITHIN THE QB50 CONSTELLATION OF NANO-SATELLITES
Eberhard Gill, Delft University of Technology, The Netherlands

IAC-12.B4.7B.6
FRACTIONED SATELLITE TO IMPROVE SPACE MISSIONS FLEXIBILITY, MAINTAINABILITY AND PERFORMANCE
Riccardo Lombardi, Politecnico di Milano, Italy

B4.8. Hitchhiking to the Moon

October 5 2012, 09:00 — TS09 (Spica, Hall 3)

Chairs: *Leon Alkalai, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States; Rene Laufer, Baylor University, United States;*
Rapporteur: *Adam Baker, Rocket Engineering Ltd., United Kingdom;*

IAC-12.B4.8.1
SYMPOSIUM KEYNOTE: LIGHTSAIL: SPACECRAFT READY FOR LAUNCH
Louis Friedman, The Planetary Society, United States

IAC-12.B4.8.2
GETTING TO THE MOON WITH THE GOOGLE LUNAR X PRIZE
Amanda Stiles, X PRIZE Foundation, United States

IAC-12.B4.8.3
STATE OF THE ART OF TEAM ITALIA AMALIA MISSION FOR THE GOOGLE LUNAR X PRIZE RACE
Michèle Lavagna, Politecnico di Milano, Italy

IAC-12.B4.8.4
GETTING TO THE MOON VIA THE JURBAN GOOGLE LUNAR X PRIZE TEAM
Blaze Sanders, JURBAN, United States

IAC-12.B4.8.5
THE PENN STATE LUNAR LION: A UNIVERSITY MISSION TO EXPLORE THE MOON
David B. Spencer, The Pennsylvania State University, United States

IAC-12.B4.8.6
SPACEIL - ISRAELI LUNAR EXPLORATION AS A TOOL TO ENGAGE THE YOUTH IN SPACE RESEARCH AND EDUCATION
Yonatan Winetraub, SpaceIL, Israel

IAC-12.B4.8.7
INTERDISCIPLINARY DESIGN TOWARDS A RACK MOTION LUNAR MICRO-ROVER
Daniel Sors Raurell, LEEM-UPM, Spain

IAC-12.B4.8.8
A MODULAR, MINIATURIZED, LOW-MASS IN-SITU DUST DETECTOR FOR PIGGYBACK PAYLOAD OPPORTUNITIES ON SMALL SPACECRAFT, LANDERS AND ROVERS.
Alexander Wolf, University of Stuttgart, Germany

IAC-12.B4.8.9
A STANDARD DEVICE FOR CHILDREN'S LANDED PAYLOADS
James Burke, The Planetary Society, United States

IAC-12.B4.8.11
AN AFFORDABLE PARADIGM OF HITCHIKER LUNAR AND PLANETARY SPACECRAFT FOR EXPLORATION AND COMMERCE
David Dunlop, National Space Society, United States

IAC-12.B4.8.12
THE INCORPORATION OF TRANSDISCIPLINARY THINKING INTO THE DEVELOPMENT OF HITCHHIKING PAYLOADS
Joanna Griffin, University of Plymouth, United Kingdom

B5. SYMPOSIUM ON INTEGRATED APPLICATIONS

Coordinator: *Amnon Ginati, European Space Agency (ESA), The Netherlands; Larry Paxton, The Johns Hopkins University Applied Physics Laboratory, United States;*

B5.1. Integrated Applications End-to-End Solutions

October 4 2012, 10:15 — TS03 (Altair, Hall 2)

Chairs: *David Y. Kusnierkiewicz, The John Hopkins University, United States; Amnon Ginati, European Space Agency (ESA), The Netherlands;*
Rapporteur: *Boris Penne, DSI Informationstechnik, Germany;*

IAC-12.B5.1.1
B-LIFE PROJECT: NEW SERVICES FOR BIOLOGICAL EMERGENCIES
Roland GUEUBEL, UCL, Belgium

IAC-12.B5.1.2
THE APPLICATION OF AN EXTENSIBLE SHIP DETECTION AND IDENTIFICATION SYSTEM IN REGIONS WITH LIMITED RESOURCES
Bustanul Arifin, Indonesian National Institute of Aeronautics and Space (LAPAN), Indonesia

IAC-12.B5.1.3
EASY – EASY AND SAFE YACHTING
César Bastón Canosa, European Space Agency (ESA), The Netherlands

IAC-12.B5.1.4
SEMAFORS: A SATELLITE-BASED GLOBAL SHIP EFFICIENCY MONITORING, WEATHER FORECASTING AND ROUTING SERVICE
Eva Rodriguez, European Space Agency (ESA), The Netherlands

IAC-12.B5.1.5
SAT-AIS ESA INITIATIVE: A COST EFFECTIVE SOLUTION FOR A EUROPEAN OPERATIONAL SYSTEM FOR MARITIME SURVEILLANCE
Charles Koeck, EADS Astrium, France

IAC-12.B5.1.6
INTOGENER: A SERVICE TO IMPROVE HYDROPOWER GENERATION
Gonzalo Martin-de-Mercado, European Space Agency (ESA), The Netherlands

IAC-12.B5.1.7
SATELLITE COMMUNICATIONS FOR FINANCIAL INSTITUTIONS IN AFRICA - SATFINAFRICA
Fulvio Sansone, SatADSL, Belgium

IAC-12.B5.1.8
PLANET-2: PLANE NETWORK FOR IN-FLIGHT WEATHER SERVICES AND PROVISION OF WEATHER OBSERVATION DATA TO/FROM BUSINESS AND REGIONAL AVIATION
Jean-Marc Gaubert, ATMOSPHERE, Systems & Services, France

IAC-12.B5.1.9
SATELLITE APPLICATIONS TAKE-UP IN EUROPE: AN ANALYSIS OF 3 SCOPING EXERCISES WITH REGIONAL AUTHORITIES
Teodora Secara, EURISY, France

IAC-12.B5.1.10
NOVEL APPROACHES TO INTERNATIONAL COOPERATION AND DATA SHARING FOR SSA
Minoo Rathnasabapathy, Space Generation Advisory Council (SGAC), Australia

B5.2. Tools and Technology in support of Integrated Applications

October 5 2012, 14:00 — TS03 (Altair, Hall 2)

Chairs: *Larry Paxton, The Johns Hopkins University Applied Physics Laboratory, United States; Carsten Tobehn, European Space Agency (ESA), The Netherlands;*
Rapporteur: *David Y. Kusnierkiewicz, The John Hopkins University, United States;*

IAC-12.B5.2.1
THE ROLE OF SPATIAL DATA INFRASTRUCTURE IN SOCIOECONOMIC DEVELOPMENT: THE NIGERIAN CONTEXT
Patricia Akubo, National Space Research and Development Agency, Abuja, Nigeria, Nigeria

IAC-12.B5.2.2
ESA, ISIC AND CATAPULT - A DYNAMIC PARTNERSHIP FOR THE DEVELOPMENT OF INNOVATIVE INTEGRATED APPLICATIONS IN THE UK
John Yates, UK Technology Strategy Board, United Kingdom

IAC-12.B5.2.3
ASSESSMENT AND MITIGATION OF AGRICULTURE DROUGHT AND WATER AVAILABILITY IN THE SOUTHEASTERN UNITED STATES USING SPACE SCIENCE TECHNOLOGY
Walter Ellenburg, University of Alabama in Huntsville, United States

IAC-12.B5.2.4
SPACE WEATHER DATA FOR RESEARCH AND APPLICATIONS: AN INTEGRATED PROGRAM OF REMOTE SENSING INSTRUMENTS AND SOFTWARE
Larry Paxton, The Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.B5.2.5
SPACE TECHNOLOGY FOR NATURAL HAZARDS DETECTION IN AZERBAIJAN
Sevda R. Ibrahimova, Azerbaijan National Aerospace Agency, Azerbaijan

IAC-12.B5.2.6
INTEGRATED SPACE TECHNOLOGY ON SMALL AIRCRAFT FOR INSTANT SITUATIONAL AWARENESS IN DISASTER SITUATIONS
Klaus Becher, Knowledge & Analysis LLP, United Kingdom

IAC-12.B5.2.7
PPP MODELS FOR THE BENEFIT OF SUSTAINABLE SPACE-BASED SERVICES – NEW FUNDING MECHANISMS FOR DEVELOPING INTEGRATED SPACE BASED APPLICATIONS
Erich Klock, European Space Policy Institute (ESPI), Austria

IAC-12.B5.2.8
AUSTRALIAN NATIONAL UNIVERSITY'S (ANU) MT STROMLO OBSERVATORY – TRANSLATING BETWEEN ASTRONOMICAL INSTRUMENTATION TECHNOLOGIES AND SPACE SYSTEMS APPLICATIONS VIA AN INTEGRATED APPLICATIONS GROUP
Naomi Mathers, Victorian Space Science Education Centre, Australia

IAC-12.B5.2.9
DEVELOPING AN INTEGRATED SAR INTERFEROMETRY AND GNSS SERVICE FOR PRECISION SURVEY AS AN OPERATIONAL INTEGRATED APPLICATION
Alan Fromberg, Systems Engineering & Assessment Ltd, United Kingdom

IAC-12.B5.2.10
PLANNING AND SCHEDULING SERVICES TO SUPPORT FACILITY MANAGEMENT IN THE ISS
Riccardo De Benedictis, Italian National Research Council - CNR, Italy

IAC-12.B5.2.11
CUBESATS FOR MEDICAL DATA TRANSMISSION BETWEEN REMOTE AREAS AND EUROPE TO QUICK DISEASE DIAGNOSES
Riccardo Lombardi, Politecnico di Milano, Italy

B6. SPACE OPERATIONS SYMPOSIUM

Coordinator: *H. Neal Hammond, Space Bridges, LLC, United States; Manfred Warhaut, European Space Agency (ESA), Germany;*

B6.1. Human Spaceflight Operations

October 4 2012, 15:15 — TS08 (Rigel, Hall 3)

Chairs: *Michael McKay, European Space Agency (ESA), Germany; Mario Cardano, Thales Alenia Space France, Italy;*
Rapporteur: *Helmut Luttmann, Astrium Space Transportation, Germany;*

IAC-12.B6.1.1
ASI PARTICIPATION TO THE INTERNATIONAL SPACE STATION OPERATION SUPPORT FOR THE MPLM AND PMM SUSTAINING ENGINEERING
Ilenya Salvoni, Altec S.p.A., Italy

IAC-12.B6.1.2
SPACE-TO-GROUND COMMUNICATION: ORIGINS AND DEVELOPMENT
Antonio Fortunato, HE Space, Germany

IAC-12.B6.1.3
FROM JOHANNES KEPLER TO EDOARDO AMALDI – THE ATV MISSIONS ARE NOT REALLY A ROUTINE MATTER
Massimo Cislaghi, ESA, The Netherlands

IAC-12.B6.1.4
CHARACTERIZATION AND EVALUATION OF MANNED SPACECRAFT OPERABILITY FACTORS
Christine Fanchiang, University of Colorado, United States

IAC-12.B6.1.5
FLUID SCIENCE LABORATORY ON BOARD ISS: TWO YEARS OF SUCCESSFUL OPERATIONS
Dario Castagnolo, Telespazio, Italy

IAC-12.B6.1.6
A PROPOSAL OF VISUAL GUIDELINES FOR ON-BOARD PROCEDURES
Manuela Aguzzi, Space Applications Services N.V., Germany

IAC-12.B6.1.7
THE SOLAR INSTRUMENT: LESSONS LEARNT AND ON-ORBIT ENGINEERING IMPROVEMENTS
Annamaria Piras, Thales Alenia Space Italia, Italy

IAC-12.B6.1.8
COMMERCIAL CREW INDEPENDANT SAFETY AND CERTIFICATION ADVISORY
Alan T. DeLuna, United States

IAC-12.B6.1.9
ORION MULTIPURPOSE CREW VEHICLE EXPLORATION FLIGHT TEST OBJECTIVES
Laurence Price, Lockheed Martin (Space Systems Company), United States

IAC-12.B6.1.10
MEDICAL OPERATIONS DURING EXPLORATION-CLASS MISSIONS: CHALLENGES AND INNOVATION STRATEGIES
Annie Martin, Ecole Polytechnique de Montreal, Canada

B6.2. New Operations Concepts and Commercial Space Operations

October 5 2012, 09:00 — TS08 (Rigel, Hall 3)

Chairs: *Pierre LODS, Centre National d'Etudes Spatiales (CNES), France; Thomas Kuch, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*
Rapporteur: *Akira Tsuchida, Earth-Track Corporation, Japan;*

IAC-12.B6.2.1
EVOLUTION OF SATELLITE OPERATIONS COMPLEXITY FROM SYMPHONIE TO GALILEO
Annick SYLVESTRE-BARON, Centre National d'Etudes Spatiales (CNES), France

IAC-12.B6.2.2
APPLYING SPACECRAFT OPERATIONS COMPLEXITY METRICS TO SPACECRAFT DESIGN TO REDUCE OPERATIONS COST
Kathleen Coderre, Lockheed Martin Corporation, United States

IAC-12.B6.2.3
AUTOMATIC PLANNING TECHNOLOGY OF AREOSPACE CONTROL MISSION
WEI GAO, Beijing Aerospace Control Center, China

IAC-12.B6.2.4
TAK - TELE ASSISTANCE KIT
Marco Panighini, Alenia Aeronautica, Italy

IAC-12.B6.2.5
INTELLECTUAL SYSTEMS OF DECISION-MAKING SUPPORT DURING THE CONTROL OF AUTOMATIC SPACE VEHICLES
Nikolay Sokolov, Central Research Institute of Machine Building (FSUE/TSNIIMASH), Russia

IAC-12.B6.2.6
REDUCING COST IN OPERATIONAL PROCEDURE DESIGN, VALIDATION, AND LONG TERM MAINTENANCE.
Christian Laroque, VEGA Space GmbH, Germany

IAC-12.B6.2.7
A COST EFFECTIVE APPROACH FOR THE MANAGEMENT AND MAINTENANCE OF THE OPERATIONAL PHASE OF COSMO-SKYMED SECONDA GENERAZIONE TOGETHER WITH THE FIRST GENERATION SYSTEM
Gianni Casonato, Italian Space Agency (ASI), Italy

IAC-12.B6.2.8
PLEIADES PROGRAMMING ACTIVITIES: SINCE SPOT1, A CONTINUOUS IMPROVEMENT OF THE ANSWER TO USERS NEEDS
Hélène RUIZ, Centre National d'Etudes Spatiales (CNES), France

IAC-12.B6.2.9
PREPARATION, HANDOVER, AND CONDUCTION OF PRISMA MISSION OPERATIONS AT GSOC
Ralf Faller, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B6.2.10
LEOP OPERATIONS FOR GEOSTATIONARY COMMUNICATIONS SPACECRAFT INJECTED INTO A SUB-GEOSYNCHRONOUS TRANSFER ORBIT
Anuradha Prakasha, Indian Space Research Organization (ISRO), India

IAC-12.B6.2.11
A FAULT DETECTION ISOLATION AND RECOVERY SYSTEM (FDIR) FOR AUTONOMOUS SATELLITE OPERATION
Marco Schmidt, University Wuerzburg, Germany

IAC-12.B6.2.13
CCSDS/ESA STANDARD TEST STATION FOR CHECKOUT OPERATIONS OF CHANDRAYAAN-1, W2M AND HYLAS MISSIONS
Chandra Mohan KSSE, ISRO Satellite Centre (ISAC), India

IAC-12.B6.2.14
A.I. MULTI-AGENT SYSTEMS FOR ROBUST DECISION MAKING IN SPACE OPERATION
Marti Minoves, International Space University (ISU), Germany

IAC-12.B6.2.15
EFFICIENT OPERATION CONCEPT VALIDATION USING THE GROUND SYSTEMS TEST AND VALIDATION INFRASTRUCTURE (GSTVI)
Christian Laroque, VEGA Space GmbH, Germany

IAC-12.B6.2.16
ON-GROUND PLANNING FOR AUTONOMOUS ROVER OPERATIONS
Marc Niezette, VEGA Space, Germany

IAC-12.B6.2.17
CONTROL METHODOLOGY OF LARGE-SCALE SPACECRAFT GROUPS IN THE XXI CENTURY
Nikolay Sokolov, Central Research Institute of Machine Building (FSUE/TSNIIMASH), Russia

IAC-12.B6.2.18
MISSION-INDEPENDENT, PROTOCOL-DRIVEN GROUND SOFTWARE: A SYSTEMS ENGINEERING APPROACH TO A MULTI-MISSION "APP-STORE"
Edward Birrane, The Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.B6.2.19
OCCASIONAL TWO STATIONS TRACKING TO IMPROVE ORBIT DETERMINATION ACCURACY FOR GEOSTATIONARY SATELLITE: INDOVISION SCC IN CO-OPERATION WITH LAPAN
Syamsu Rijal, Indonesia

B6.3. Training Relevant for Operations

October 2 2012, 10:15 — TS08 (Rigel, Hall 3)

Chairs: *Paolo Ferri, European Space Agency (ESA), Germany; John Auburn, VEGA Group, United Kingdom;*
Rapporteur: *Lionel Baize, Centre National d'Etudes Spatiales (CNES), France;*

IAC-12.B6.3.1
A TRAINING FRAMEWORK FOR PRIVATE SPACE TRAVEL OPERATIONS
Derek Webber, Spaceport Associates, United States

IAC-12.B6.3.2
PRACTICAL EXERCISES AS PART OF FLIGHT CONTROLLER TRAINING
Thomas Uhlig, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B6.3.3
MAX - A NEW SYSTEM FOR GROUND STATION OPERATORS TRAINING
Christian Laroque, VEGA Space GmbH, Germany

IAC-12.B6.3.4
NEW CHALLENGES IN OPERATIONS TRAINING SIMULATORS FOR SATELLITE CONSTELLATION MISSIONS
Christian D. Bodemann, VEGA Space GmbH, Germany

IAC-12.B6.3.5
CREW EMERGENCY TRAINING FOR THE COLUMBUS MODULE
Martina Pinni, ALTEC, Italy

IAC-12.B6.3.6
ATV EMERGENCY TRAINING
Liliana Ravagnolo, Altec S.p.A., Italy

IAC-12.B6.3.7
APPLICATION OF VIRTUAL REALITY IN TRAINING ASTRONAUTS FOR SPACE OPERATIONS
An Ming, Astronaut Center of China, China

IAC-12.B6.3.8
FROM TRAINING TO REAL MISSION: SIMULATIONS SUPPORT DURING ATV OPERATIONS
Emiliano Micaloni, Terma A/S, France

IAC-12.B6.3.9
RESEARCH ON THE TRAINING METHOD OF MANUAL RENDEZVOUS AND DOCKING BASED ON COGNITIVE TASK ANALYSIS
Yijing Zhang, China Astronaut Research and Training Center, China

IAC-12.B6.3.10
ASTRONAUT TRAINING DEVELOPMENT & IMPLEMENTATION SYSTEM (ATD) CONTENT MODEL AND MAPPING TO LEARNING OBJECT / METADATA (LOM)
Olivier Lamborelle, Space Applications Services N.V., Germany

IAC-12.B6.3.11
DYNAMIC SATELLITE SOFTWARE SIMULATOR – A TRAINING TOOL
Anuradha Prakasha, Indian Space Research Organization (ISRO), India

B6.4. Flight Control Operations Virtual Forum

October 1 2012, 15:15 — TS19 (Vega, Palacongressi)

Chairs: *Philip Harris, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States; Katja Leuoth, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*

IAC-12.B6.4.1
COLUMBUS MODULE INVOLVEMENT DURING LIMITED POWER SCENARIOS ON THE INTERNATIONAL SPACE STATION
Sinje Steffen, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.B6.4.4
LESSONS LEARNED FROM COMBINING ASTRONAUT TRAINING AND FLIGHT CONTROL OPERATIONS
Mamta Patel Nagaraja, NASA, United States

IAC-12.B6.4.5
LIVING BEYOND EARTH: THE ARCHITECTURAL FEATURES OF HUMAN HABITATS IN EXTREME ENVIRONMENTS OF SPACE AND OTHER PLANETARY SURFACES
Kumar Biswajit Debnath, SOUTHEAST UNIVERSITY, Bangladesh

IAC-12.B6.4.8
SOFTWARE MAINTENANCE & DELIVERY TO SPACE ROBOTICS SYSTEMS
Mario Ciaramicoli, Canadian Space Agency, Canada

C1. ASTRODYNAMICS SYMPOSIUM

Coordinator: *Erick Lansard, Thales Research & Technology, France; Alfred Ng, Canadian Space Agency, Canada;*

C1.1. Guidance, Navigation and Control (1)

October 1 2012, 15:15 — TS01 (Aldebaran, Hall 1)

Chairs: *Fuyuto Terui, Japan Aerospace Exploration Agency (JAXA), Japan; Bernhard Lübke-Ossenbeck, OHB System AG, Germany;*

IAC-12.C1.1.1
A GAUSSIAN PARTICLE FILTER BASED ON DIFFERENTIAL ALGEBRA FOR NONLINEAR FILTERING PROBLEMS IN CELESTIAL MECHANICS
Monica Valli, Politecnico di Milano, Italy

IAC-12.C1.1.2
A RADAU PSEUDOSPECTRAL METHOD-BASED GUIDANCE REENTRY ALGORITHM
Marco Sagliano, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.C1.1.3
CONTROL OF ORIENTATION FOR SPACECRAFT FORMATIONS NEAR THE SUN-EARTH L2 LIBRATION POINT
Rui Qi, Beijing University of Aeronautics and Astronautics, China

IAC-12.C1.1.4
FAILURE SCENARIOS BASED COLLISION AVOIDANCE CONTROL STRATEGIES FOR SATELLITE FORMATION FLYING
Jihe Wang, University of Tokyo, Japan

IAC-12.C1.1.6
SPACE LAUNCHER GUIDANCE BASED ON DISCRETE NONLINEAR MODEL PREDICTIVE CONTROL
Alexandre Vachon, Laval University, Canada

IAC-12.C1.1.7
COUPLED MISSION AND GNC ANALYSIS FOR SPACE ROBOTIC MISSIONS
Andreas Wiegand, Astos Solutions GmbH, Germany

IAC-12.C1.1.8
THOR: A PAYLOAD SEPARATION SIMULATOR TOOL FOR CLUSTER LAUNCHES
Valentino Fabbri, ALMASpace S.r.l., Italy

IAC-12.C1.1.9
OPTIMAL CONTROL OF A CONSTELLATION OF TWO SUN-SYNCHNOROUS MARTIAN ORBITERS
Zhigang Wu, Tsinghua University, China

IAC-12.C1.1.10
RESULTS OF ZENITH-3SL ILV LAUNCH DYNAMICS ANALYSIS FROM AFLOAT SEA LAUNCH PLATFORM
A.V. Novikov, Yuzhnoye State Design Office, Ukraine

IAC-12.C1.1.11
SOLAR SAIL STATION KEEPING OF HIGH-AMPLITUDE VERTICAL LYAPUNOV ORBITS IN SUN-EARTH SYSTEM
Ariadna Farrés, Observatoire de Paris, France

IAC-12.C1.1.12
INFLUENCE OF SENSOR AND ACTUATOR ERRORS ON TWO IMPULSIVE SATELLITE FORMATION CONTROL METHODS
Frederik Johannes de Bruijn, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.C1.1.13
STABILISATION OF THE HYPERBOLIC EQUILIBRIUM OF HIGH AREA-TO-MASS SPACECRAFT
Camilla Colombo, University of Strathclyde, United Kingdom

C1.2. Guidance, Navigation and Control (2)

October 2 2012, 10:15 — TS01 (Aldebaran, Hall 1)

Chairs: *Eberhard Gill, Delft University of Technology, The Netherlands; James O'Donnell, National Aeronautics and Space Administration (NASA)/Goddard Space Flight Center, United States;*
Rapporteur: *Michael Ovchinnikov, Keldysh Institute of Applied Mathematics, RAS, Russia;*

IAC-12.C1.2.1
ATV GNC FOR RENDEZ-VOUS AND DOCKING: PRINCIPLES, TECHNOLOGY AND EXPERIENCE
Olivier Mongrard, European Space Agency (ESA), The Netherlands

IAC-12.C1.2.2
ROBUST CONTROLLER DESIGN METHODOLOGY FOR PLANETARY LANDING SYSTEM CONSIDERING 6 DEGREES OF FREEDOM
Satoshi Ueda, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C1.2.3
RELATIVE STATE VECTOR GENERATION ALGORITHM FOR ON-BOARD NAVIGATION FOR RENDEZVOUS DOCKING EXPERIMENT
Tintu Chacko, ISRO Satellite Centre (ISAC), India

IAC-12.C1.2.4
SPACECRAFT POSITION AND ATTITUDE MANEUVERS USING FINITE-TIME CONTROL TECHNIQUE
Shunan Wu, Research Center of Satellite Technology, Harbin Institute of Technology, China

IAC-12.C1.2.5
DISTRIBUTED CONTROL OF FRACTIONATED SPACECRAFT BASED ON CYCLIC PURSUIT STRATEGIES
Min Hu, Academy of Equipment, China

IAC-12.C1.2.7
EXPERIENCE USING AN AUTOMATIC RENDEZVOUS / CAPTURE TEST FACILITY FOR GNC V&V IN A DYNAMIC ENVIRONMENT
Francisco Caballero, Instituto Nacional de Tecnica Aeroespacial (INTA), Spain

IAC-12.C1.2.8
DYNAMIC COORDINATION OF A MULTI-MANIPULATOR PLATFORM
Silvio Cocuzza, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.C1.2.9
GLOBAL LOW-THRUST GUIDANCE SCHEME FOR DISAGGREGATED SPACECRAFT ARCHITECTURES
Pini Gurfil, Technion, I.I.T., Israel

IAC-12.C1.2.11
PRECISE POSITION CONTROL FOR THE PINPOINT TOUCHDOWN TO THE ASTEROID SURFACE
Yuya Mimasu, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C1.2.12
A NOVEL NONLINEAR CONTROL APPROACH FOR RENDEZVOUS AND DOCKING MANEUVERING
Giuseppe Di Mauro, Politecnico di Milano, Italy

IAC-12.C1.2.13
FLIGHT TESTING OF THE TRIDAR RENDEZVOUS AND DOCKING SENSOR ON THE SPACE SHUTTLE
Stephane Ruel, Neptec Design Group, Canada

C1.3. Guidance, Navigation and Control (3)

October 3 2012, 10:15 — TS01 (Aldebaran, Hall 1)

Chairs: *Arun Misra, McGill University, Canada; Benedicte Escudier, SUPAERO- Ecole Nationale Supérieure de l'Aéronautique et de l'Espace, France;*
Rapporteur: *Daniel Scheeres, University of Colorado, United States;*

IAC-12.C1.3.1
THE PRISMA FORMATION FLYING MISSION: GNC CAPABILITIES AND FUTURE OPPORTUNITIES
Per Bodin, OHB Sweden, Sweden

IAC-12.C1.3.2
LIDAR-BASED TERRAIN SAFETY ASSESSMENT FOR SPACECRAFT LANDING
Yeonha Hwang, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of

IAC-12.C1.3.3
CLUSTER-KEEPING ALGORITHMS FOR THE SAMSON PROJECT
Pini Gurfil, Technion, I.I.T., Israel

IAC-12.C1.3.4
VALIDATION ON FLIGHT DATA OF A NOVEL RELATIVE NAVIGATION APPROACH FOR SPACEBORNE GPS RECEIVERS FLYING IN FORMATION OVER LARGE BASELINES
Michele Grassi, University of Naples "Federico II", Italy

IAC-12.C1.3.5
TANSAT POINTING STRATEGY AND ATTITUDE GUIDANCE LAW
Yonghe ZHANG, Shanghai Institute of Microsystem and Information Technology, China

IAC-12.C1.3.6
TERRAIN RECONSTRUCTION METHOD BASED ON WEIGHTED ROBUST LINEAR ESTIMATION THEORY FOR SMALL BODY EXPLORATION
Zhengshi Yu, School of Aerospace Engineering, Beijing Institute of Technology, China

IAC-12.C1.3.7
COMPARISON OF TWO CONTROL STRATEGIES FOR UNISAT5 ATTITUDE CONTROL SYSTEM
Paride Testani, Scuola Ingegneria Aerospaziale, Italy

IAC-12.C1.3.8
AUTONOMOUS GNC SYSTEM TO ENHANCE SCIENCE OF ASTEROID MISSIONS
Jesus Gil-Fernandez, GMV Aerospace & Defence SAU, Spain

IAC-12.C1.3.10
PRELIMINARY FLIGHT RESULT AND ARCHITECTURE OF SDS-4 ATTITUDE CONTROL SUBSYSTEM
Naomi Murakami, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C1.3.11
COLLABORATIVE GUIDANCE NAVIGATION AND CONTROL OF DISAGGREGATED SPACECRAFT IN THE PROXIMITY OF MINOR BODIES
Massimo Vetrisano, University of Strathclyde, United Kingdom

IAC-12.C1.3.12
PROPELLANTLESS RENDEZ-VOUS OF QB50 NANOSATELLITES
Lamberto Dell'Elce, University of Liège, Belgium

IAC-12.C1.3.13
THE STUDY ON SATELLITE ATTITUDE DETERMINATION METHOD USING GPS SIGANL STRENGTH
Takayuki HOSONUMA, University of Tokyo, Japan

C1.4. Mission Design, Operations and Optimisation (1)

October 2 2012, 15:15 — TS01 (Aldebaran, Hall 1)

Chairs: *Nicolas Bérend, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France; Michèle Lavagna, Politecnico di Milano, Italy;*
Rapporteur: *Kathleen Howell, Purdue University, United States;*

IAC-12.C1.4.1
SYMPOSIUM KEYNOTE: EXPANSION OF OUR SPHERE OF ACTIVITY WITH ASTRODYNAMICS AND CUTTING EDGE TECHNOLOGY
Junichiro Kawaguchi, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C1.4.2
HYBRID LOW-THRUST TRANSFERS TO EIGHT-SHAPED ORBITS FOR POLAR OBSERVATION
Jeannette Heiligers, University of Strathclyde, United Kingdom

IAC-12.C1.4.3
ENHANCING PLANETARY EXPLORATION BY USING HYBRID PROPULSION TRANSFERS
Francesco Topputo, Politecnico di Milano, Italy

IAC-12.C1.4.4
PRELIMINARY STUDY OF THE TRAJECTORY FROM THE EARTH TO THE MOON WITH LOW THRUST FOR THE SMALL SCIENTIFIC SPACECRAFT, DESTINY
Masaki Nakamiya, ISAS/JAXA, Japan

IAC-12.C1.4.5
LOW-THRUST INTERPLANETARY TRANSFER DESIGN BY EVOLVING FREEFORM ARTIFICIAL NEURAL NETWORKS
Shuguang Li, Northwestern Polytechnical University, China

IAC-12.C1.4.6
EXTENSION OF FINITE PERTURBATIVE ELEMENTS FOR MULTI-OBJECTIVE HYBRID PROPULSION TRANSFER OPTIMISATION
Federico Zuiani, University of Glasgow, Space Advanced Research Team, United Kingdom

IAC-12.C1.4.7
MISSION ANALYSIS AND ORBIT CONTROL STRATEGY FOR A SPACE MISSION ON A POLAR TUNDRA ORBIT
Valentina Boccia, Università degli Studi di Napoli "Federico II", Italy

IAC-12.C1.4.8
HIGH AREA-TO-MASS RATIO HYBRID PROPULSION EARTH TO MOON TRANSFERS IN THE CR3BP
Willem van der Weg, University of Strathclyde, United Kingdom

IAC-12.C1.4.9
MISSION DESIGN AND ANALYSIS FOR THE DEIMOS-2 EARTH OBSERVATION MISSION
Stefania Cornara, Deimos Space S.L., Spain

IAC-12.C1.4.10
PARTICLE SWARM OPTIMIZATION OF ASCENDING TRAJECTORIES OF MULTISTAGE ROCKETS
Mauro Pontani, University of Rome "La Sapienza", Italy

IAC-12.C1.4.11
OPTIMIZATION OF LUNAR SOFT LANDING TRAJECTORY BASED ON HYBRID METHOD
Tao Cao, Shanghai Aerospace Control Engineering Institute, China

IAC-12.C1.4.12
CONSTELLATIONS OF INCLINED HELIOTROPIC ORBITS FOR ENHANCED EARTH COVERAGE
Camilla Colombo, University of Strathclyde, United Kingdom

C1.5. Mission Design, Operations and Optimisation (2)

October 3 2012, 15:15 — TS01 (Aldebaran, Hall 1)

Chairs: *David B. Spencer, The Pennsylvania State University, United States; Yury Razoumny, COSMOEXPORT Aerospace Research Agency, Russia;*
Rapporteur: *Johannes Schoenmaekers, European Space Operations Centre, Germany;*

IAC-12.C1.5.1
DESIGN OF TRAJECTORIES FOR CONTINUOUS POLAR EARTH OBSERVATION IN THE EARTH-MOON SYSTEM
Matteo Ceriotti, University of Glasgow, United Kingdom

IAC-12.C1.5.2
INNOVATIVE METHOD OF CONSTELLATION DESIGN TO ENABLE NEW ARISING APPLICATIONS BASED ON SPACE-AIRBORNE BISTATIC SAR
Maria Daniela Graziano, Second University of Naples, Italy

IAC-12.C1.5.3
OPTIMIZATION OF SATELLITE CONSTELLATION RECONFIGURATION MANEUVERS
Leonid Appel, Technion, I.I.T., Israel

IAC-12.C1.5.4
A PREDICTIVE GUIDANCE SCHEME FOR SOFT LANDING OF A LUNAR MODULE
Mathavaraj S, ISRO Satellite Centre (ISAC), India

IAC-12.C1.5.5
AN EXTENSION AND NUMERICAL ANALYSIS OF THE HOHMANN SPIRAL TRANSFER
Steven Owens, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.C1.5.6
MESSENGER AT MERCURY: FROM ORBIT INSERTION TO EXTENDED MISSION
James McAdams, JHU Applied Physics Laboratory, United States

IAC-12.C1.5.7
ORBIT SELECTION CRITERIA FOR OPTICAL DUAL-USE EARTH OBSERVATION SATELLITES
Alessio Di Salvo, NEXT Ingegneria dei Sistemi S.p.A., Italy

IAC-12.C1.5.8
OPTIMAL TRAJECTORY DESIGN FOR THE LUNAR VERTICAL LANDING
Dong-Hyun Cho, KARI, Korea, Republic of

IAC-12.C1.5.9
OPTIMAL LONG-DURATION LOW-THRUST TRANSFERS BETWEEN LIBRATION POINT ORBITS
Richard Epenoy, Centre National d'Etudes Spatiales (CNES), France

IAC-12.C1.5.10
OPTIMAL SPACECRAFT TRAJECTORIES FOR FLIGHT TO ASTEROID APOPHIS WITH LOW THRUST
Vyacheslav V. Ivashkin, Keldysh Institute of Applied Mathematics, RAS, Russia

IAC-12.C1.5.11
A NOVEL APPROACH TO THE GENERATION OF MULTIPLE GRAVITY ASSIST TRAJECTORIES
Pierpaolo Pergola, Alta, Italy

IAC-12.C1.5.12
LOW ENERGY TRAJECTORY OPTIMIZATION FOR CE-2'S EXTENDED MISSION AFTER 2012
Li Mingtao, Center for Space Science and Applied Research, China

IAC-12.C1.5.13
GRAVITATIONAL CAPTURE OPPORTUNITIES FOR ASTEROID RETRIEVAL MISSIONS
Joan Pau Sanchez Cuartielles, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

C1.6. Orbital Dynamics (1)

October 4 2012, 10:15 — TS01 (Aldebaran, Hall 1)

Chairs: *Rock Jeng-Shing Chern, University of Science & Technology, Taiwan, China; Othon Winter, UNESP - Univ Estadual Paulista, Brazil;*
Rapporteur: *Josep J. Masdemont, Universitat Politecnica de Catalunya (UPC), Spain;*

IAC-12.C1.6.1
COUPLING ATTITUDE AND ORBITAL MOTION OF EXTENDED BODIES IN THE RESTRICTED CIRCULAR 3-BODY PROBLEM: A NOVEL STUDY ON EFFECTS AND POSSIBLE EXPLOITATIONS
Davide Guzzetti, Politecnico di Milano, Italy

IAC-12.C1.6.2
LAGRANGIAN COHERENT STRUCTURES IN VARIOUS MAP REPRESENTATIONS FOR APPLICATION TO MULTI-BODY GRAVITATIONAL REGIMES
Cody Short, Purdue University, United States

IAC-12.C1.6.3
SOLAR SAIL EQUILIBRIUM POSITIONS AND TRANSFER TRAJECTORIES CLOSE TO A TROJAN ASTEROID
Marco Giancotti, University of Rome "La Sapienza", Italy

IAC-12.C1.6.4
ORBITAL DYNAMICS OF A SOLAR SAIL NEAR L1 AND L2 IN THE ELLIPTIC HILL PROBLEM
Ariadna Farrés, Observatoire de Paris, France

IAC-12.C1.6.5
METHODOLOGY AND ESTIMATION COSTS FOR PROXIMITY MANEUVERING SPACECRAFT FORMATIONS IN THE VICINITY OF LIBRATION POINTS
Laura Garcia-Taberner, Universitat de Girona, Spain

IAC-12.C1.6.7
CAPTURING SMALL ASTEROIDS INTO THE SUN-EARTH LAGRANGIAN L1, L2 POINTS FOR MINING PURPOSES
Neus Lladó, Universitat Politecnica de Catalunya (UPC), Spain

IAC-12.C1.6.8
TRANSFER AND STABILIZATION IN L2 SMALL HALO ORBITS VIA LOW CONTINUOUS THRUST
Keita Tanaka, University of Tokyo, Japan

IAC-12.C1.6.9
FAST NUMERICAL COMPUTATION OF LISSAJOUS AND QUASI-HALO LIBRATION POINT TRAJECTORIES AND THEIR INVARIANT MANIFOLDS
Josep-Maria Mondelo, Universitat Autonoma de Barcelona, Spain

IAC-12.C1.6.10
ENERGY-ACCOMMODATION COEFFICIENT AND DRAG COEFFICIENT MODELING FOR STELLA AND STARLETTE
Piyush Mehta, University of Kansas, United States

IAC-12.C1.6.11
NON-LINEAR BAYESIAN ORBIT DETERMINATION: ANGLE MEASUREMENTS
Kohei Fujimoto, University of Colorado, United States

IAC-12.C1.6.12
TWO-LINE ELEMENT SETS – PRACTICE AND USE
David Vallado, Center for Space Standards and Innovation, United States

IAC-12.C1.6.13
ORBIT DETERMINATION USING ISON OPTICAL DATA: AN INDEPENDENT ANALYSIS
Paul Cefola, University at Buffalo, United States

C1.7. Orbital Dynamics (2)

October 4 2012, 15:15 — TS01 (Aldebaran, Hall 1)

Chairs: *Jean-Paul Berthias, Centre National d'Etudes Spatiales (CNES), France; Filippo Graziani, University of Rome "La Sapienza", Italy;*
Rapporteur: *Weihua Zhang, National University of Defense Technology, China;*

IAC-12.C1.7.1
LOW-ENERGY EARTH-MOON TRANSFERS INVOLVING MANIFOLDS VIA ISOMORPHIC MAPPING
Mauro Pontani, University of Rome "La Sapienza", Italy

IAC-12.C1.7.2
REPRESENTATIONS OF HIGHER-DIMENSIONAL POINCARE MAPS WITH APPLICATIONS TO SPACECRAFT TRAJECTORY DESIGN
Amanda Haapala, Purdue University, United States

IAC-12.C1.7.3
PROGRESS IN SOLVING THE "UNSOLVED PROBLEMS IN SATELLITE THEORY"
David Finkleman, American Institute of Aeronautics and Astronautics (AIAA), United States

IAC-12.C1.7.4
SPATIAL APPROACHES TO MOONS FROM RESONANCE RELATIVE TO INVARIANT MANIFOLDS
Rodney Anderson, Jet Propulsion Laboratory - California Institute of Technology, United States

IAC-12.C1.7.5
LOW-ENERGY CISLUNAR AND TRANS-LUNAR TRANSFER TRAJECTORIES FROM THE VIEW OF LIBRATION POINTS
Ming Xu, Beijing University of Aeronautics and Astronautics, China

IAC-12.C1.7.6
ANALYTICAL PERTURBATIVE THEORIES OF MOTION IN HIGHLY INHOMOGENEOUS GRAVITATIONAL FIELDS
Marta Ceccaroni, University of Strathclyde, United Kingdom

IAC-12.C1.7.7
AVERAGED MODEL TO ANALYZE THE LONG-TERM ORBITAL EVOLUTION OF THE BINARY ASTEROID
Xiaodong Liu, Tsinghua University, China

IAC-12.C1.7.8
ANALYTICAL SOLUTION OF THE THIRD-BODY PROBLEM FOR HIGHLY ELLIPTICAL ORBITS BASED ON THE TIME-DEPENDENT LIE-DEPRIT TRANSFORM
Guillaume LION, University of Nice-Sophia Antipolis, CNRS, Observatoire de la Cote d'Azur, France

IAC-12.C1.7.9
STUDY OF RESONANCES DUE TO THIRD BODY PERTURBATIONS IN THE DYNAMICS OF MEOS
Letizia Stefanelli, University of Nice-Sophia Antipolis, Observatoire de la Cote d'Azur, CNES, France

IAC-12.C1.7.10
OPTIMAL LOW-COST TRANSFER TRANSFER TO L4 AND L5 LAGRANGIAN POINTS BASED ON THE G-FAMILY OF PERIODIC ORBITS
Elbert E.N. Macau, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil

IAC-12.C1.7.11
A NEW DESCRIPTION OF PLANET-TO-PLANET TRANSFER IN ALTERNATING ROTATING COORDINATE WITH APPLICATIONS
Jun Matsumoto, The University of TOKYO, Graduate school, Japan

IAC-12.C1.7.12
EFFECTS OF THE ATMOSPHERIC DRAG IN CLOSE APPROACHES FOR A CLOUD OF PARTICLES
Antonio Prado, National Institute for Space Research - INPE, Brazil

IAC-12.C1.7.13
HIGH-ACCURACY ASYMMETRIC CIRCUMLUNAR FREE RETURN TRAJECTORY DESIGN WITH HIGH-LATITUDE LANDING FOR CHINA
Shing Yik Yim, Tsinghua University, China

C1.8. Attitude Dynamics (1)

October 5 2012, 09:00 — TS01 (Aldebaran, Hall 1)

Chairs: *Gianmarco Radice, University of Glasgow, United Kingdom; Kazuya Yoshida, Tohoku University, Japan;*
Rapporteur: *Simei Ji, Beijing Institute of Technology, China;*

IAC-12.C1.8.1
COUPLED ORBIT AND ATTITUDE DYNAMICS FOR A SPACECRAFT COMPRISED OF MULTIPLE BODIES IN EARTH-MOON HALO ORBITS
Amanda Knutson, Purdue University, United States

IAC-12.C1.8.2
AOCS SCIENCE MODE DESIGN FOR ESA'S EUCLID MISSION
Gianfranco Sechi, Thales Alenia Space Italia, Italy

IAC-12.C1.8.3
ZERO-PROPELLANT ATTITUDE MANEUVER PATH PLANNING OF SPACE STATION BASED ON SIMPLE GIMBAL CONTROL MOMENT GYROSCOPES
Hai-bing Huang, National University of Defense Technology, China

IAC-12.C1.8.4
ROBUSTNESS ANALYSES OF ATTITUDE SLEW MANOEUVRES FOR SPINNING PENETRATOR SPACECRAFT
Robin Raus, Surrey Space Centre, University of Surrey, United Kingdom

IAC-12.C1.8.5
REX-J (ROBOT EXPERIMENT ON ISS/JEM) TO DEMONSTRATE ASTRONAUT SUPPORT ROBOT - RESULT OF THE IN-ORBIT CHECK OUT OF THE REX-J MISSION
Mitsushige Oda, JAXA, Japan

IAC-12.C1.8.6
DEVELOPMENT OF SUN-POINTING MAGNETIC ATTITUDE CONTROL SYSTEM FOR CXBN CUBESAT
Paride Testani, Scuola Ingegneria Aerospaziale, Italy

IAC-12.C1.8.7
DYNAMIC MODELLING AND CONTROL OF FLEXIBLE ROBOTIC SPACE MANIPULATORS WITH TELESCOPING BOOMS
Alex Walsh, McGill University, Canada

IAC-12.C1.8.8
FIRST IN-ORBIT RESULTS OF THE PLEIADES CMG-BASED ATTITUDE CONTROL SYSTEM
Charles Koeck, EADS Astrium, France

IAC-12.C1.8.9
SPACE MANIPULATOR CONTROL FOR THE DYMAFLEX FLIGHT EXPERIMENT
Nicholas D'Amore, University of Maryland, College Park, United States

IAC-12.C1.8.10
INVESTIGATION OF ON-ORBIT ELECTODYNAMIC TETHER DEPLOYMENT BY GROUND EXPERIMENT AND NUMERICAL SIMULATION USING A DETAILED FRICTION MODEL
Mitsuhisa Baba, Waseda University, Japan

IAC-12.C1.8.11
EXPERIMENTAL ORBITAL RENDEZVOUS OPERATIONS VIA VISUAL BASED TECHNIQUES
Marco Sabatini, Università di Roma "La Sapienza", Italy

IAC-12.C1.8.12
PATH PLANNING OF EXPERIMENTAL MODULE TRANSFER FOR MINIMIZING ATTITUDE DISTURBANCE OF SPACE STATION
Yi Wang, National University of Defense Technology, China

IAC-12.C1.8.13
A SENSITIVITY ANALYSIS APPROACH IN THE DESIGN OF THE ATTITUDE CONTROL SYSTEM OF SMALL SATELLITES
Marius STOIA-DJESKA, Politechnic University of Bucharest, Romania

C1.9. Attitude Dynamics (2)

October 5 2012, 14:00 — TS01 (Aldebaran, Hall 1)

Chairs: *Anna Guerman, CAST - Centre for Aerospace Science and Technologies, University of Beira Interior, Portugal; Hyochoong Bang, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of;*
Rapporteur: *Amalia Ercoli Finzi, Politecnico di Milano, Italy;*

IAC-12.C1.9.1
NEURAL-NETWORK-BASED WIDE-FOV CMOS SUN SENSOR
Michele Grassi, University of Naples "Federico II", Italy

IAC-12.C1.9.2
PRACTICAL APPROACH FOR QUICK ATTITUDE MANEUVER OF SPACECRAFT WITH ACTUATOR SATURATION
Hyosang Yoon, Satrec Initiative, Korea, Republic of

IAC-12.C1.9.3
SDS-4 ATTITUDE CONTROL SYSTEM: FIRST FLIGHT RESULTS OF ATTITUDE CONTROL RESPONSE
Yuta Nakajima, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C1.9.4
DYNAMICS OF A TETHER CONNECTED TO AN IRREGULAR SHAPED CELESTIAL BODY
Mohammad J. Mashayekhi, McGill University, Canada

IAC-12.C1.9.5
RACS QFR ALGORITHM FOR VEGA FPSA PROGRAM
Giovanni Cuciniello, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C1.9.6
DUAL ATTITUDE AND PARAMETER ESTIMATION OF PASSIVELY MAGNETICALLY STABILIZED SPACECRAFT
Roland Burton, Stanford University & NASA Ames Research Center, United States

IAC-12.C1.9.7
ATTITUDE MOTION PLANNING FOR A SPIN STABILISED DISK SAIL
Craig Maclean, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.C1.9.8
CONTROLLABILITY OF PROPELLANT-FREE ATTITUDE CONTROL SYSTEM FOR SPINNING SOLAR SAIL USING THIN-FILM REFLECTIVITY CONTROL DEVICES CONSIDERING ARBITRARY SAIL DEFORMATION
Ryu Funase, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C1.9.10
COUPLED ORBIT AND ATTITUDE DYNAMICS OF A RECONFIGURABLE SPACECRAFT WITH SOLAR RADIATION PRESSURE
Andreas Borggräfe, University of Strathclyde, United Kingdom

IAC-12.C1.9.11
ATTITUDE DETERMINATION OF ABOUT ONE DEGREE ACCURACY USING ONLY MAGNETOMETER DATA IN MEGHA-TROPIQUES
Ritu Karidhal, ISRO Satellite Centre (ISAC), India

IAC-12.C1.9.12
DEVELOPMENT, COMPLEX INVESTIGATION, LABORATORY AND FLIGHT TESTING OF THE MAGNETO-GYROSCOPIC ACS FOR THE MICROSATELLITE
Stepan Tkachev, Keldysh Institute of Applied Mathematics, RAS, Russia

IAC-12.C1.9.13
OPTIMAL ATTITUDE MANEUVER PATH PLANNING FOR SPACECRAFT UNDER COMPLEX GEOMETRY CONSTRAINTS
Qian Zhao, National University of Defense Technology, China

C2. MATERIALS AND STRUCTURES SYMPOSIUM

Coordinator: *Constantinos P. Stavrinidis, European Space Agency (ESA), The Netherlands; Pavel M. Trivailo, Royal Melbourne Institute of Technology (RMIT), Australia;*

C2.1. Space Structures 1 - Development and Verification (Space Vehicles and Components)

October 1 2012, 15:15 — TS07 (Regulus, Hall 3)

Chairs: *Alwin Eisenmann, IABG Industrieanlagen - Betriebsgesellschaft mbH, Germany; Andreas Rittweger, Astrium Space Transportation, France;*
Rapporteur: *Jean-Alain Massoni, Thales Alenia Space France, France;*

IAC-12.C2.1.1
SIMULATION OF VEGA DYNAMIC ENVIRONMENT BY USING PROPELLANT COMPLEX CHARACTERIZATION
Preve Andrea, AVIO S.p.A., Italy

IAC-12.C2.1.2
DESIGN OF A COPV FOR LIQUID STORABLE PROPELLANTS OF 4TH STAGE VEGA LAUNCHER
Preve Andrea, AVIO S.p.A., Italy

IAC-12.C2.1.3
PRACTICAL APPLICATION OF DIC IN FATIGUE AND FRACTURE TOUGHNESS TESTING
Fawad Tariq, Pakistan Space and Upper Atmosphere Research Commission, Pakistan

IAC-12.C2.1.4
A RESEARCH ON SHOCK PREDICTION METHOD CORRELATED WITH FORMOSAT-2 SATELLITE PYRO-SHOCK TEST RESULTS
Chi-Wei Chou, Taiwan, China

IAC-12.C2.1.5
DEVELOPMENT OF A STRUCTURAL MODEL FOR KOREAN LUNAR EXPLORER
Taek-Joon Son, Korean Air, Korea, Republic of

IAC-12.C2.1.6
STANDARD FEM VALIDATION CHECKS AND QUALITY OF RESPONSE PREDICTION
Guglielmo Aglietti, University of Southampton, United Kingdom

IAC-12.C2.1.8
NOVEL TECHNOLOGIES AND NEW METHODOLOGY FOR MEASURING THE CONTAMINATION OF (SEMI) VOLATILE ORGANIC COMPOUNDS FROM MATERIALS AND ENVIRONMENTS.
Caroline Widdowson, United Kingdom

IAC-12.C2.1.9
POST-FLIGHT ANALYSIS OF THE RECOVERED HAYABUSA HEATSHIELD AND RESULTS FROM AIRBORNE OBSERVATION
Tetsuya Yamada, ISAS&JSPEC/JAXA, Japan

IAC-12.C2.1.10
INSTRUMENTATION OF THE EXPERT FLAP FOR WIND TUNNEL TESTING AND EVALUATION OF TEST RESULTS
Thomas Thiele, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.C2.1.11
EXPERIMENTAL INVESTIGATION OF THE EMISSIVITY OF THE EXPERT FLAP IN SCIROCCO PLASMA WIND TUNNEL TESTS
Carlo Purpura, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C2.1.12
DESIGN CONSIDERATIONS FOR SOLID ROCKET BOOSTER FLEX NOZZLE HARDWARE
Atha Ur Rahman Khan, Indian Space Research Organization (ISRO), India

IAC-12.C2.1.13
VV01 - LARES SYSTEM DEVELOPMENT AND VERIFICATION
Alessandro Bursi, CGS S.p.A.Compagnia Generale per lo Spazio, Italy

IAC-12.C2.1.14
PREDICTION OF TRANSIENT SKIN TEMPERATURE OF HIGH SPEED VEHICLES THROUGH CFD
Muhammad-Nauman Qureshi, Pakistan

IAC-12.C2.1.15
NONLINEAR FEEDBACK COMPOSITE CONTROL OF SPACE MANIPULATOR SYSTEM WITH BOUNDED TORQUE INPUTS AND UNCERTAIN PARAMETERS
Jie Liang, China

IAC-12.C2.1.16
THERMO-STRUCTURAL DESIGN OF ULTRA HIGH TEMPERATURE CERAMIC (UHTC) WINGLETS OF A RE-ENTRY SPACE VEHICLE
ROBERTO SCIGLIANO, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C2.1.17
QUALIFICATION TESTS ON THE OPTICAL RETRO-REFLECTORS OF LARES SATELLITE.
Antonio Paolozzi, University of Rome "La Sapienza", Italy

IAC-12.C2.1.18
OPTIMIZATION OF MARTIAN REGOLITH AND ULTRA-HIGH MOLECULAR WEIGHT POLYETHYLENE COMPOSITES FOR RADIATION SHIELDING AND HABITAT STRUCTURES
Milan Barnett, United States

C2.2. Space Structures 2 - Development and Verification (Deployable and Dimensionally Stable Structures)

October 2 2012, 10:15 — TS07 (Regulus, Hall 3)

Chairs: *Paolo Gasbarri, Università di Roma "La Sapienza", Italy; Jean-Alain Massoni, Thales Alenia Space France, France;*
Rapporteur: *Pierre Rochus, CSL, Université de Liège, Belgium;*

IAC-12.C2.2.1
SYMPOSIUM KEYNOTE: 2ND PAOLO SANTINI MEMORIAL LECTURE: PRESSURIZED STRUCTURES FOR SUPPORTING THE HUMAN PRESENCE IN SPACE
Ernesto Vallerani, Associazione Italiana di Aeronautica e Astronautica (AIDAA), Italy

IAC-12.C2.2.2
OPTIMIZATION METHOD ON CONTROLLING THERMAL DEFORMATION OF LARGE SPACE DEPLOYABLE TRUSS STRUCTURES
Shujie Zhang, School of Aerospace and Mechanics, Tongji University, China

IAC-12.C2.2.3
OPERATIONAL MODAL ANALYSIS VIA IMAGE BASED TECHNIQUE OF VERY FLEXIBLE SPACE STRUCTURES
Riccardo Monti, University of Rome "La Sapienza", Italy

IAC-12.C2.2.4
STUDY ON A CALIBRATION METHOD FOR SHAPE CONTROL PARAMETERS OF A SELF-SENSING REFLECTOR ANTENNA EQUIPPED WITH SURFACE ADJUSTMENT MECHANISMS
Hiroaki Tanaka, National Defense Academy, Japan

IAC-12.C2.2.5
THALES ALENIA SPACE FLIGHT HERITAGE IN DEPLOYMENT PREDICTION OF LARGE DEPLOYABLE STRUCTURES
Anne CARPINE, Thales Alenia Space, France

IAC-12.C2.2.6
STRUCTURAL AND DYNAMIC ANALYSIS OF A LONG SELF DEPLOYING ANTENNA FOR JUPITER GANYMEDE ORBITER SUB SURFACE SOUNDER
Marco Pertile, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.C2.2.7
A SIMPLE DEPLOYMENT MECHANISM OF PANEL STRUCTURE FOR MICRO SATELLITE AND ITS VERIFICATION
Yasuyuki Miyazaki, Nihon University, Japan

IAC-12.C2.2.8
CONTROL PARAMETERS TRANSITION DURING DEPLOYING OPERATIONS OF A SPACE FLEXIBLE STRUCTURE VIA MULTI-BODY APPROACH
Marco Sabatini, Università di Roma "La Sapienza", Italy

IAC-12.C2.2.9
STEPWISE DEPLOYMENT OF MEMBRANE SPACE STRUCTURES - ROLLED-UP TOGETHER WITH SUPPORT BOOMS
M.C. Natori, Waseda University, Japan

IAC-12.C2.2.10
EFFECT OF SHAPE IMBALANCE ON SPINNING MEMBRANE DEPLOYMENT FOR SOLAR SAIL
Kengo Shintaku, Tokyo Institute of Technology, Japan

IAC-12.C2.2.11
DESIGN OF DEBRIS REMOVAL MISSIONS PERFORMED BY ROBOTIC GRASPERS
Giovanni B. Palmerini, Universita' di Roma 'La Sapienza', Italy

IAC-12.C2.2.12
BUCKLING DESIGN OF BOOM STRUCTURES BY FEM ANALYSIS
Susanna Laurenzi, Sapienza University Rome, Italy

C2.3. Space Structures - Dynamics and Microdynamics

October 2 2012, 15:15 — TS07 (Regulus, Hall 3)

Chairs: *Peter M. Bainum, Howard University, United States; Ijar M. Da Fonseca, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil;*
Rapporteur: *Harijono Djojodihardjo, Universitas Al Azhar Indonesia, Indonesia;*

IAC-12.C2.3.1
VIBRATION ISOLATION PLATFORM OF CMGS APPLICATION ON SATELLITES WITH THE FLEXIBLE APPENDAGES
Yao Zhang, Beijing Institute of technology(BIT), China

IAC-12.C2.3.2
ANALYSIS OF MICRO-VIBRATION BY HIGH RESOLUTION FORCE SENSING MEASUREMENT TO REDUCE MECHANICAL NOISE
Florian Liebold, Astro- und Feinwerktechnik Adlershof GmbH, Germany

IAC-12.C2.3.3
A GENERAL METHODOLOGY TO STUDY THE TRANSMISSION OF MICRO-VIBRATIONS IN SATELLITES
Marcello Remedia, University of Southampton, United Kingdom

IAC-12.C2.3.4
ANALYSIS AND VERIFICATION OF MICRO-VIBRATIONS ON SATELLITE LEVEL
Robert Engel, OHB System AG, Germany

IAC-12.C2.3.5
BE-FE ACOUSTIC-STRUCTURAL COUPLING ANALYSIS FOR DYNAMIC RESPONSE OF SPACECRAFT COMPOSITE SHELLS
Harijono Djojodihardjo, Universitas Al Azhar Indonesia, Indonesia

IAC-12.C2.3.6
VERY LARGE SPACE STRUCTURES: NON-LINEAR CONTROL AND ROBUSTNESS TO STRUCTURAL UNCERTAINTIES
Paolo Gasbarri, Università di Roma "La Sapienza", Italy

IAC-12.C2.3.7
THE IMPACT OF THE SLOSHING MOTION COMBINED WITH FLEXIBILITY OF SPACECRAFT COMPONENTS IN THE DESIGN OF ATTITUDE AND ORBIT CONTROL SUBSYSTEMS
Ijar M. Da Fonseca, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil

IAC-12.C2.3.8
BENEFITS AND CONSTRAINTS IN REPLACING LOW-EFFICIENCY WATER-COOLED LINEAR POWER AMPLIFIERS BY NEW AIR-COOLED CLASS-D AMPLIFIERS FOR DRIVING VIBRATION TESTING SYSTEMS
Durval Zandonadi Jr., Instituto Nacional de Pesquisas Espaciais (INPE), Brazil

IAC-12.C2.3.9
CUMULATIVE MEASUREMENT ERRORS FOR DYNAMIC TESTING OF SPACE FLIGHT HARDWARE
Susan Winnitoy, L-3 Communications, United States

IAC-12.C2.3.10
NEW OPTIMIZATION APPROACH FOR MULTIPLE DYNAMIC VIBRATION ABSORBERS
Yohsuke Nambu, Osaka Prefecture University, Japan

IAC-12.C2.3.11
DYNAMIC BEHAVIOR ANALYSIS OF INFLATABLE BOOMS IN ZIGZAG AND MODIFIED ZIGZAG FOLDING PATTERNS
Nobuisa Katsumata, Waseda University, Japan

IAC-12.C2.3.13
MECHANICAL ENVIRONMENT TESTS OF CHINA COMMUNICATION SATELLITE
LI Zhengju, China Academy of Space Technology (CAST), China

IAC-12.C2.3.14
ENERGY SENSITIVITY BASED METHOD FOR STATISTICAL ENERGY ANALYSIS PARAMETERS IDENTIFICATION
Hongliang Zhang, School of Astronautics, Harbin Institute of Technology, China

IAC-12.C2.3.15
STUDY ON POGO VIBRATION SUPPRESSION OF GAS-LIQUID FLOW IN CRYOGENIC PUMP FEED LINE
Jie Fang, Beijing University of Aeronautics and Astronautics, China

IAC-12.C2.3.16
IN-ORBIT MICRO-VIBRATION MEASUREMENT OF CAST'S ZY-3 SATELLITE
Gaofeng Guo, China Academy of Space Technology (CAST), China

IAC-12.C2.3.17
ESTIMATION OF INERTIA PARAMETERS FOR ON-ORBIT OBJECT USING A ROBOT ARM
Shuguang Li, Northwestern Polytechnical University, China

IAC-12.C2.3.18
RESEARCH ON THE MODAL TEST TECHNOLOGY FOR THE LARGE LAUNCH VEHICLE WITH FOUR BOOSTERS
Peng hui Wang, Beijing Institute of Structure & Environment Engineering, China

IAC-12.C2.3.19
LANDING LOADS ANALYSIS OF LUNAR LANDER USING MONTE CARLO METHOD
Liang Dongping, China Academy of Space Technology (CAST), China

C2.4. New Materials and Structural Concepts

October 3 2012, 10:15 — TS07 (Regulus, Hall 3)

Chairs: *Marc Lacoste, Snecma Propulsion Solide, France; Iurii Moshnenko, Yuzhnoye State Design Office, Ukraine;*
Rapporteur: *Luigi Scatteia, CIRA Italian Aerospace Research Centre, Italy;*

IAC-12.C2.4.1
INNOVATIVE THERMAL PROTECTION SYSTEM FOR RE-ENTRY APPLICATION
Marta Albano, University of Rome "La Sapienza", Italy

IAC-12.C2.4.2
SHARP COMPOSITE UHTC LEADING EDGES FOR HYPERSONIC APPLICATIONS
Frederic Monteverde, CNR-ISTEC, Italy

IAC-12.C2.4.3
FIBER REINFORCED UHTC AND UHTC COATED METALS PAYLOADS ON THE AUSTRALIAN HYPERSONIC VEHICLE SCRAMSPACE.
Roberto Gardi, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C2.4.4
LIGHT-WEIGHT SIO2-AL2O3 AEROGELS FOR HIGH-TEMPERATURE THERMAL INSULATION
Junning Li, China

IAC-12.C2.4.5
CARBON NANOTUBES COMPOSITES: MATERIAL FOR NEXT GENERATION SPACE VEHICLE
Sohaib Akbar, Pakistan Space and Upper Atmosphere Research Commission, Pakistan

IAC-12.C2.4.6
CARBON HONEYCOMB PLASTIC AS LIGHT-WEIGHT AND DURABLE STRUCTURAL MATERIAL
Volodymyr Slyvynskyi, Ukrainian Research Institute of Engineering Technique, OJSC, Ukraine

IAC-12.C2.4.7
FRICTION STIR WELDING OF METAL MATRIX COMPOSITES FOR USE IN AEROSPACE STRUCTURES
Tracie Prater, Vanderbilt University, United States

IAC-12.C2.4.8
CRACK PROPAGATION MODELLING IN PRESENCE OF VOIDS AND INCLUSIONS USING A PERIDYNAMIC APPROACH
Mirco Zaccariotto, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.C2.4.9
NOVEL ROLLING ROVERS ACTUATED BY MEANS OF ELECTROACTIVE POLYMERS
Stefano Zampierin, Università degli Studi di Padova, Italy

IAC-12.C2.4.10
ENHANCEMENT OF OPTICAL ABSORPTION BY NANO PARTICLES
Yongan Tang, United States

IAC-12.C2.4.12
ALUMINIUM-SCANDIUM ALLOY'S COMPATIBILITY WITH HIGH CONCENTRATIONS HYDROGEN PEROXIDE
Yuwei Zhang, China

IAC-12.C2.4.13
EFFECT OF MAPP AS COUPLING AGENT ON THE MECHANICAL, THERMAL AND INTERFACIAL PROPERTIES OF GLASS FIBRE-PP COMPOSITE
Sohaib Akbar, Pakistan Space and Upper Atmosphere Research Commission, Pakistan

IAC-12.C2.4.14
PROPOSED MATERIALS FOR Z-PINCH PULSE-POWERED FUSION SYSTEMS FOR SPACE PROPULSION
Mitchell Rodriguez, University of Alabama in Huntsville, United States

IAC-12.C2.4.15
MATERIALS SELECTION FOR NEUTRON REFLECTORS IN NUCLEAR FUSION REACTOR SYSTEMS
Mitchell Rodriguez, University of Alabama in Huntsville, United States

IAC-12.C2.4.16
MATERIAL AND SURFACE PROPERTIES OF LARES SATELLITE.
Antonio Paolozzi, University of Rome "La Sapienza", Italy

IAC-12.C2.4.17
THERMAL PROTECTION TECHNIQUE ADVANCE IN RESEARCH OF HYPERSONIC VEHICLE SHARP LEADING EDGE
Ai Bang cheng, China

IAC-12.C2.4.18
DESIGN STRATEGIES FOR SPACE SYSTEMS AND SUBSYSTEMS USING ADVANCED NANO-MATERIALS AND MANUFACTURING TECHNOLOGIES
Athanasios Baltopoulos, University of Patras, Greece

IAC-12.C2.4.19
THE EFFECTS OF STACKING SEQUENCE OF THE SKIN UPON THE DELAMINATION GROWTH PROCESS FOR COMPOSITE ADVANCED GRID STIFFENED STRUCTURES (AGS)
Jin Yu, Beijing Institute of Structure & Environment Engineering, China

IAC-12.C2.4.20
NUMERICAL INVESTIGATION ON CONDUCTION-COOLED SUPERCONDUCTING MAGNETS IN SPACE
Yoh Nagasaki, Research Institute for Sustainable Humanosphere, Kyoto University, Japan

IAC-12.C2.4.21
DEVELOPMENT OF NEW MD/FE COUPLING METHOD FOR MULTISCALE MODELING OF NANOSTRUCTURED SPACE MATERIALS
Banafsheh Hashemi Pour, York University, Canada

IAC-12.C2.4.22
CONCEPT AND MECHANICAL PROPERTIES OF BELLOWS-TYPE INFLATABLE-TUBES
Hiroshi Furuya, Tokyo Institute of Technology, Japan

IAC-12.C2.4.23
DEVELOPMENT TRENDS OF MATERIALS FOR METAL SEALED STRUCTURE OF SPACECRAFT
Jie Fang, China Academy of Space Technology (CAST), China

IAC-12.C2.4.24
WELDS DEFECTS IN LASER BEAM WELDED T JOINT ALUMINUM-LITHIUM ALLOY
Hongbing Liu, Shanghai Aircraft Manufacturing Co.,Ltd., China

C2.5. Smart Materials and Adaptive Structures

October 3 2012, 15:15 — TS07 (Regulus, Hall 3)

Chairs: *Michael J. Eiden, The Netherlands; Junjiro Onoda, Japan Aerospace Exploration Agency (JAXA), Japan;*
Rapporteur: *Paolo Gaudenzi, University of Rome "La Sapienza", Italy;*

IAC-12.C2.5.1
BIO-INSPIRED PROGRAMMABLE MATTER FOR SPACE APPLICATIONS
Thomas Sinn, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.C2.5.2
NOVEL KINEMATIC CONTROL TECHNIQUE FOR ELECTROACTIVE POLYMER ROLLING ROVERS
Silvio Cocuzza, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.C2.5.3
SHAPE CONTROL OF A MEMBRANE STRUCTURE WITH SHAPE MEMORY ALLOYS
Ryan Orszulik, York University, Canada

IAC-12.C2.5.4
APPLICATIONS OF TUNED MASS DAMPERS TO IMPROVE PERFORMANCE OF LARGE SPACE MIRRORS
Brij Agrawal, Naval Postgraduate School, United States

IAC-12.C2.5.5
VIBRATION CONTROL FOR MEMBRANE BY SMART DYNAMIC VIBRATION ABSORBER
Shota Yamamoto, Osaka Prefecture University, Japan

IAC-12.C2.5.6
FUZZY-BASED ADAPTIVE MULTI-MODAL VIBRATION CONTROL WITH IMPERFECT STRUCTURAL DATA
Kanjuro Makihara, Tohoku University, Japan

IAC-12.C2.5.7
WIRELESS STRUCTURAL HEALTH MONITORING OF SPACE STRUCTURES WITH ENERGY HARVESTING CAPABILITIES
Luca Lampani, University of Rome "La Sapienza", Italy

IAC-12.C2.5.8
WIRELESS STRAIN SENSING SYSTEM FOR SPACECRAFT HEALTH MONITORING
Yayu Monica Hew, United States

IAC-12.C2.5.9
DESIGN OF A FIBER-OPTIC INTERROGATOR MODULE FOR THE HYBRID SENSOR BUS SYSTEM FOR TEMPERATURE MONITORING IN TELECOMMUNICATION SATELLITES
Philipp Putzer, Technical University of Munich, Germany

IAC-12.C2.5.10
FIBER-OPTIC STRAIN SENOR-BASED STRUCTURAL HEALTH MONITORING OF AN UNINHABITATED AIR VEHICLE
Jessica Alvarenga, NASA URC SPACE Center, California State University Los Angeles, United States

IAC-12.C2.5.11
A DISTRIBUTED STRAIN SURVEILLANCE SYSTEM FOR CRYOGENIC TANK
Peng Weibin, Beijing Institute of Astronautical Systems Engineering, China

C2.6. Space Environmental Effects and Spacecraft Protection

October 4 2012, 10:15 — TS07 (Regulus, Hall 3)

Chairs: *Minoo Dastoor, National Aeronautics and Space Administration (NASA), United States; Akira Meguro, Tokyo City University, Japan;*
Rapporteur: *Giuliano Marino, CIRA Italian Aerospace Research Centre, Italy;*

IAC-12.C2.6.1
AEROTHERMODYNAMIC DESIGN OF SCIROCCO PLASMA WIND TUNNEL TESTS FOR IXV TPS INTERFACES
Sara Di Benedetto, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C2.6.2
TRIBOLOGICAL PROPERTIES OF PTFE COMPOSITE IN LUNAR EXTREME ENVIRONMENT
Koji Matsumoto, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C2.6.3
THERMAL MATERIAL EXPOSED EXPERIMENT BASED ON RVD IN LEO
Jiajing Huo, Institute of Manned Space System Engineering,China Academy of Space Technology (CAST), China

IAC-12.C2.6.4
ELECTROSTATIC SURFACE IN LUNAR EXPLORATIONS
Nima Gharib, McGill University, Canada

IAC-12.C2.6.5
THERMAL TESTS ON LARES SATELLITE COMPONENTS.
Antonio Paolozzi, University of Rome "La Sapienza", Italy
IAC-12.C2.6.6
RADIATION SHIELDING OF COMPOSITE SPACE ENCLOSURES
Garbiñe Atxaga, TECNALIA, Spain

IAC-12.C2.6.7
ON-GROUND TESTING METHODOLOGIES IMPROVEMENT IN ARC-JET PLASMA FACILITIES USING OPTICAL EMISSION DIAGNOSTICS
Alessio Cipullo, Second University of Naples, Italy

IAC-12.C2.6.8
FLIGHT EVALUATION ON SURVIVABILITY OF FEP IN SUPER-LOW EARTH ORBIT ENVIRONMENT
Kumiko Yokota, Kobe University, Japan

IAC-12.C2.6.9
ANALYSIS AND SYNTHESIS OF IMPACT RESILIENT COMPOSITE STRUCTURE USING COMPUTATIONAL SIMULATION AND COMPOSITE STRUCTURE TAILORING IN ELASTIC PANEL STRUCTURE
Harijono Djojodihardjo, Universitas Al Azhar Indonesia, Indonesia

IAC-12.C2.6.10
THE STUDY OF IRRADIATION EFFECT OF HIGH ENERGY PROTON AND ELECTRON ON TRIPLE_JUNVTION INGAP2/GAAS/GE CELL
Lei Zhang, Lanzhou Institute of Physics, China

IAC-12.C2.6.11
THE SIMULATION OF INTERNAL CHARGING EFFECT IN FR-4 PCB OF SATELLITE BY USING ATICS
Lifei Meng, China Academy of Space Technology (CAST), China

C2.7. Space Vehicles – Mechanical/Thermal/ Fluidic Systems

October 4 2012, 15:15 — TS07 (Regulus, Hall 3)

Chairs: *Oleg Alifanov, Moscow Aviation Institute, Russia; Brij Agrawal, Naval Postgraduate School, United States;*
Rapporteur: *Guoliang Mao, Beijing Institute of Aerodynamics, China;*

IAC-12.C2.7.1
RECENT THERMAL DESIGN DRIVEN DEVELOPMENT ACTIVITIES AT MT AEROSPACE
Farid Infed, MT Aerospace AG, Germany

IAC-12.C2.7.2
CRYOGENICS TASKS IN PERSPECTIVE RUSSIAN SCIENTIFIC SPACE PROJECTS
Anton Burdanov, Central Research Institute of Machine Building (FSUE/TSNIIMASH), Russia

IAC-12.C2.7.3
COATING EFFECTS ON THERMAL PROPERTIES OF CARBON CARBON AND CARBON SILICON CARBIDE COMPOSITES FOR SPACE THERMAL PROTECTION SYSTEMS.
Marta Albano, University of Rome "La Sapienza", Italy

IAC-12.C2.7.4
CHEMICAL NON EQUILIBRIUM SIMULATIONS OF HYPERSONIC FLIGHTS IN CARBON DIOXIDE-NITROGEN ATMOSPHERES USING A COUPLED EULER-SECOND-ORDER BOUNDARY LAYER METHOD
Martin Starkloff, University of the Federal Armed Forces Munich, Germany

IAC-12.C2.7.5
RE-USE OF EXOMARS ROVER ON ICY MOONS OF JUPITER
Abrar-Ul-Haq Khan Baluch, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of

IAC-12.C2.7.6
EXPERT – THE ESA EXPERIMENTAL RE-ENTRY VEHICLE: EXPERIMENTS AND PAYLOADS QUALIFIED AND READY FOR THE FLIGHT
Antonio Del Vecchio, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C2.7.7
LARGE SCIENTIFIC SATELLITE TESTED WITH SUCCESS AT LIT-INPE 6M X 8M SPACE SIMULATION CHAMBER
Jose Sergio Almeida, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil

IAC-12.C2.7.8
UNCERTAINTY QUANTIFICATION FOR HYPERSONIC FLOW SIMULATIONS
Jeroen Cappaert, International Space University (ISU), France

IAC-12.C2.7.9
EFFECT OF ECCENTRICITY ON THE HEAT TRANSFER RATES OF A RE ENTRY VEHICLE WITH CONCAVE WINDWARD SURFACE
Gurunadh Velidi, University of Petroleum and Energy Studies, India

IAC-12.C2.7.10
SOLID ROCKET BOOSTER SEGMENT JOINT - A PARAMETRIC STUDY
Yezhil Arasu, Vikram Sarabhai Space Centre (VSSC), India

IAC-12.C2.7.11
AEROTHERMODYNAMICS OF A HEMISPHERICAL-CYLINDRICAL BLUNT VEHICLE WITH A FLOW THROUGH DUCT
Gurunadh Velidi, University of Petroleum and Energy Studies, India

IAC-12.C2.7.12
ROBUST NEURAL NETWORK CONTROL OF SPACE ROBOT SYSTEM WITH FLEXIBLE JOINTS
Zhiyong Chen, China

IAC-12.C2.7.15
NUMERICAL ANALYSIS OF ENGINE CYLINDER LINER WITH INNER FUNCTIONALLY GRADED THERMAL BARRIER COATING
Lihong Yang, Harbin Engineering University, China

IAC-12.C2.7.16
THE HUNGARIAN COCORAD EXPERIMENT IN THE BEXUS PROGRAM OF THE ESA
Balazs Zabori, Budapest University of Technology and Economics, Hungary

IAC-12.C2.7.17
AEROHEATING AND STRUCTURE COUPLED ANALYSIS IN THERMAL PROTECTION SYSTEM FOR REUSABLE LAUNCH VEHICLE
Shiyong Huang, China Academy of Launch Vehicle Technology, China

IAC-12.C2.7.18
ANALYSIS OF LOAD TRANSMISSION LINE ON THE FUSELAGE OF REUSABLE LAUNCH VEHICLE
Ma Tingting, China Academy of Launch Vehicle Technology, China

IAC-12.C2.7.19
SIMULATION OF MULTI-BODY SEPARATION OF AEROSPACE VEHICLES BASED ON UNSTRUCTURED OVERSET GRIDS TECHNOLOGY
Zhou Liu, China Academy of Aerospace Aerodynamics(CAAA), China

IAC-12.C2.7.20
CORRECTION OF HYPERSONIC VISCOUS INTERACTION CORRELATION PARAMETER
Gong Anlong, China

IAC-12.C2.7.21
AN ALL-SPEED UNSTRUCTUREDFLOW SOLVER FOR SEPARATION PROCESS
YueLong He, China Academy of Aerospace Aerodynamics(CAAA), China

IAC-12.C2.7.22
NUMERICAL SIMULATION OF UAV CARRIER-LANDING INTERACTIVE FLOWFIELD
YueLong He, China Academy of Aerospace Aerodynamics(CAAA), China

IAC-12.C2.7.23
NUMERICAL SIMULATION OF AERODYNAMIC HEATING ON HYPERSONIC SLIP FLOW
Guo-hao DING, National University of Defense Technology, China

IAC-12.C2.7.25
ACOUSTIC-ELASTIC OF FLIGHT VEHICLE
Pei Xi, Northwestern Polytechnical University, China

IAC-12.C2.7.26
INVESTIGATE OF RUDDER DEFLECTED MULTI-BODY SEPARATION
Dun Li, China Academy of Aerospace Aerodynamics(CAAA), China

C2.8. Specialised Technologies, Including Nanotechnology

October 5 2012, 09:00 — TS07 (Regulus, Hall 3)

Chairs: *Mario Marchetti, University of Rome "La Sapienza", Italy; Pierre Rochus, CSL, Université de Liège, Belgium;*
Rapporteur: *Pavel M. Trivailo, Royal Melbourne Institute of Technology (RMIT), Australia;*

IAC-12.C2.8.1
PLASMA SPUTTERED OXIDE FILMS ON HYBRID CAPTIVE DEVICE FOR REUSABLE TPS FOR RE-ENTRY SYSTEMS
Marta Albano, University of Rome "La Sapienza", Italy

IAC-12.C2.8.2
TAILORED INTERFACE FOR HIGH PERFORMANCE OXIDE FIBER REINFORCED CERAMIC MATRIX COMPOSITES
Nijuan SUN, Aerospace research institute of materials and processing technology (ARIMPT), China

IAC-12.C2.8.3
MECHANICAL CHARACTERIZATION OF AMORPHOUS CARBON-NANOTUBE NANOSTRUCTURES BY IN-SITU TEM
Jennifer Carpena-Nunez, Institute of Functional Nanomaterials, University of Puerto Rico, San Juan, PR, USA, Puerto Rico

IAC-12.C2.8.4
HIGH SELECTIVITY AND SENSITIVITY BIOCHEMICAL SENSOR BASED ON QUANTUM CONFINEMENT
Branislav Vlahovic, North Carolina Central University, United States

IAC-12.C2.8.5
PROTOTYPING OF A PHASE CHANGE MATERIAL HEAT STORAGE DEVICE
Jean-Paul Collette, Belgium

IAC-12.C2.8.6
STATE-OF-THE-ART MODELING STRATEGIES AND CAPABILITIES FOR NANO-REINFORCED MATERIALS TARGETING SPACE APPLICATIONS
Athanasios Baltopoulos, University of Patras, Greece

IAC-12.C2.8.7
STUDY OF THE ADDITION OF DIFFERENT CARBON NANOSTRUCTURES IN CONDUCTIVE EPOXY MATRIXES FOR STRUCTURAL HEALTH MONITORING PURPOSES
Alberto Jimenez-Suarez, Universidad Rey Juan Carlos, Spain

IAC-12.C2.8.8
INVESTIGATION OF GAS-SURFACE INTERACTION AND MODELLING OF THE REFERENCE CATALYCITY FOR THERMAL PROTECTION MATERIAL TESTING IN PLASMA WIND TUNNELS
Guerric de Crombrugghe, von Karman Institute for Fluid Dynamics, Belgium

IAC-12.C2.8.9
THERMAL DESIGN FOR THE CYCLIC WORKING COMPONENT IN SPACECRAFT USING THE SOLID THERMAL BUFFER MASS AS A THERMAL CAPACITOR
Taig Young Kim, Korea Polytechnic University, Korea, Republic of

IAC-12.C2.8.10
MOLECULAR DYNAMIC SIMULATION OF HEAT TRANSFER OF GASES IN A SPACECRAFT HEATPIPE
Michael Kio, National Space Research and Development Agency, Abuja, Nigeria, Nigeria

IAC-12.C2.8.11
KEVLAR FILLED ETHYLENE-PROPYLENE DIENE TER-MONOMER BASED INTERNAL THERMAL INSULATION FOR SPACE VEHICLES
Jamal Gul, SUPARCO, Pakistan

IAC-12.C2.8.12
DEVELOPMENT OF CONCEPTION OF THE USE OF ENERGY OF EXTERNAL MAGNETIC-FIELD FOR PROVIDING OF LONG DURATION SPACE MISSIONS
Alexander Degtyarev, Yuzhnoye State Design Office, Ukraine

IAC-12.C2.8.13
TOPOLOGICAL STRUCTURES ANALYSIS FOR HYPERSONIC FLOWS AROUND HTV-TYPE AIRCRAFT
Feng Liu, College of Aerospace and Materials Engineering, National University of Defense Technology, China

C2.9. Advancements in Materials Applications and Rapid Prototyping

October 5 2012, 14:00 — TS07 (Regulus, Hall 3)

Chairs: *Thierry Romeuf, EADS Astrium, France; Franz-Josef Kahlen, University of Cape Town, South Africa;*
Rapporteur: *Yeong-Moo Yi, Korea Aerospace Research Institute, Korea, Republic of;*

IAC-12.C2.9.2
A COMPOSITE INTERSTAGE FOR THE VEGA EVOLUTION
Giovanni Totaro, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C2.9.3
FEATURES OF LAUNCH VEHICLE/PAYLOAD INTERFACE IN LAUNCH SYSTEMS WITH A TAKE-OFF IN A HORIZONTAL POSITION ON THE EXAMPLE OF THE "AIR LAUNCH" SPACE TRANSPORTATION SYSTEM
Dina Pogosyan, Air Launch Aerospace Corporation, Russia

IAC-12.C2.9.4
STRUCTURAL INVESTIGATIONS FOR A5 ME UPPER STAGE PDR DEVELOPMENT AT MT AEROSPACE
Daniel Zell, MT Aerospace AG, Germany

IAC-12.C2.9.5
LARES SATELLITE AND SEPARATION SYSTEM.
Antonio Paolozzi, University of Rome "La Sapienza", Italy

IAC-12.C2.9.6
DEVELOPMENT OF A LIGHTWEIGHT, MONOLITHIC, ASPHERIC MIRROR UTILIZING FDM TECHNOLOGY
Josiah Thomas, University of Alabama in Huntsville, United States

IAC-12.C2.9.7
ROLLING DYNAMICS IN ROVERS ACTUATED BY MEANS OF DIELECTRIC ELASTOMERS
Silvio Cocuzza, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.C2.9.8
EVALUATION OF EFFECTIVE EMISSIVITY OF NEW THERMAL INSULATION USING POLYIMIDE FOAM FOR SPACECRAFT
Ryuichi Takagi, Keio University, Japan

IAC-12.C2.9.9
EMISSIVITY CHARACTERIZATION OF CARBON SILICON CARBIDE COMPOSITES FOR TPS THOROUGH PLASMA WIND TUNNEL TESTS: EXPERIMENTAL VALIDATION
Plinio Coluzzi, University of Rome "La Sapienza", Italy

IAC-12.C2.9.10
TENSILE PROPERTIES OF THE WELDING JOINTS: TESTS ON ALUMINUM ALLOY SPECIMEN OF ROLLED AND FORGE PIECES
Qiang Zhou, Institute of Manned Space System Engineering,China Academy of Space Technology (CAST), China

IAC-12.C2.9.11
PLASMA SPRAYED CERAMIC COATINGS, ON REFRACTORY, METALS FOR SPACE APPLICATIONS.
Roberto Gardi, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C2.9.12
SPACE MISSION OPPORTUNITIES USING SHAPE MEMORY COMPOSITES
Antonio G. Accettura, AVIO S.p.A., Italy

C3. SPACE POWER SYMPOSIUM

Coordinator: *Leopold Summerer, European Space Agency (ESA), The Netherlands;*

C3.1. Space-Based Solar Power Architectures – New Governmental and Commercial Concepts and Ventures

October 1 2012, 15:15 — TS17 (Corsica, Palacongressi)

Chairs: *Leopold Summerer, European Space Agency (ESA), The Netherlands; John C. Mankins, ARTEMIS Innovation Management Solutions, LLC, United States;*
Rapporteur: *Nobuyuki Kaya, Kobe University, Japan;*

IAC-12.C3.1.1
SYMPOSIUM KEYNOTE: PETER GLASER LECTURE
Leopold Summerer, European Space Agency (ESA), The Netherlands

IAC-12.C3.1.2
IMPLEMENTATION ARCHITECTURE FOR INDUSTRIAL-SCALE SPACE SOLAR POWER
Brent Sherwood, Caltech/JPL, United States

IAC-12.C3.1.3
SPS-ALPHA: THE FIRST PRACTICAL SOLAR POWER SATELLITE VIA ARBITRARILY LARGE PHASED ARRAY (A 2011-2012 NASA NIAC PROJECT)
John C. Mankins, ARTEMIS Innovation Management Solutions, LLC, United States

IAC-12.C3.1.4
TECHNOLOGY DEVELOPMENT STATUS FOR SPACE SOLAR POWER SYSTEMS
Susumu Sasaki, Japan Aerospace Exploration Agency (JAXA)/ISAS, Japan

IAC-12.C3.1.5
FRACTIONATED SOLAR POWER SATELLITE FOR REGIONAL COVERAGE
Massimiliano Vasile, University of Strathclyde, United Kingdom

IAC-12.C3.1.6
CONCEPTUAL DESIGN ON THE SANDWICH SOLAR POWER SATELLITE
Nobuyuki Kaya, Kobe University, Japan

IAC-12.C3.1.7
SPACE STATION - THE STRATEGIC OPPORTUNITY FOR THE DEVELOPMENT OF SPS IN CHINA
Xinbin Hou, CAST, China

IAC-12.C3.1.8
NOVEL SPS SYSTEM CONCEPT - WINNING SPS COMPETITION PAPER
Leopold Summerer, European Space Agency (ESA), The Netherlands

IAC-12.C3.1.8
NOVEL SPS SYSTEM CONCEPT - WINNING SPS COMPETITION PAPER
Ryoko Nakamura, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C3.1.9
SYSTEMS ANALYSIS OF THE SANDWICH SOLAR POWER SATELLITE
Ian McNally, University of Glasgow, Space Advanced Research Team, United Kingdom

IAC-12.C3.1.10
PUBLIC/PRIVATE FINANCING MODELS OF A MULTI-MEGAWATT SPACE SOLAR POWER PILOT PLANT BASED UPON THE SPS-ALPHA CONCEPT
A.C. Charania, Particle 9, Inc., United States

C3.2. Wireless Power Transmission Technologies, Experiments and Demonstrations

October 2 2012, 10:15 — TS17 (Corsica, Palacongressi)

Chairs: *Nobuyuki Kaya, Kobe University, Japan; Andrea Massa, Trento University, Italy;*
Rapporteur: *Frank Steinsiek, Astrium Space Transportation, Germany; Massimiliano Vasile, University of Strathclyde, United Kingdom;*

IAC-12.C3.2.1
SANDWICH MODULE PROTOTYPE PROGRESS FOR SPACE SOLAR POWER
Paul Jaffe, Naval Research Laboratory, United States

IAC-12.C3.2.2
SPACE DEMONSTRATION EXPERIMENT ON INTERACTION BETWEEN HIGH POWER MICROWAVE AND IONOSPHERIC PLASMA USING SMALL SCIENTIFIC SATELLITE FOR SOLAR POWER SATELLITE
Koji Tanaka, ISAS/JAXA, Japan

IAC-12.C3.2.3
WIRELESS POWER AND DATA TRANSFER THROUGH METALLIC BIO-CONTAINMENT METAL VESSELS FOR THE MARS SAMPLE RETURN MISSION
Piergiovanni Magnani, Selex Galileo, Italy

IAC-12.C3.2.4
PRELIMINARY EXPERIMENTAL RESULTS OF BEAM STEERING CONTROL SUBSYSTEM FOR SOLAR POWER SATELLITE
Takehiro Miyakawa, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C3.2.5
DISCHARGE OBSERVATION ON ANTENNA SURFACE RADIATING HIGH POWER MICROWAVE IN PLASMA ENVIRONMENT
Hyounggwan Woo, Kyushu Institute of Technology, Japan

IAC-12.C3.2.7
EXPLORATION OF INTERNATIONAL SPACE STATIONS TRANSPORT VEHICLES SOLAR ARRAYS USAGE AS RECEIVERS OF INFRARED LASER RADIATION FOR WIRELESS ENERGY TRANSFER
Olga Zayats, RSC Energia, Russia

IAC-12.C3.2.8
WIRELESS POWER TRANSMISSION: PROOF OF CONCEPT
Frank Little, Texas A&M University, United States

C3.3. Advanced Space Power Technologies and Concepts

October 2 2012, 15:15 — TS17 (Corsica, Palacongressi)

Chairs: *Susumu Sasaki, Japan Aerospace Exploration Agency (JAXA)/ISAS, Japan; Carla Signorini, European Space Agency (ESA), The Netherlands;*
Rapporteur: *George Schmidt, National Aeronautics and Space Administration (NASA), United States; Leopold Summerer, European Space Agency (ESA), The Netherlands;*

IAC-12.C3.3.1
SATELLITE CONSTELLATION DESIGN FOR SOLAR POWER SYSTEM
Neelima Addanki, United States

IAC-12.C3.3.2
EXPERIMENTAL DEMONSTRATION OF HIGH FREQUENCY SWITCHING CONVERTER FOR ENVELOPE TRACKING POWER AMPLIFIER APPLICATIONS
Fabien LEROY, University of Mons, Belgium

IAC-12.C3.3.3
A NOVEL LOAD PRIORITY MANAGEMENT POLICY IN A SPACECRAFT POWER SYSTEM USING JUDGMENT MATRIX
Rui Ding, Institute of Manned Space System Engineering,China Academy of Space Technology (CAST), China

IAC-12.C3.3.4
THERMAL MANAGEMENT OF SPS MICROWAVE SANDWICH USING DIRECTIONAL EMISSIVE/REFLECTIVE COATINGS
Lionel Jacques, European Space Agency, ESA, The Netherlands

IAC-12.C3.3.5
FUEL CELL DESIGN AND BREADBOARDING ACTIVITIES FOR LUNAR SURFACE APPLICATIONS
Filippo Mailland, CGS S.p.A.Compagnia Generale per lo Spazio, Italy

IAC-12.C3.3.6
OVERVIEW OF STUDIES ON LARGE STRUCTURE FOR SPACE SOLAR POWER SYSTEMS (SSPS)
Tatsuhito Fujita, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C3.3.7
NITROGEN-BASED POWER GENERATION DURING THE LUNAR NIGHT
André Weiß, University of Bremen, Germany

IAC-12.C3.3.8
CRYOSAT-2 LI-ION BATTERY DEGRADATION PREDICTION BY ESTIMATING KEY PARAMETERS USING COMMON IDENTIFICATION TECHNIQUES
Luca Ventimiglia, SCISYS Deutschland GmbH, Germany

IAC-12.C3.3.9
ENHANCEMENT OF ENERGY-HARVESTING FROM RANDOM VIBRATION BY SWITCHED SHUNT CIRCUIT
Shigeru Shimose, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C3.3.10
LOW ENERGY NUCLEAR REACTIONS - A BONANZA FOR SPACE EXPLORATION?
Roger X. Lenard, LPS, United States

IAC-12.C3.3.11
ANALYSIS OF SPACECRAFT ELECTRICAL POWER SUBSYSTEM ARCHITECTURES TO ENHANCE SURVIVABILITY AND RELIABILITY
Bryan Kaiser, University of New Mexico, United States

IAC-12.C3.3.12
AMMONIA OXIDATION ON SQUARE-WAVE TREATED PLATINUM DEPOSITED ON BORON-DOPED DIAMOND ELECTRODES
Yaritza Hernández Lebrón, University of Puerto Rico, Puerto Rico

IAC-12.C3.3.13
THERMOMAGNETIC ENGINE (TME)
David Gabrielyan, Moscow Aviation Institute (State Technical University), Russia

IAC-12.C3.3.14
INVESTIGATION ON HIGH EFFICIENCY SOLAR PUMPED ND:YAG LASERS
Zhao Changming, Beijing Institute of Technology, China

IAC-12.C3.3.15
COPPER SURFACE MODIFICATIONS WITH 4-AMINOTHIOPHENOL AS A FIRST STEP IN THE ATTACHMENT OF SINGLE WALL CARBON NANOTUBES
Dionne M. Hernandez-Lugo, NASA Harriet Jenkins Pre-Doctoral Program, University of Puerto Rico, San Juan, PR, USA, Puerto Rico

C3.4. Small and Very Small Advanced Space Power Systems

October 5 2012, 14:00 — TS17 (Corsica, Palacongressi)

Chairs: *Massimiliano Vasile, University of Strathclyde, United Kingdom; Shoichiro Mihara, Japan Space Systems (J-spacesystems), Japan;*
Rapporteur: *Alex Ignatiev, University of Houston, United States; Susumu Sasaki, Japan Aerospace Exploration Agency (JAXA)/ ISAS, Japan;*

IAC-12.C3.4.1
DESING AND REALIZATION OF AN INNOVATIVE DEPLOYABLE SOLAR PANEL SYSTEM FOR CUBESATS
Fabio Santoni, University of Rome "La Sapienza", Italy

IAC-12.C3.4.2
MAXIMIZING OVERALL ELECTRICAL POWER SYSTEM EFFICIENCY IN PICO/NANO-SATELLITES WITH INNOVATIVE PLUG-AND-PLAY BATTERY CHARGING SYSTEM
Matthew Rodencal, University of Alabama in Huntsville, United States

IAC-12.C3.4.3
INNOVATIVE POWER MANAGEMENT TILE FOR NANO SATELLITES
Anwar Ali, Politecnico di Torino, Italy

IAC-12.C3.4.5
ELECTRICAL POWER SYSTEM FOR ESTCUBE-1: A FAULT-TOLERANT COTS SOLUTION
Mihkel Pajusalu, University of Tartu, Estonia

IAC-12.C3.4.6
MULTIFUNCTIONAL POWER CONTROL AND DISTRIBUTION UNIT FOR COMMAND CHAIN RECONFIGURATION
Alexander Natsuya Uryu, University of Stuttgart, Germany

IAC-12.C3.4.7
SIMPLIFIED ARCHITECTURE OF EPS FOR NANO SATELLITE
Dayanand B M, PES Institute of Technology, India

IAC-12.C3.4.8
TEST CAMPAIGN AND PRELIMINARY RESULTS OF THE ALMASAT-EO MICROSATELLITE POWER SYSTEM
Alessandro Tambini, ALMASpace S.r.l., Italy

IAC-12.C3.4.9
SOLAR EMULATOR AND SIMULATOR DESIGN FOR CUBESATS
Ertan Umit, Istanbul Technical University, Turkey

IAC-12.C3.4.10
NANOSATC-BR1 ELECTRICAL POWER SUBSYSTEM – DEVELOPMENT OF A POWER BUDGET
Dimas Irion Alves, Southern Regional Space Research Center - CRS/ CCR/INPE - MCT in collaboration with the Space Science Laboratory of Santa Maria - LACESM/CT - UFSM, Brazil

IAC-12.C3.4.11
THE SFL MODULAR POWER SYSTEM (MPS): A SCALABLE MULTI-PURPOSE POWER SYSTEM FOR 1W TO 1KW-CLASS MISSIONS
Nathan Orr, Space Flight Laboratory, University of Toronto, Canada

IAC-12.C3.4.12
COMPONENTS SELECTION FOR A SIMPLE BOOST CONVERTER ON THE BASIS OF POWER LOSS ANALYSIS
Anwar Ali, Politecnico di Torino, Italy

C4. SPACE PROPULSION SYMPOSIUM

Coordinator: *Giorgio Saccoccia, European Space Agency (ESA), The Netherlands; Richard Blott, Space Enterprise Partnerships Limited, United Kingdom; David Micheletti, Universal Technical Resource Services, United States;*

C4.1. Propulsion System (1)

October 1 2012, 15:15 — TS14 (Capri, Palacongressi)

Chairs: *Max Calabro, The Inner Arch, France; Christophe Bonhomme, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Walter Zinner, Astrium GmbH, Germany;*

IAC-12.C4.1.1
SYMPOSIUM KEYNOTE: THE HYPROB PROGRAM: MASTERING KEY TECHNOLOGIES, DESIGN AND TESTING CAPABILITIES FOR SPACE TRANSPORTATION ROCKET PROPULSION EVOLUTION
Pier Paolo de Matteis, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C4.1.2
DEVELOPMENT OF NEW TECHNOLOGIES APPLIED TO LOX-CH4 PROPULSION
Preve Andrea, AVIO S.p.A., Italy

IAC-12.C4.1.3
DEMONSTRATION OF A 600KN CLASS LOX/METHANE ROCKET ENGINE
Jiguo Sun, Beijing Aerospace Propulsion Institute, China

IAC-12.C4.1.4
INJECTOR CONCEPTIONS FOR USAGE OF LOX/METHANE PROPELLANT COMPOSITION IN LIQUID-LIQUID, EXPANDER AND STAGED COMBUSTION CYCLES OF A LIQUID ROCKET ENGINE
Vladimir Bazarov, Moscow Aviation Institute (State Technical University), Russia

IAC-12.C4.1.5
OVERVIEW OF LNG PROPULSION SYSTEM DEVELOPMENT
Takeshi Tsujimoto, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C4.1.6
MAIN DIRECTIONS OF THE PNEUDRAULIC SYSTEMS PROGRESS OF CONTEMPORARY LAUNCH VEHICLES
Anatoliy Logvinenko, Yuzhnoye State Design Office, Ukraine

IAC-12.C4.1.7
THE DEVELOPMENT AND QUALIFICATION TESTING OF THE SECOND GENERATION HIGH PERFORMANCE 490N LIQUID APOGEE ENGINE
Chnagguo Liu, China

IAC-12.C4.1.8
REUSABLE SOUNDING ROCKET ENGINE DESIGN AND MANUFACTURING STATUS OF DEVELOPMENT ENGINE AND COMPONENTS
Hiromichi Hiraki, Mitsubishi Heavy Industries, Ltd., Japan

IAC-12.C4.1.9
PROGRESS OF THE DEVELOPMENT OF AN ALL-ELECTRIC CONTROL SYSTEM OF A ROCKET ENGINE
Patrick Danous, Snecma, France

IAC-12.C4.1.10
JSC "NPO ENERGOMASH NAMED AFTER ACADEMICIAN V.GLUSHKO" - LEADING RUSSIAN ENTERPRISE ON THE DEVELOPMENT AND PRODUCTION OF LIQUID PROPELLANT ROCKET ENGINES. EXPERIENCE AND PROSPECT.
Petr Levochkin, NPO Energomash, Russia

IAC-12.C4.1.11
PRELIMINARY DESIGN STUDY OF STAGED COMBUSTION CYCLE ROCKET ENGINE FOR SPACELINER HIGH-SPEED PASSENGER TRANSPORTATION CONCEPT
Ryoma Yamashiro, Japan Aerospace Exploration Agency (JAXA), Germany

IAC-12.C4.1.12
STUDY ON COMBUSTION CHARACTERISTICS ACCORDING TO RECESS LENGTH FOR A ROCKET ENGINE USING GAS METHANE/LOX AS PROPELLANTS
Junsu Jeon, Chungnam National University, Korea, Republic of

IAC-12.C4.1.13
DESIGN OPTIMIZATION OF LIQUID ROCKET ENGINE USING A GENETIC ALGORITHM
Sangbok Lee, Inha Univ., Korea, Republic of

IAC-12.C4.1.15
DEVELOPMENT AND TEST OF THE LOX/LNG REGENERATIVE COOLED ROCKET ENGINE
Kenichi Kimoto, IHI Corporation, Japan

C4.2. Propulsion System (2)

October 2 2012, 10:15 — TS14 (Capri, Palacongressi)

Chairs: *Stéphane Henry, SME (Safran group), France; I-Shih Chang, The Aerospace Corporation, United States;*
Rapporteur: *Toru Shimada, Japan Aerospace Exploration Agency (JAXA), Japan;*

IAC-12.C4.2.1
VEGA SOLID ROCKET MOTORS QUALIFICATION STATUS AFTER LAUNCHER MAIDEN FLIGHT
Preve Andrea, AVIO S.p.A., Italy

IAC-12.C4.2.2
SOLID ROCKET MOTORS FOR FUTURE EUROPEAN LAUNCHER
Didier Boury, Snecma Propulsion Solide, France

IAC-12.C4.2.3
SEGMENTED SRM PRESSURE OSCILLATION DEMONSTRATOR
GIORGIO MASTRANGELO, Europropulsion, France

IAC-12.C4.2.4
STRATEGIES OF THE GRAIN CONFIGURATION DESIGN FOR LARGE SOLID BOOSTER MOTORS
Jayaprakash Janardhanan Nair, Indian Space Research Organization (ISRO), India

IAC-12.C4.2.5
TWIN SCREW PROCESS DEMONSTRATION TECHNOLOGY ACTIVITIES FOR SOLID PROPULSION IN NEW GENERATION LAUNCHER APPLICATIONS
Sabine Saint Martin, SME - Safran, France

IAC-12.C4.2.6
EXPERIMENTAL STUDY OF COLLISION OF AL/AL2O3 CONDENSED PARTICLES AT VARIOUS VELOCITIES BY AN INNOVATIVE METHOD
Shengyong Xia, College of Astronautics,Northwestern Polytechnical University, China

IAC-12.C4.2.7
ORPHEE PROJECT SYNTHESIS FOR HYBRID PROPULSION
Philippe GAUTIER, SME (Safran group), France

IAC-12.C4.2.8
PROGRAM AHRES AND ITS CONTRIBUTION TO ASSESS FEATURES AND CURRENT LIMITATIONS OF HYBRID ROCKET PROPULSION
Ognjan Bozic, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.C4.2.9
AN ITALIAN NETWORK TO IMPROVE HYBRID ROCKETS PERFORMANCE: THE STRATEGY, THE PROGRAM, THE RESULTS
Luciano Galfetti, Politecnico di Milano, Italy

IAC-12.C4.2.10
"PARIFFIN-BASED HYBRID ROCKET TESTING AT THE BUTTE AEROTEC FACILITY"
David Micheletti, Universal Technical Resource Services, United States

IAC-12.C4.2.11
VISUALIZATION OF THE LIQUID LAYER COMBUSTION OF PARAFFIN FUEL AT ELEVATED PRESSURES
Ashley Chandler, Stanford University, United States

IAC-12.C4.2.12
NUMERICAL INVESTIGATION OF LIQUIFIED FUEL CHARACTERISTICS IN HYBRID ROCKET ENGINE
Masaki Adachi, The University of TOKYO, Graduate school, Japan

IAC-12.C4.2.13
NUMERICAL SIMULATION BASED OPTIMIZATION OF SEGMENTED GRAIN FOR HYBRID ROCKET MOTOR
Dalin Rao, Beijing University of Aeronautics and Astronautics, China

IAC-12.C4.2.14
NITROUS OXIDE SAFETY FOR HYBRID ROCKETS
Benjamin Waxman, Stanford University, United States

IAC-12.C4.2.15
NUMERICAL INVESTIGATION OF EFFECT OF GRAIN CONFIGURATION ON START-UP TRANSIENT IN SOLID ROCKET MOTORS
Jayaprakash Janardhanan Nair, Indian Space Research Organization (ISRO), India

IAC-12.C4.2.16
SOLID ROCKET MOTOR BALLISTIC SIMULATOR WITH NON-HOMOGENEOUS BURNING RATE DISTRIBUTION
Roberto Bertacin, University of Bologna, Italy

IAC-12.C4.2.17
INVESTIGATION OF FUEL REGRESSION RATE IN A LAB-SCALE N2O/HTPB HYBRID ROCKET MOTOR
Junfeng Wu, Beijing University of Aeronautics and Astronautics, China

IAC-12.C4.2.18
COMBUSTION EFFICIENCY BEHAVIOR OF HYBRID ROCKET WITH H2O2 CATALYTIC DECOMPOSITION
Eun Sang Jung, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of

IAC-12.C4.2.19
THREE-DIMENSIONAL NUMERICAL SIMULATION OF THE FLOW FIELD IN HYBRID ROCKET MOTOR WITH WAGON-WHEEL FUEL GRAIN
Xintian Li, Beijing University of Aeronautics and Astronautics, China

IAC-12.C4.2.20
PERFORMANCE CHARACTERIZATION OF THE HYBRID ROCKET MOTOR WITH SECONDARY INJECTION
Junhai Li, Beijing University of Aeronautics and Astronautics, China

IAC-12.C4.2.21
REGRESSION RATE MEASUREMENTS FOR HYBRID ROCKET ENGINES BASED ON GOX AND HTPB
Dennis Porrmann, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.C4.2.22
NUMERICAL SIMULATION OF THE TRANSITION PROCESS IN A HYBRID ROCKET MOTOR
Jia Yu, Beihang University, China

IAC-12.C4.2.23
ROLL TORQUE PREDICTION IN SRM: PRACTICAL APPLICATIONS
Fulvio Stella, Universita' di Roma 'La Sapienza', Italy

IAC-12.C4.2.24
A COMPUTATIONAL MODEL FOR STABILITY AND SENSITIVITY ANALYSIS OF A CLASSIC TYPE HYBRID ROCKET MOTOR
Marius STOIA-DJESKA, Politechnic University of Bucharest, Romania

IAC-12.C4.2.25
DEVELOPMENT OF AN EXPERIMENTAL LAB-SCALE SET UP FOR TRANSIENT COMBUSTION INVESTIGATION IN HYBRID ROCKETS
Luciano Galfetti, Politecnico di Milano, Italy

IAC-12.C4.2.26
PERFORMANCE ADVANCEMENT OF HYBRID ROCKET ENGINE THROUGH HIGHER REGRESSION RATE AND COMBUSTION EFFICIENCY WITH MULTI-SECTION SWIRL INJECTION METHOD
Yoshihide Hirata, Kyushu University, Japan

IAC-12.C4.2.27
PARAFFIN-BASED FUELS FILLED WITH LITHIUM-BASED ADDITIVES CHARACTERIZATION
Luciano Galfetti, Politecnico di Milano, Italy

IAC-12.C4.2.28
DEVELOPMENT OF A SOLID ROCKET MOTOR FOR THE STRATOS II ROCKET
Hein Olthof, Delft University of Technology (TU Delft), The Netherlands

C4.3. Propulsion Technology

October 3 2012, 10:15 — TS14 (Capri, Palacongressi)

Chairs: *John Harlow, United Kingdom; James Free, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *Didier Boury, Snecma Propulsion Solide, France;*

IAC-12.C4.3.1
SECONDARY INJECTION THRUST VECTORING OF AN AXISYMMETRIC CD NOZZLE FOR SMALL SPACE LAUNCHERS & VEHICLES
Vladeta Zmijanovic, ICARE-CNRS, France

IAC-12.C4.3.2
DYNAMICS AND CONTROL OF THE HELIOS SOLAR SAIL DEMONSTRATOR
Daniel Guerrant, University of Colorado, United States

IAC-12.C4.3.3
RESEARCH ON EPDM INSULATION ABLATION BY PARTICLE FLOW BASED ON STRENGTH FAILURE MODEL FOR POROUS CHARRING LAYER
Yue Chen, Shanghai Institute of Space Propulsion, China

IAC-12.C4.3.4
VALIDATION OF LIQUID OXYGEN-METHANE CRITICAL DESIGN ASPECTS THROUGH SUB-SCALE BREADBOARD TESTING IN THE FRAMEWORK OF THE HYPROB PROGRAM
Marco Di Clemente, CIRA Italian Aerospace Research Centre, Italy

IAC-12.C4.3.5
DEVELOPMENT OF HYDROGEN PEROXIDE ROCKETS AT ALTA S.P.A.: THE PAST, THE PRESENT AND THE FUTURE
Angelo Cervone, Delft University of Technology (TU Delft), The Netherlands

WELCOME MESSAGES
ORGANISERS
PRACTICAL INFORMATION
EXHIBITION
SOCIAL EVENTS
TOURS & SOCIAL EVENTS
ASSOCIATED PROGRAMMES & EVENTS
PRE-CONFERENCE PROGRAMME
CONFERENCE PROGRAMME
TECHNICAL PROGRAMME

IAC-12.C4.3.6
EXPERIMENTAL STUDIES OF THE EFFECTS OF BAFFLES GEOMETRY ON HIGH-FREQUENCY COMBUSTION INSTABILITY OF LIQUID ROCKET ENGINE
Longfei Li, Xi'an Aerospace Propulsion Institute, China

IAC-12.C4.3.7
A STUDY ON THE IMPROVEMENT OF IGNITION AND THRUST REPEATABILITY OF A MICRO SOLID PROPELLANT THRUSTER ARRAY
Daeban Seo, KAIST, Korea, Republic of

IAC-12.C4.3.10
THRUST DEPENDENCY OF MICROWAVE ROCKET ON POWER DENSITY DISTRIBUTIONS OF AN INCIDENT MILLIMETER WAVE BEAM
Toshikazu Yamaguchi, The University of TOKYO, Graduate school, Japan

IAC-12.C4.3.11
SLURRY-PROPELLANT ROCKET PROPULSION. NEW DESIGN SOLUTIONS FOR DISPLACING GAS-GENERATOR AND RELIABLE MULTISTART
Yulian Protsan, The Laboratory of Advanced Jet Propulsions, Ukraine

IAC-12.C4.3.12
RESEACH OF THE OXIDIZER-RICH PREBURNER-PIPE SYSTEM DYNAMIC CHARACTERISTICS
Shang Liu, China

IAC-12.C4.3.13
DEVELOPMENT OF FUEL LEAKAGE DETECTION SENSOR IN SPACE PROPULSION SYSTEM
FUNMILAYO OGUN, National Space Research and Development Agency,Nigeria, Nigeria

IAC-12.C4.3.14
HYBRID DIAGNOSTICS FOR SPACECRAFT PROPULSION SYSTEM
Xiaohui Peng, College of Aerospace and Materials Engineering, National University of Defense Technology, China

IAC-12.C4.3.15
OPTIMIZATION OF ASCENT TRAJECTORY AND MASS BUDGET PREDICTION FOR A LOW POWER EXPERIMENTAL ROCKET
Joy Amedu, National Space Research and Development Agency, Abuja, Nigeria, Nigeria

C4.4. Electric Propulsion

October 3 2012, 15:15 — TS14 (Capri, Palacongressi)

Chairs: *Garri A. Popov, RIAME, Russia; Mariano Andrenucci, Alta SpA, Italy;*
Rapporteur: *Norbert Puettmann, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*

IAC-12.C4.4.1
RECENT DEVELOPMENTS IN HIGH POWER ELECTRIC PROPULSION: OUTCOMES OF HIPER PROJECT ACTIVITIES
Tommaso Misuri, Alta SpA, Italy

IAC-12.C4.4.2
ADVANCEMENT OF A 30 KW SOLAR ELECTRIC PROPULSION SYSTEM CAPABILITY FOR NASA HUMAN AND ROBOTIC EXPLORATION MISSIONS
Bryan K. Smith, NASA Glenn Research Center, United States

IAC-12.C4.4.3
APPLICATION OF STATIONARY PLASMA THRUSTERS FOR SPACECRAFT INSERTION INTO THE GEOSTATIONARY ORBIT
Vladimir Obukhov, Moscow Aviation Institute, Russia

IAC-12.C4.4.5
MAGNETIC FIELD TUNING DURING THE TESTING OF STATIONARY PLASMA THRUSTER
Krishna Mohan Shanbhogue, Indian Space Research Organization (ISRO), India

IAC-12.C4.4.6
HIGH-POWER HALL PROPULSION SYSTEM DEVELOPMENT AT NASA GLENN RESEARCH CENTER
George Schmidt, National Aeronautics and Space Administration (NASA), United States

IAC-12.C4.4.7
THE ALTA FT-150 THRUSTER FOR THE LISA PATHFINDER AND LISA/NGO MISSIONS
Luca Paita, Alta SpA, Italy

IAC-12.C4.4.8
DEVELOPMENT, INTEGRATION AND TEST OF POWER ELECTRONIC EQUIPMENTS FOR CONTROLLING THRUSTERS IN THE MICRO-NEWTON RANGE
Aldo Polli, Galileo Avionica S.p.A., Italy

IAC-12.C4.4.9
ELECTRIC PROPULSION VERIFICATION - MANAGING MEASUREMENT UNCERTAINTY
Richard Blott, Space Enterprise Partnerships Limited, United Kingdom

IAC-12.C4.4.10
DESIGN OF AIR INTAKE FOR AIR BREATHING ION ENGINE
Yasuyoshi Hisamoto, The Graduate University of Advanced Studies, Japan

IAC-12.C4.4.11
PERFORMANCE IMPROVEMENT OF A CARBON NANOTUBE FIELD EMISSION CATHODE
Yasushi Ohkawa, JAXA, Japan

IAC-12.C4.4.12
ANALYSIS OF VASIMR AIR-BREATHING THRUSTER
Charles Moser, Cranfield University, United Kingdom

IAC-12.C4.4.13
ELECTROPLATING TECHNIQUES FOR IMPROVING ELECTROCHEMICAL RESISTANCE OF SILICON AND NICKEL MEMS ELECTROSPRAY THRUSTERS
Natalya Brikner, Massachusetts Institute of Technology (MIT), United States

IAC-12.C4.4.14
INSIGHT INTO ENDURANCE ENHANCEMENT OF ECR MICROWAVE DISCHARGE NEUTRALIZER
Wataru Ohmichi, Tokyo University, Graduate school, Japan

IAC-12.C4.4.15
A PLUG AND PLAY PULSED ELECTROTHERMAL THRUSTER FOR CUBESAT APPLICATIONS
Matthias Lau, University of Stuttgart, Germany

IAC-12.C4.4.16
COMPARATIVE STUDY ON NUMERICAL SIMULATION BY KINETIC AND FLUID MODELS FOR MHD ACCELERATOR
Ulderico Spadavecchia, Nagaoka University of Technology, Japan

IAC-12.C4.4.17
EFFECTS OF DISCHARGE CHARACTERISTICS ON PROPELLANT ABLATION IN PULSED PLASMA THRUSTER
Rui Zhang, College of Aerospace and Materials Engineering, National University of Defense Technology, China

IAC-12.C4.4.18
THE EFFECT OF DISCHARGE LOOP INDUCTANCE COMPENSATION ON HALL THRUSTER
Zhang Wen, China Academy of Launch Vehicle Technology, China

IAC-12.C4.4.19
NON CONVENTIONAL ELECTROD CONFIGURATION IN ELECTROGASDINAMICS TESTS.
Enrique Calcagni, Instituto Universitario Aeronautico, Argentina

IAC-12.C4.4.21
ADVANCED PLASMA PROPULSION WITH MAGNETIC NOZZLES
Mario Merino, Universidad Politécnica de Madrid, Spain

IAC-12.C4.4.22
FEEP CHARACTERIZATION IN TERMS OF MASS EFFICIENCY AND SPECIFIC IMPULSE VERSUS EMITTER GEOMETRY
Luca Paita, Alta SpA, Italy

IAC-12.C4.4.23
FEEP THRUSTER CHARACTERIZATION IN FUNCTION OF EMITTER HYDRAULIC RESISTANCE
Luca Paita, Alta SpA, Italy

IAC-12.C4.4.24
PARTICLE IN CELL SIMULATION OF FEEP THRUSTER PLUME
Luca Paita, Alta SpA, Italy

IAC-12.C4.4.25
SURFACE ELECTRICAL RESISTIVITY OF RANDOMLY CAESIUM CONTAMINATED FEEP CERAMIC
Luca Paita, Alta SpA, Italy

IAC-12.C4.4.26
A NEW POWER PROCESSING CONTROL UNIT FOR A 20 MN CLASS ION ENGINE SYSTEM
Hiroshi Nagano, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C4.4.27
A 500 MICRONEWTON CLASS FEEP THRUSTER
Luca Paita, Alta SpA, Italy

IAC-12.C4.4.28
DESIGN AND RESEARCH ON PULSED HIGH THRUST RESISTOJET
Arkadiusz Kobiera, Warsaw University of Technology, Poland

C4.5. Hypersonic and Combined Cycle Propulsion

October 4 2012, 10:15 — TS14 (Capri, Palacongressi)

Chairs: *Shigeru Aso, Kyushu University, Japan; Salvatore Borrelli, CIRA Italian Aerospace Research Centre, Italy;*
Rapporteur: *Patrick Danous, Snecma, France;*

IAC-12.C4.5.1
AERO-SPIKE AND RBCC ENGINE SYSTEMS FOR FUTURE SPACE TRANSPORTATION VEHICLE
Shuichi Ueda, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.C4.5.2
3D LES OF THE HYSHOT COMBUSTOR USING OPENFOAM
Antonella Ingenito, University of Rome "La Sapienza", Italy

IAC-12.C4.5.4
RAMJET THRUSTER USING OZONE DISSOCIATION ENERGY FOR HIGH ALTITUDE OPERATION
Florin Mingireanu, Romanian Space Agency (ROSA), Romania

IAC-12.C4.5.5
EXPERIMENTS OF SUPERSONIC COMBUSTION USING DISTRIBUTED INJECTION IN A MODEL SCRAMJET ENGINE
Sun Mingbo, China

IAC-12.C4.5.6
SUPERSONIC COMBUSTION OF EMERGING FUELS
Kalind Carpenter, California State University, United States

IAC-12.C4.5.7
AN EXPERIMENTAL STUDY ON HIGHLY EFFICIENT DDT ENHANCEMENT DEVICE FOR PDE
Ryuji NAKAWATASE, Kyushu University, Japan

IAC-12.C4.5.8
NUMERICAL ANALYSIS OF WAVE DRAG REDUCTION BY ENERGY DEPOSITION IN HYPERSONIC FLOW
Yu Xiao-Jing, Northwestern Polytechnical University, China

IAC-12.C4.5.9
EFFECT OF PRE-SHOCK WAVE ON THE FUEL DISTRIBUTION IN CAVITY
Xi Wenxiong, College of Aerospace and Materials Engineering, National University of Defense Technology, China

IAC-12.C4.5.10
NUMERICAL AND EXPERIMENT STUDY OF THE DYNAMIC WORK PROCESS OF A NEW TYPE TWO-STAGE SUPERSONIC AIR EJECTOR
Zonghao Wang, China Aerodynamics Research and Development Center, China

IAC-12.C4.5.12
ANALYSIS OF THE FIRST STAGE TRAJECTORY FOR A TSTO SPACE TRANSPORTATION CONCEPT POWERED BY RBCC ENGINE
RUI XUE, College of Astronautics,Northwestern Polytechnical University, China

IAC-12.C4.5.13
AERODYNAMIC CHARACTERISTICS RESEARCH ON THE WAVERIDER-BASED HYPERSONIC VEHICLE WITH THE GRID FIN
Qing-Yang Guo, National University of Defense Technology, China

IAC-12.C4.5.14
THRUST MEASURE AND CAPABILITY ANALYSIS OF H2/AIR MIXTURE CONTINUOUS ROTATING DETONATION WAVE MODEL ENGINE
Wei Lin, College of Aerospace and Materials Engineering, National University of Defense Technology, China

IAC-12.C4.5.15
STUDY ON THERMAL NONEQUILIBRIUM LASER-SUPPORTED ABSORPTION WAVE AND LASER-POWERED AIR-BREATHING PULSE DETONATION THRUSTER
Xiaokang Li, National University of Defense Technology, China

IAC-12.C4.5.16
QUASI-TWO-DIMENSIONAL EVALUATION AND OPTIMIZATION DESIGN FOR HYPERSONIC SCRAMJET PROPULSIVE FLOWPATH
Xin Ren, Science and Technology on Scramjet Laboratory, The 31st Research Institute of CASIC, China

C4.6. New Missions Enabled by New Propulsion Technology and Systems

October 4 2012, 15:15 — TS14 (Capri, Palacongressi)

Chairs: *Giorgio Saccoccia, European Space Agency (ESA), The Netherlands; David Micheletti, United States;*
Rapporteur: *Jerrol Littles, Pratt & Whitney Rocketdyne, United States;*

IAC-12.C4.6.1
DEVELOPMENT AND TESTING OF PROPULSION SYSTEMS FOR REUSABLE SOUNDING ROCKET
Keitaro Ishikawa, Mitsubishi Heavy Industries Ltd. Japan, Japan

IAC-12.C4.6.2
APPLICATION OF AN ADVANCED MICRO-PROPULSION SYSTEM TO THE DELFFI FORMATION-FLYING DEMONSTRATION WITHIN THE QB50 MISSION
Angelo Cervone, Delft University of Technology (TU Delft), The Netherlands

IAC-12.C4.6.3
CREW WASTE WATER ELECTRIC PROPULSION SYSTEM DEVELOPMENT STATUS AND ITS ROADMAP IN 2012
Yuichiro Nogawa, Earth-Track Corporation, Japan

IAC-12.C4.6.4
INVESTIGATION OF APPLICATION OF NANO-SIZED METAL POWDER AS FUEL IN RAMJET
Xiaolong CHEN, Shanghai Insitute of Space Propulsion, China

IAC-12.C4.6.5
EXPANDED SOLAR SYSTEM CAPABILITY VIA SMALL NUCLEAR PROPULSION STAGE WEST PALM BEACH, FLORIDA, UNITED STATES OF AMERICA DR. TIMOTHY S. KOKAN (CO-AUTHOR) DANIEL LEVACK (CO-AUTHOR)
Claude Joyner, Pratt Whitney Rocketdyne, United States

IAC-12.C4.6.6
ADVANCING THE BEAMED ENERGY ABLATION DRIVEN PROPULSION ENGINE CONCEPT
Grant Bergstue, University of Alabama in Huntsville, United States

IAC-12.C4.6.7
APPLICATION OF ANTIMATTER AS FUEL FOR FUTURE SPACE MISSIONS
Sagar Satpathy, SRM University, Chennai, India

IAC-12.C4.6.8
DEVELOPMENT OF HIGHLY DURABLE PULSED PLASMA THRUSTER FOR ACTIVE FLARE SATELLITE CONSTELLATION
Taro Han, The University of TOKYO, Graduate school, Japan

IAC-12.C4.6.9
PLASTIC CUBESAT FOR MICROPROPULSION AND ACTIVE DEBRIS REMOVAL TEST
Jacopo Piattoni, University of Bologna, Italy

IAC-12.C4.6.10
PROSPECTS OF USE OF SPACE-ROCKET FOR ANTI-ASTEROID PROTECTION OF THE EARTH
Mykola M. Slyunyaev, Yuzhnoye State Design Office, Ukraine

IAC-12.C4.6.11
EXPERIMENTAL STUDY ON THE FLOW PROCESS AND FLOW CHARACTERISTICS OF A BUBBLE ATOMIZING INJECTOR USING NITROUS OXIDE
Wu Liyin, College of Aerospace and Materials Engineering, National University of Defense Technology, China

IAC-12.C4.6.12
MATHEMATICAL MODEL FOR JET COMMAND SYSTEM USING CONTINUOUS HYBRID MICRO-THRUSTERS
Teodor-Viorel Chelaru, University POLITEHNICA of Bucharest - Research Center for Aeronautics and Space, Romania

IAC-12.C4.6.13
NUMERICAL STUDY ON ROTATING DETONATION WAVE IN CYLINDER TUBE
Simon Don, China

IAC-12.C4.6.14
IMPACT OF STRUCTURAL PARAMETERS ON THE PERFORMANCE OF MONOPROPELLANT HIGH CHAMBER PRESSURE IMPULSE THRUSTER
Lou Dequan, CASC, China

C4.7-C3.5. Joint Session on Nuclear Propulsion and Power

October 5 2012, 09:00 — TS14 (Capri, Palacongressi)

Chairs: *Davina Di Cara, European Space Agency (ESA), The Netherlands; Leopold Summerer, European Space Agency (ESA), The Netherlands;*
Rapporteur: *George Schmidt, National Aeronautics and Space Administration (NASA), United States; Vladimir Prisniakov, Academy of Sciences, Ukraine;*

IAC-12.C4.7-C3.5.2
ADVANCED STIRLING RADIOISOTOPE GENERATOR (ASRG) - DEVELOPMENT STATUS AND POTENTIAL NEAR-TERM MISSION APPLICATIONS
Thomas Hartline, NASA Glenn Research Center, United States

IAC-12.C4.7-C3.5.3
SPACE FISSION NUCLEAR POWER – A ROADMAP FOR EUROPE
Richard Blott, Space Enterprise Partnerships Limited, United Kingdom

IAC-12.C4.7-C3.5.4
DEVELOPMENT OF TUNGSTEN BASED CERAMIC-METALLIC (CERMET) FUELS CONTAINING URANIUM DIOXIDE (UO2) FOR NUCLEAR CRYOGENIC PROPULSION STAGE (NCPS)
Jaewon Choi, University of Alabama in Huntsville, United States

IAC-12.C4.7-C3.5.5
FISSION-FUSION HYBRID PULSED PROPULSION SYSTEM FOR IMPROVED TRANSPORTATION
Micah Laughmiller, Univeristy of Alabama in Huntsville, United States

IAC-12.C4.7-C3.5.6
TWO CONCEPTS FOR SPACE PROPULSION BASED ON THERMAL NUCLEAR FUSION
Roland Antonius Gabrielli, Institute of Space Systems, Universität Stuttgart, Germany

IAC-12.C4.7-C3.5.7
ANALYSIS OF STACKED LINEAR TRANSFORMER DRIVERS FOR APPLICATION IN NUCLEAR FUSION PROPULSION
Patrick Giddens, UAHuntsville, United States

IAC-12.C4.7-C3.5.8
DEVELOPMENT ACTIVITIES OF AN INERTIAL ELECTROSTATIC CONFINEMENT DEVICE FOR SPACE APPLICATIONS
Constanze Syring, University of Stuttgart, Germany

IAC-12.C4.7-C3.5.9
PROJECT ICARUS: ANALYSIS AND COMPARISON OF INERTIAL CONFINEMENT FUSION LASERS AND PREDICTIONS FOR FUTURE USE IN SPACE PROPULSION
Milos Stanic, Propulsion Research Center, University of Alabama in Huntsville, United States

IAC-12.C4.7-C3.5.10
COMPACT ANEUTRONIC FUSION PROPULSION
Michael Paluszek, United States

IAC-12.C4.7-C3.5.11
DEVELOPMENT OF SPACE NUCLEAR REACTORS FOR LUNAR PURPOSES: OVERVIEW OF TECHNICAL AND NON-TECHNICAL ISSUES
Ary Pizarro-Chong, Canada

IAC-12.C4.7-C3.5.12
DEVELOPMENT OF A DISTRIBUTED COMPUTING PROJECT FOR FUSION PROPULSION APPLICATIONS
Kevin Schillo, University of Alabama in Huntsville, United States

IAC-12.C4.7-C3.5.13
NUCLEAR THERMAL ROCKET WUO2 FUEL FAILURE ANALYSIS AT NASA MARSHALL
Tabitha Smith, Space Policy Institute, George Washington University, United States

C4.8. Advanced and Combined Propulsion Systems

October 5 2012, 14:00 — TS14 (Capri, Palacongressi)

Chairs: *Jacques Gigou, European Space Agency (ESA), France; Richard Blott, Space Enterprise Partnerships Limited, United Kingdom;*
Rapporteur: *William W. Smith, Aerojet-General Corporation, United States;*

IAC-12.C4.8.1
DEEP SPACE EXPLORATION USING AIRBREATHING ANTIMATTER(POSITRONIC) PROPULSION FOR SINGLE-STAGE-TO ORBIT MISSIONS
Anirudh Thimmaiah, India

IAC-12.C4.8.2
COMPETING EVOLUTION OF ENGINES, POWER INSTALLATIONS AND MOBILE STARTING COMPLEXES UNDER SCENARIOS OF ATMOSPHERIC AND SPACE PROSPECTS
Igor Kurkin, Moscow Aviation Institute, Russia

IAC-12.C4.8.3
APPLICATION OF THE CONTINUOUS ROTATING DETONATION TO JET AND ROCKET PROPULSION
Piotr Wolanski, Warsaw University of Technology and Institute of Aviation, Poland

IAC-12.C4.8.4
PROJECT ICARUS: ANALYSIS OF MAGNETIC NOZZLE DESIGN FOR A PULSED-FUSION PROPULSION SYSTEM
Richard Hatcher, Propulsion Research Center, University of Alabama in Huntsville, United States

IAC-12.C4.8.6
DESIGN AND PERFORMANCE STUDY OF A NEW LASER-ELECTROMAGNETIC COUPLING PLASMA THRUSTER
Daixian Zhang, College of Aerospace and Materials Engineering, National University of Defense Technology, China

IAC-12.C4.8.7
DEVELOPMENTS OF MICROWAVE ROCKET AS A FUTURE LOW-COST MASS TRANSPORTATION SYSTEM
Toshikazu Yamaguchi, The University of TOKYO, Graduate school, Japan

IAC-12.C4.8.8
MIXING ENHANCEMENT IN HYBRID ROCKET MOTOR USING VORTEX GENERATORS
Fulvio Stella, Universita' di Roma 'La Sapienza', Italy

IAC-12.C4.8.9
PULSED MICRO-THRUST MEASUREMENT USING TORSIONAL PENDULUM TECHNIQUES
Daixian Zhang, College of Aerospace and Materials Engineering, National University of Defense Technology, China

IAC-12.C4.8.10
STUDY OF LASER PROPULSION: ONE-DIMENSIONAL MODELING OF LASER-SUPPORTED DETONATION
Kohei Shimamura, The University of TOKYO, Graduate school, Japan

IAC-12.C4.8.11
TWO- AND THREE-DIMENSIONAL PARTICLE-IN-CELL SIMULATION OF MAGNETO PLASMA SAIL
Yasumasa Ashida, Research Institute for Sustainable Humanosphere, Kyoto University, Japan

IAC-12.C4.8.12
NUMERICAL INVESTIGATION ON LASER ABLATION CHARACTERISTICS OF PTFE IN ADVANCED PROPULSION SYSTEMS
Daixian Zhang, College of Aerospace and Materials Engineering, National University of Defense Technology, China

C4.9. Propulsion Concepts and Studies

October 2 2012, 15:15 — TS14 (Capri, Palacongressi)

Chairs: *Stéphane Henry, SME (Safran group), France; Zvika Zuckerman, Rafael Advanced Defense Systems Ltd., Israel;*
Rapporteur: *Salvatore Borrelli, CIRA Italian Aerospace Research Centre, Italy;*

IAC-12.C4.9.1
ARIANE 5 MPS ARTA 5 FIRING TEST
Tarquinio GERMANI, Europropulsion, France

IAC-12.C4.9.2
LESSONS LEARNT DURING THE DEVELOPMENT OF VEGA LAUNCHER SOLID ROCKET MOTORS
Enrico Cavallini, Sapienza Università di Roma, Italy

IAC-12.C4.9.3
HYBRID-ROCKET MOTOR PERFORMANCE TRADE OFF WITH PARAFFIN BASED AND METAL-LOADED HTPB FUEL GRAINS
Annamaria Russo, university of naples, "federico II", Italy

IAC-12.C4.9.4
FUTURE LAUNCH VEHICLE NEW TECHNOLOGIES FOR SOLID PROPULSION
Preve Andrea, AVIO S.p.A., Italy

IAC-12.C4.9.5
EFFECT OF REYNOLDS NUMBER AND FLOW CHANNEL GEOMETRY ON FUEL REGRESSION CHARACTERISTICS IN CAMUI TYPE HYBRID ROCKET
Harunori Nagata, Hokkaido University, Japan

IAC-12.C4.9.6
FIELD EMISSION CATHODES FOR ELECTRODYNAMIC TETHER SYSTEMS - EMISSION CURRENT STABILITY IN FLUCTUATING ELECTRIC POTENTIAL CONDITIONS -
Fumihiko Murata, Shizuoka University, Japan

IAC-12.C4.9.7
DEVELOPMENT OF MINIATURE MICROWAVE DISCHARGE ION THRUSTER FOR DRAG-FREE CONTROL
Takehiro Izumi, Shizuoka University, Japan

IAC-12.C4.9.8
ENVIRONMENTAL STATUS AND PERSPECTIVE FOR RAW MATERIALS AND LIQUID PROPELLANTS
Stéphane Henry, SME (Safran group), France

IAC-12.C4.9.9
NEW ROCKET FUEL: ACETAM
Igor Fatuev, NPO Energomash, Russia

IAC-12.C4.9.10
NOFBX™: A NEW NON-TOXIC, "GREEN" PROPULSION TECHNOLOGY WITH HIGH PERFORMANCE AND LOW COST
Brian Rishikof, Odyssey Space Research, United States

D1. SPACE SYSTEMS SYMPOSIUM

Coordinator: *Robert L. Henderson, The Johns Hopkins University Applied Physics Laboratory, United States; Reinhold Bertrand, European Space Agency (ESA), Germany;*

D1.1. Innovative and Visionary Space Systems Concepts

October 1 2012, 15:15 — TS06 (Canopus, Hall 3)

Chairs: *Mauricio Moshe Guelman, Asher Space Research Institute, Technion, I.I.T., Israel; Jill Prince, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *Peter Dieleman, National Aerospace Laboratory (NLR), The Netherlands;*

IAC-12.D1.1.1
PROJECT TIN TIN – INTERSTELLAR NANO MISSION TO ALPHA CENTAURI
Andreas Tziolas, Icarus Interstellar, United States

IAC-12.D1.1.3
IKAROS EXTENDED MISSION AND ADVANCED SOLAR POWER SAIL MISSION
Osamu Mori, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D1.1.4
CONCEPTUAL DESIGN OF A MAGNETIC SHIELD FOR PROTECTING A MANED SPACECRAFT AGAINST SOLAR PARTICLE RADIATION
Thomas Schervan, RWTH Aachen University, Germany

IAC-12.D1.1.5
BALANCE OF MATERIAL FLUXES WITHIN A CLOSED-LOOP HABITATION SYSTEM
Dominik Quantius, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D1.1.6
DESIGN OF A MULTI-RENDEZVOUS MISSION TO JUPITER'S TROJANS
Volker Maiwald, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D1.1.7
DEOS – GERMAN'S ROBOTIC AGENT CONCEPT TO SERVICE, SECURE AND DE-ORBIT MALFUNCTIONED SATELLITES FROM ORBIT
Detlef Reintsema, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D1.1.8
ACTIVE REMOVAL OF LARGE TUMBLING SPACE DEBRIS BY MEANS OF TETHERS
Nahum Melamed, The Aerospace Corporation, United States

IAC-12.D1.1.9
CONFIGURATIONAL ASPECTS OF AN AERO-BRAKING GEOSPACE EXPLORATION VEHICLE
Bastian Olberts, University of Stuttgart, Germany

IAC-12.D1.1.10
COLLISION AVOIDANCE MANEUVER FOR ELECTROMAGNETIC SATELLITE FORMATIONS
Min Hu, Academy of Equipment, China

IAC-12.D1.1.11
DESIGN OF A SOLAR PANELS DEPLOYMENT SYSTEM FOR CUBESATS
Giuseppe Martinotti, Scuola di Ingegneria Aerospaziale, Italy

IAC-12.D1.1.12
INFLATABLE SYSTEM BASED ON POLYURETHANIC FOAM
Marcello Valdatta, University of Bologna, Italy

IAC-12.D1.1.13
SPACECRAFT GROUND STATION VIRTUAL SIMULATOR
Mehran Mirshams, K. N. Toosi University of Technology, Iran

D1.2. Enabling Technologies for Space Systems

October 2 2012, 10:15 — TS06 (Canopus, Hall 3)

Chairs: *Xavier Roser, Thales Alenia Space France, France; Jean-Paul Aguttes, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Eiichi Tomita, Japan Aerospace Exploration Agency (JAXA), Japan;*

IAC-12.D1.2.1
POSSIBILITY OF HARNESS REDUCTION USING COTS PLC TECHNOLOGY
Ryosuke Fujii, Tokyo University of Science, Japan

IAC-12.D1.2.2
DEVELOPMENT OF A CAMERA CONTROLLER SYSTEM THAT ENABLES AUTONOMOUS IMAGE ACQUISITION FROM MULTIPLE VIEWPOINTS
Yuichi Hiromori, Tokyo University of Science, Japan

IAC-12.D1.2.3
NANOSAR – CASE STUDY OF SYNTHETIC APERTURE RADAR FOR NANO-SATELLITES
Steven Engelen, Delft University of Technology (TU Delft), The Netherlands

IAC-12.D1.2.4
CRUCIAL TECHNOLOGIES FOR FORMATION FLYING OF PICO-SATELLITES
Klaus Schilling, University Wuerzburg, Germany

IAC-12.D1.2.5
MISSION OVERVIEW OF THE DYNAMIC MANIPULATOR FLIGHT EXPERIMENT (DYMAFLEX): A NANOSATELLITE TEST BED TO STUDY COUPLED DYNAMICS BETWEEN A ROBOTIC ARM AND AN EQUIVALENTLY-SIZED SMALL HOST VEHICLE IN THE SPACE ENVIRONMENT
Katherine McBryan, University of Maryland, College Park, United States

IAC-12.D1.2.6
ON-LINE ROBUST POSE ESTIMATION FOR RENDEZVOUS AND DOCKING IN SPACE USING PHOTONIC MIXER DEVICES
Leonardo Regoli, University Wuerzburg, Germany

IAC-12.D1.2.7
INNOVATIVE TECHNOLOGIES FOR NON-COOPERATIVE TARGETS CLOSE INSPECTION AND GRASPING
Francesco Branz, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.D1.2.8
DESIGN OF DOCKING MECHANISM FOR SMALL SPACECRFAT
Lorenzo Olivieri, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.D1.2.9
HITOS: A HIGH-TEMPERATURE OPTICAL FIBER-BASED SENSOR SYSTEM FOR SPACE STRUCTURES
Francisco García-de-Quirós, Emxys S.L., Spain

IAC-12.D1.2.10
INNOVATIVE SHAPE DEFORMABLE VEHICLES FOR SPACE EXPLORATION USING DIELECTRIC ELASTOMER ACTUATORS
Stefano Rossi, University of Padova, Italy

IAC-12.D1.2.11
A NOVEL APPROACH TO REGOLITH PARAMETER EXTRACTION WITH A MICRO ROVER SCOUT
Matthew Cross, Faculty of Engineering, Carleton University, Canada

IAC-12.D1.2.12
X-RAY, GAMMA-RAY AND NEUTRON DETECTOR DEVELOPMENT FOR FUTURE SPACE INSTRUMENTATION.
Conny Hansson, The Netherlands

D1.3. System Engineering Tools, Processes and Training (1)

October 2 2012, 15:15 — TS06 (Canopus, Hall 3)

Chairs: *Geilson Loureiro, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil; Marco Guglielmi, European Space Agency (ESA), The Netherlands;*
Rapporteur: *Xavier Roser, Thales Alenia Space France, France;*

IAC-12.D1.3.1
SPACE SYSTEMS SURVIVABILITY: A NEW APPROACH FOR THE DESIGN OF SPACE SYSTEMS
Catherine Jolly, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France

IAC-12.D1.3.2
TOWARD STRATEGIC DEVELOPMENT OF HODOYOSHI MICROSATELLITE USING ASSURANCE CASES
Kohei TANAKA, Keio University, Japan

IAC-12.D1.3.3
A METHODOLOGY FOR RAPID PRELIMINARY SPACE MISSION DESIGN USING SYSML
Carlos Ortega-Miguez, Technische Universität München, Germany

IAC-12.D1.3.4
THE CONCEPTUAL ARCHITECTURE OF A GENERALIZED DSML BASED SIMULATION FRAMEWORK FOR ON-BOARD SYSTEMS
Balint Sodor, Wigner Research Centre for Physics, Hungarian Academy of Sciences, Hungary

IAC-12.D1.3.5
A PRACTICE USING AADL IN THE DESIGN OF ON-BOARD EMBEDDED SYSTEMS
Nan Li, Chinese Academy of Sciences, China

IAC-12.D1.3.6
A POD-BASED REDUCED ORDER MODEL FOR THE SIMULATION OF SCIROCCO PWT NOZZLES
Davide Cinquegrana, CIRA Italian Aerospace Research Centre, Italy

IAC-12.D1.3.7
STATIC SIMULATION SCHEDULING FOR THE VALIDATION OF SPACE SYSTEM REQUIREMENT DECOMPOSITION
Hao Zhang, Deutsches Zentrum für Luft- und Raumfahrt (DLR) German Aerospace Center, Simulation and Software Technology;Center for Space Science and Applied Research, Chinese Academy of Sciences; Graduate School of Chinese Academy of Sciences, Germany

IAC-12.D1.3.8
INNOVATIVE MULTI-DISCIPLINARY VEHICLE, MISSION AND GNC DESIGN
Andreas Wiegand, Astos Solutions GmbH, Germany

IAC-12.D1.3.9
MULTIDISCIPLINARY DESIGN OPTIMIZATION OF OCEANIC SATELLITES USING ANALYTICAL TARGET CASCADING METHOD
Beibei Wu, Beihang University, China

IAC-12.D1.3.10
PRODUCT DEVELOPMENT UTILIZING WORKFLOW OPTIMIZATION TECHNIQUES IN A COLLABORATIVE INTEGRATED PRODUCT TEAM
Brandon Setayesh, University of Alabama in Huntsville, United States

IAC-12.D1.3.11
AOCS FDIR: CONCEPT AND ITS CONCURRENT SATELLITE DESIGN IMPLEMENTATION
Ilario Cantiello, OHB System AG, Germany

IAC-12.D1.3.12
DEPENDABILITY TECHNIQUES APPLIED IN A CASE STUDY OF SPACE SOFTWARE
Carlos Lahoz, Institute of Aeronautics and Space (IAE), Brazil

D1.4. Space Systems Architectures

October 3 2012, 15:15 — TS06 (Canopus, Hall 3)

Chairs: *Peter Dieleman, National Aerospace Laboratory (NLR), The Netherlands; Franck Durand-Carrier, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *Jill Prince, National Aeronautics and Space Administration (NASA), United States;*

IAC-12.D1.4.2
MULTI-AGENT BASED ONBOARD AUTONOMY OF DISTRIBUTED SPACE SYSTEMS USING SMARTPHONE TECHNOLOGY
Jian Guo, Delft University of Technology (TU Delft), The Netherlands

IAC-12.D1.4.3
OPERATION OF A DUAL-MODE DISASTER MONITORING CONSTELLATION SUPPORTED BY AN ON-ORBIT SUPPLY DEPOT
SeungBum Hong, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of

IAC-12.D1.4.4
DESIGN OPTIMISATION FRACTIONATED SATELLITE SYSTEMS
Benjamin S Schwarz, University of Southampton, United Kingdom

IAC-12.D1.4.5
A CAMERA-BASED POSITIONING SYSTEM FOR THE FORMATION FLYING TESTBED
Bin Zhao, College of Astronautics,Northwestern Polytechnical University, China

IAC-12.D1.4.6
A DELPHI-BASED FRAMEWORK FOR SYSTEMS ARCHITECTING OF IN-ORBIT EXPLORATION INFRASTRUCTURE FOR HUMAN EXPLORATION BEYOND LOW EARTH ORBIT
Alessandro Aliakbargolkar, Massachusetts Institute of Technology (MIT), United States

IAC-12.D1.4.7
FLEXIBLE SPACE EXPLORATION ARCHITECTURE BASED ON HIGH POWER AND ELECTRIC PROPULSION
Pierpaolo Pergola, Alta, Italy

IAC-12.D1.4.8
THE OVERVIEW OF ADVANCED SMALL TYPE STANDARD BUS SYSTEM OF NEXTAR AND ASNARO SATELLITE USING NEXTAR BUS
Tomoki Takegai, NEC Corporation Space Systems Div., Japan

IAC-12.D1.4.9
FEASIBILITY OF INNOVATIVE FAULT DETECTION, ISOLATION AND RECOVERY ON-BOARD SPACECRAFT USING COGNITIVE AUTOMATION
Alexandra Wander, Universität der Bundeswehr München, Germany

IAC-12.D1.4.10
STUDY ON THE ORBITAL MANEUVERING CAPABILITY OF THE LOW-THRUST UPPER STAGE
Toshinori Ikenaga, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D1.4.11
SYSTEM OF SYSTEMS ANALYSIS OF LOW-COST SMALL-SATELLITES SOLUTIONS FOR END-USER ORIENTED SPACE-BASED SERVICES
Fabio Nichele, Politecnico di Torino, Italy

D1.5. Lessons Learned in Space Systems

October 4 2012, 10:15 — TS06 (Canopus, Hall 3)

Chairs: *Klaus Schilling, University Wuerzburg, Germany; Eiichi Tomita, Japan Aerospace Exploration Agency (JAXA), Japan;*
Rapporteur: *Marco Guglielmi, European Space Agency (ESA), The Netherlands;*

IAC-12.D1.5.1
MODELING AND SIMULATION OF THE SOLAR PROBE PLUS SPACEWIRE VIRTUAL DATA BUS
Alan Mick, The Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.D1.5.2
THE CANADIAN CONTRIBUTION TO THE JAMES WEBB SPACE TELESCOPE: THE FINE GUIDANCE SENSOR (FGS) AND THE NEAR-INFRARED IMAGER AND SLITLESS SPECTROGRAPH (NIRISS)
Isabelle Tremblay, Canadian Space Agency, Canada

IAC-12.D1.5.3
SYSTEM VERIFICATION AND AIT LESSONS LEARNED FOR THE EXPERT RE-ENTRY DEMONSTRATOR
Hanno Ertel, Serco FM B.V., The Netherlands

IAC-12.D1.5.5
FOLLOW UP ON THE STANDARDIZATION OF THE TECHNICAL READINESS LEVELS (TRL)
Geilson Loureiro, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil

D1.6. System Engineering Tools, Processes and Training (2)

October 5 2012, 14:00 — TS06 (Canopus, Hall 3)

Chairs: *Tibor S. Balint, National Aeronautics and Space Administration (NASA), United States; Ming Li, China Academy of Space Technology (CAST), China;*
Rapporteur: *Geilson Loureiro, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil;*

IAC-12.D1.6.1
APPLICATION OF MODEL BASED SYSTEMS ENGINEERING FOR AN ASTEROID LANDER
Emmanuel Ogunshile, Surrey Space Centre, University of Surrey, United Kingdom

IAC-12.D1.6.2
CUSTOMIZED SCIENCE PAYLOAD SIMULATOR FOR A PARTICULAR MISSION (ESA'S BEPICOLOMBO)
Marcel Anklam, Vectronic Aerospace GmbH, Germany

IAC-12.D1.6.3
USE OF IN-FLIGHT DATA TO VALIDATE MARS SAMPLE RETURN AUTONOMOUS RVD GNC
Valentin Barrena, GMV Aerospace & Defence SAU, Spain

IAC-12.D1.6.4
ESTABLISH THE ENVIRONMENT TO SUPPORT COST-EFFECTIVE AND RAPID DEVELOPMENT OF MICRO-SATELLITES
Yoshihiro Tomioka, Tohoku University, Japan

IAC-12.D1.6.5
THE SYSTEMS CONCURRENT ENGINEERING LABORATORY
Geilson Loureiro, Instituto Nacional de Pesquisas Espaciais (INPE), Brazil

IAC-12.D1.6.6
A STRUCTURE FOR STUDYING THE DESIGN OF COMPLEX SYSTEMS
Cristina Poleacovschi, University of Alabama in Huntsville, United States

IAC-12.D1.6.7
A SYSTEMS ENGINEERING APPROACH FOR ORGANIZATIONAL ARCHITECTURE
Javier Gonzales, ITA-CTA, Brazil

IAC-12.D1.6.8
A HIGH PERFORMANCE ON-BOARD COMPUTER AND SOFTWARE DEVELOPMENT PLATFORM
Shinichi Kimura, Tokyo University of Science, Japan

IAC-12.D1.6.9
OPENSIMKIT – A STATE OF THE ART AND OPEN SOURCE SYSTEM SIMULATION FRAMEWORK APPLIED TO SYSTEMS ENGINEERING
Claas Ziemke, Institute of Space Systems, Universität Stuttgart, Germany

IAC-12.D1.6.10
SATELLITE FDIR PRACTICES USING TIMED FAILURE PROPAGATION GRAPHS
Luigi Troiano, University of Sannio, Italy

IAC-12.D1.6.11
SET, A SCENARIO EVALUATOR TOOL FOR SUPPORTING SPACE-EXPLORATION MISSION-ARCHITECTURE DESIGN
Diego Cardile, Politecnico di Torino, Italy

D2. SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM

Coordinator: *John M. Horack, Teledyne Brown Engineering Inc., United States; Christophe Bonnal, Centre National d'Etudes Spatiales (CNES), France;*
Secretary: *Paulo Moraes Jr., Instituto de Aeronáutica e Espaço (IAE), Brazil;*

D2.1. Launch Vehicles in Service or in Development

October 1 2012, 15:15 — TS16 (Sicilia, Palacongressi)

Chairs: *Tomohiko Goto, Mitsubishi Heavy Industries, Ltd., Japan; Ray F. Johnson, The Aerospace Corporation, United States;*
Rapporteur: *Christian Dujarric, European Space Agency (ESA), France;*

IAC-12.D2.1.1
VEGA QUALIFICATION FLIGHT RESULTS
Stefano Bianchi, European Space Agency (ESA), Italy

IAC-12.D2.1.2
MULTIPLE SATELLITE LAUNCH CAPABILITIES WITH VEGA LAUNCH VEHICLE
Roberto Mancini, ELV S.p.A., Italy

IAC-12.D2.1.3
SOYUZ LAUNCH SYSTEM, A REALITY IN FRENCH GUIANA
Didier Coulon, European Space Agency (ESA), France

IAC-12.D2.1.4
NASA'S SPACE LAUNCH SYSTEM: A FLAGSHIP FOR EXPLORATION BEYOND EARTH'S ORBIT
Todd A. May, MSFC, United States

IAC-12.D2.1.5
NASA'S COMMERCIAL ORBITAL TRANSPORTATION SERVICES: BUILDING A CARGO PATHWAY TO ORBIT
Dennis Stone, World Space Week Association, United States

IAC-12.D2.1.6
A5ME: IMPORTANT PROGRAMMATIC MILESTONE PASSED IN 2011!
Catherine Poincheval, Astrium Space Transportation, France

IAC-12.D2.1.7
ARIANE 5 PROGRAM STATUS
Denis Schmitt, Arianespace, France

IAC-12.D2.1.8
A YEAR TO LAUNCH: JAPAN'S EPSILON LAUNCHER AND ITS EVOLUTION
Yasuhiro Morita, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D2.1.9
CURRENT STATUS AND EVOLVING PLAN OF JAPANESE FLAGSHIP LAUNCH SYSTEM, H-IIA/H-IIB
Koji Shimura, Mitsubishi Heavy Industries Ltd. - Nagoya Aerospace Systems, Japan

IAC-12.D2.1.10
CONCEPT OF THE NEXT FLAGSHIP LAUNCH SYSTEM OF JAPAN, H-X
Shinya Ohkubo, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D2.1.11
OUTLINE OF EPSILON ROCKET UPPER STAGE APPLICTION INVESTIGATION OF LNG PROPULSION SYSTEM
Yutaka Sato, IHI Aerospace Co, Ltd., Japan

D2.2. Launch Services, Missions, Operations and Facilities

October 2 2012, 10:15 — TS16 (Sicilia, Palacongressi)

Chairs: *Oliver Kunz, MT Aerospace AG, Germany; Yves Gérard, Astrium Space Transportation, France;*
Rapporteur: *Ulf Palmnäs, Volvo Aero Corporation, Sweden;*

IAC-12.D2.2.1
LAUNCHER-SPACECRAFT INTEGRATED ORBITING SYSTEM FOR HIGHER MISSION SUCCESS AND PERFORMANCE
Guillaume Collange, EADS Astrium Space Transportation, France

IAC-12.D2.2.2
VEGA LAUNCH OPERATIONS AND GROUND FACILITIES
Davide Nicolini, European Space Agency (ESA), Italy

IAC-12.D2.2.3
KENNEDY SPACE CENTER: CREATING A SPACEPORT REALITY FROM THE DREAMS OF MANY
James Gray, NASA, United States

IAC-12.D2.2.4
SAFETY MANAGEMENT OF NEW LAUNCH SYSTEMS VEGA AND SOYUZ AT THE GUIANA SPACE CENTER
Bernard Chemoul, Centre National d'Etudes Spatiales (CNES), French Guiana

IAC-12.D2.2.5
COMMERCIAL COMPANIES IMPACT ON THE GLOBAL SERVICE MARKET
Christophe Bauer, Space Exploration Technologies, United States

IAC-12.D2.2.6
SOYUZ AT CSG: SUMMARY OF A SUCCESS STORY
Jean-Marc Astorg, Centre National d'Etudes Spatiales (CNES), France

IAC-12.D2.2.7
VEGA LAUNCH SERVICES FOR SMALL SATELLITE PROGRAMS
Caroline ARNOUX, Arianespace, France

IAC-12.D2.2.8
ARIANE 5 ES LAUNCH VEHICLE BETWEEN ATV AND NEW MISSIONS INTO MEDIUM EARTH ORBIT
Markus Jäger, Astrium Space Transportation, Germany

IAC-12.D2.2.9
LIBERTY™ TRANSPORTATION SERVICES FOR COMMERCIAL CREW
Donald Sauvageau, ATK Launch Systems, United States

IAC-12.D2.2.10
EUROCKOT LAUNCH SERVICES FOR ESA EARTH OBSERVATION SWARM SATELLITES
Anna Zorina, Eurockot Launch Services GmbH, Germany

IAC-12.D2.2.11
MULTI-YEAR EXPERIENCE OF THE "POLET AIRLINES" COMPANY IN THE US MARKET OF AIR TRANSPORTATION OF SPACE PRODUCTS
Dina Pogosyan, Air Launch Aerospace Corporation, Russia

IAC-12.D2.2.12
AN ANALYTICAL RESEARCH FOR THE DESIGNING REQUIREMENTS OF GENERAL ASSEMBLY-TEST BUILDING OF SPACECRAFT LAUNCH SITE
Feng Xian, China Academy of Space Technology (CAST), China

IAC-12.D2.2.13
INVESTIGATION OF THRUST OSCILLATIONS IN LARGE SEGMENTED SOLID ROCKET MOTORS DURING GROUND TESTS
Ramanaiah V, ISRO, India

IAC-12.D2.2.14
SCALE MODEL STUDIES ON LAUNCH VEHICLES FOR CHARACTERIZING THE LIFTOFF ACOUSTICS AND SUPPRESSION
JOPAUL IGNATIUS, Indian Space Research Organisation (ISRO), SDSC SHAR, Astronautical Society of India, India

D2.3. Upper Stages, Space Transfer, Entry and Landing Systems

October 2 2012, 15:15 — TS16 (Sicilia, Palacongressi)

Chairs: *Luigi Bussolino, Bussolino and Associates, Italy; Shayne Swint, National Aeronautics and Space Administration (NASA)/ Marshall Space Flight Center, United States;*
Rapporteur: *Gennaro Russo, Associazione Italiana di Aeronautica e Astronautica (AIDAA), Italy;*

IAC-12.D2.3.1
RE-ENTRY AND LAUNCH PROPOSALS FOR AN ADVANCED ISS CREW TRANSPORTATION SYSTEM
Valerio Carandente, University of Naples "Federico II", Italy

IAC-12.D2.3.2
CONCEPT DESIGN OF CRYOGENIC PROPELLANT STORAGE AND TRANSFER FOR SPACE EXPLORATION
James Free, National Aeronautics and Space Administration (NASA), United States

IAC-12.D2.3.3
REENTRY DEMONSTRATION OF DEPLOYABLE AND FLEXIBLE AEROSHELL FOR FUTURE ATMOSPHERIC-ENTRY VEHICLE USING SOUNDING ROCKETS
Kazuhiko Yamada, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D2.3.4
AERODYNAMIC PERFORMANCE ANALYSIS OF AN UNMANNED RE-ENTRY VEHICLE FROM HYPERSONIC DOWN TO SUBSONIC REGIME
Giuseppe Pezzella, CIRA Italian Aerospace Research Centre, Italy

IAC-12.D2.3.5
MISSION ANALYSIS AND GNC OF THE RE-ENTRY OF THE ARV CAPSULE
Rodrigo Haya Ramos, Deimos Space S.L., Spain

IAC-12.D2.3.6
DYNAMIC SIMULATIONS OF MATRIX ATMOSPHERIC ENTRY CAPSULE TO MARS
Balbir Singh, Manipal Institute of Technology, India

IAC-12.D2.3.7
AERODYNAMIC PERFORMANCES OF USV3 CIRA RE-ENTRY VEHICLE
Francesco Petrosino, CIRA Italian Aerospace Research Centre, Italy

IAC-12.D2.3.8
NAV SKIP: DESIGN AND TESTING OF A STEERABLE ULTRALOW BALLISTIC COEFFICIENT ENTRY VEHICLE (PARASHIELD) CONCEPT
Constance Ciarleglio, University of Maryland, United States

IAC-12.D2.3.9
REENTRY GUIDANCE AND TURNOVER DYNAMICS FOR SMALL-SIZED VEHICLE OF REUSABLE SOUNDING ROCKET
Takayuki Yamamoto, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D2.3.10
LESSONS LEARNT OF TO DATE FLOWN ATV MISSIONS
Felipe Dengra, Astrium GmbH, Germany

IAC-12.D2.3.11
NASA AND ESA PARTNERSHIP ON THE MULTI-PURPOSE CREW VEHICLE SERVICE MODULE
James Free, National Aeronautics and Space Administration (NASA), United States

IAC-12.D2.3.12
LOW-THRUST TRANSFERS FOR THE VEGA ELECTRIC UPPER STAGE
Pierpaolo Pergola, Alta, Italy

D2.4. Future Space Transportation Systems

October 3 2012, 10:15 — TS16 (Sicilia, Palacongressi)

Chairs: *Sundaram Ramakrishnan, Indian Space Researh Organisation, India; David E. Glass, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *José Gavira Izquierdo, European Space Agency (ESA), The Netherlands;*

IAC-12.D2.4.1
CONCEPT STUDY FOR A SPACE VEHICLE WITH RE-ENTRY CAPABILITY
Samantha Ianelli, Italian Space Agency (ASI), Italy

IAC-12.D2.4.2
FUTURE SPACE TRANSPORTATION VEHICLE STUDY AT JAXA
Makoto Yoshida, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D2.4.3
FUTURE LAUNCHERS PREPARATORY PROGRAMME (FLPP) – STATUS OF THE ESA NEXT GENERATION LAUNCHER SYSTEM CONCEPTS
Jens Kauffmann, European Space Agency (ESA), France

IAC-12.D2.4.4
ARIANE 6: FUTURE LAUNCHER CANDIDATES AND MATURATION PLAN
Sylvain Guédron, Centre National d'Etudes Spatiales (CNES), France

IAC-12.D2.4.5
EUROPEAN NEXT GENERATION LAUNCHER – REUSABILITY AS AN OPTION FOR FUTURE EUROPEAN LAUNCH SERVICES
Uwe Apel, Hochschule Bremen, Germany

IAC-12.D2.4.6
A TWO-STAGE-TO-ORBIT HYPERSONIC VEHICLE CONCEPT UTILIZING RBCC PROPULSION TECHNOLOGY
Wang Qing, College of Astronautics,Northwestern Polytechnical University, China

IAC-12.D2.4.7
RESEARCH ON EXPERIMENTAL VERIFICATION LAUNCH VEHICLE OF ADVANCED REUSABLE HYPERSONIC AEROSPACE VEHICLE ADVANCED TECHNOLOGY
Yu Yubin, China Academy of Launch Vehicle Technology, China

IAC-12.D2.4.8
SPACE SYSTEM ARCHITECTURE DECISIONS TO IMPROVE DEVELOPMENT RISK
Dale Arney, National Institute of Aerospace/Georgia Institute of Technology, United States

IAC-12.D2.4.9
FIREFLY – FUSION-POWERED INTERSTELLAR RENDEZVOUS AND EXPLORATORY FLYING LABORATORY
Mitchell Rodriguez, University of Alabama in Huntsville, United States

IAC-12.D2.4.10
MARS ONE YEAR MISSION CRAFT: SIZING OF "AIRBREATHING" MARS EXPLORATION VEHICLE
Antonella Ingenito, University of Rome "La Sapienza", Italy

IAC-12.D2.4.11
FUTURE-ORIENTED PARTIALLY RE-USABLE TRANSPORTATION SYSTEM FOR SPACECRAFT LAUNCH. MAIN PRINCIPLES TO DEVELOP MAIN PROPULSION SYSTEM.
Anatoly Kuzin, Khrunichev State Research & Production Space Center, Russia

IAC-12.D2.4.12
ANALYSIS OF UTILIZATION EFFICIENCY OF SPACE LAUNCH VEHICLE WITH REUSABLE FIRST STAGE IN SPACE ACTIVITY
Yuri Gusev, TSNIIMASH, Russia

IAC-12.D2.4.13
KEY CHALLENGES FOR POINT-TO-POINT TRANSPORTATION
Emma Hinds, The Tauri Group, United States
IAC-12.D2.4.14
A SUBORBITAL REUSABLE LAUNCH VEHICLE CONCEPT UTILIZING RBCC PROPULSION TECHNOLOGY
Chunlin Gong, Northwestern Polytechnical University, China

IAC-12.D2.4.15
CONCEPT STUDY OF AN ATMOSPHERIC REENTRY USING A WINGED TECHNOLOGY DEMONSTRATOR
Roberto Palumbo, CIRA Italian Aerospace Research Centre, Italy

IAC-12.D2.4.16
REDUCING SPACE TRANSPORTATION COST: REUSABILITY, MODULARITY AND SIMPLICITY
Adriaan Schutte, International Space University (ISU), France

D2.5. Future Space Transportation Systems Technologies

October 3 2012, 15:15 — TS16 (Sicilia, Palacongressi)

Chairs: *Yoshifumi Inatani, Institute of Space and Astronautical Science, Japan; Sylvain Guédron, Centre National d'Etudes Spatiales (CNES), France;*
Rapporteur: *William R. Claybaugh, II, Orbital Sciences Corporation, United States;*

IAC-12.D2.5.1
ACHIEVEMENTS OF HX PROGRAMME ON MATURATION-DEMONSTRATION OF NEW KEY CRYOGENIC TECHNOLOGIES
Yves PREL, Centre National d'Etudes Spatiales (CNES), France

IAC-12.D2.5.2
FUTURE LAUNCHERS PREPARATORY PROGRAMME (FLPP) – PREPARING THE NEXT GENERATION LAUNCHER THROUGH DEMONSTRATORS AND TECHNOLOGIES IN A SYSTEM DRIVEN APPROACH
Guy Pilchen, European Space Agency (ESA), France

IAC-12.D2.5.3
SUCCESS - ENHANCEMENTS OF COMPETENCES, SOFTWARE AND TECHNOLOGIES FOR ARIANE 5 ME
Menko Wisse, EADS Astrium Space Transportation, Germany

IAC-12.D2.5.4
THE ITALIAN SPACE AGENCY VEGA GNC PROJECT. FEASIBILITY OF A NATIONAL GUIDANCE, NAVIGATION AND CONTROL FOR THE VEGA LAUNCHER.
Gabriele Mascetti, Italian Space Agency (ASI), Italy

IAC-12.D2.5.5
SYSTEM DESIGN OF REUSABLE SOUNDING ROCKET
Atsushi Sasaki, Mitsubishi Heavy Industries, Ltd., Japan

IAC-12.D2.5.6
ADVANCED LAUNCHER TECHNOLOGY MATURATION SUPPORTED BY EU-AERONAUTIC RESEARCH PROJECTS
Martin Sippel, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D2.5.7
ADVANCED AVIATION TECHNOLOGY FOR REUSABLE LAUNCH VEHICLE IMPROVEMENT
Alexander S. Filatyev, Central Aero-HydroDynamic Institute, Russia

IAC-12.D2.5.9
AEROTHERMODYNAMICS OF GENERIC REENTRY VEHICLE WITH A SERIES OF AEROSPIKES AT NOSE
Gurunadh Velidi, University of Petroleum and Energy Studies, India

IAC-12.D2.5.10
A INTEGRATED AVIONICS SYSTEM ARCHITECTURE FOR FUTURE REUSABLE LAUNCH VEHICLE BASED ON TIME-TRIGGER
Wang Linna, China Academy of Launch Vehicle Technology, China

D2.6. Future Space Transportation Systems Verification and In-Flight Experimentation

October 4 2012, 10:15 — TS16 (Sicilia, Palacongressi)

Chairs: *Giorgio Tumino, European Space Agency (ESA), France; Charles E. Cockrell Jr., National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *Tetsuo Hiraiwa, Japan Aerospace Exploration Agency (JAXA), Japan;*

IAC-12.D2.6.1
THE IXV PROGRAMME STATUS AND PERSPECTIVES
Giorgio Tumino, European Space Agency (ESA), France

IAC-12.D2.6.2
TESTING THE DESCENT AND RECOVERY OF ESA'S INTERMEDIATE EXPERIMENTAL VEHICLE
Jose Maria Gallego Sanz, European Space Agency (ESA), France

IAC-12.D2.6.3
IN FLIGHT EXPERIMENTATION FOR THE IXV RE-ENTRY VEHICLE - OBJECTIVES, EXPERIMENT DESIGN AND IMPLEMENTATION
Carlos Pereira, RUAG Space, Switzerland

IAC-12.D2.6.4
DEVELOPMENT AND TESTING OF CERAMIC MATRIX COMPOSITE (CMC) THERMAL PROTECTION SYSTEM FOR THE IXV EUROPEAN ATMOSPHERIC RE-ENTRY DEMONSTRATOR.
Thierry Pichon, Snecma Propulsion Solide, France

IAC-12.D2.6.5
THE ROLE OF THE LARES MISSION IN THE VEGA LAUNCHER QUALIFICATION FLIGHT
Daniele Barbagallo, ESA, Italy

IAC-12.D2.6.6
FILAMENT WOUND SOLID ROCKET MOTORS FLIGHT DATA ANALYSES AND THEIR IMPACT ON PAYLOAD ENVIRONMENT
Daniele Barbagallo, ESA, Italy

IAC-12.D2.6.7
NASA'S SPACE LAUNCH SYSTEM ADVANCED BOOSTER ENGINEERING DEMONSTRATION AND RISK REDUCTION EFFORTS
Chris Crumbly, NASA MSFC, United States

IAC-12.D2.6.8
SHEFEX II FIRST MISSION REPORT
Hendrik Weihs, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D2.6.9
GNC POST FLIGHT ANALYSIS OF THE ITALIAN DROPPED TRANSONIC FLIGHT TESTS
Roberto Palumbo, CIRA Italian Aerospace Research Centre, Italy

IAC-12.D2.6.10
THE EXPERT QUALIFICATION AND ACCEPTANCE CAMPAIGN: A MULTI-PURPOSE EXPERIENCE FOR FUTURE RE-ENTRY MISSIONS
Federico Massobrio, Thales Alenia Space Italia, Italy

IAC-12.D2.6.11
FLIGHT TEST PROGRAM "AIR LAUNCH DEMONSTRATOR"
Dina Pogosyan, Air Launch Aerospace Corporation, Russia

IAC-12.D2.6.12
FLAP CONTROL SYSTEM (FPCS) FOR IXV RE-ENTRY DEMONSTRATOR.
Didier Verhoeven, Belgium

IAC-12.D2.6.13
AERODYNAMIC PERFORMANCE ANALYSIS OF THE IXV VEHICLE
Giuseppe Pezzella, CIRA Italian Aerospace Research Centre, Italy

IAC-12.D2.6.14
COTS ETHERNET BASED TELEMETRY SUBSYSTEM FOR THE INTERMEDIATE EXPERIMENTAL VEHICLE (IXV)
Daniel Gleeson, ACRA Control, Ireland

D2.7. Small Launchers: Concepts and Operations

October 4 2012, 15:15 — TS16 (Sicilia, Palacongressi)

Chairs: *Markus Jäger, Astrium Space Transportation, Germany; Harry A. Cikanek, National Oceanic and Atmospheric Administration (NOAA), United States;*
Rapporteur: *Nicolas Bérend, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France;*

IAC-12.D2.7.1
VEGA LAUNCHER AND ITS EVOLUTIONS
Antonio G. Accettura, AVIO S.p.A., Italy

IAC-12.D2.7.3
TECHNICAL CASE STUDIES AND STRATEGIC ASSESSMENTS OF AIR-LAUNCH SPACE TRANSPORTATION SYSTEMS
A.C. Charania, Particle 9, Inc., United States

IAC-12.D2.7.4
ROCKOON SUITABILITY FOR LAUNCHING SMALL SATELLITES INTO LEO ORBITS
Rafael Jorda-Siquier, Spain

IAC-12.D2.7.5
LIBRA, THE AIRBORNE LAUNCH PAD
Lucas Schoukroun, UAHuntsville, United States

IAC-12.D2.7.6
TRANSPORTATION SPACE SYSTEMS USING A REUSABLE UNMANNED AIRBORNE VEHICLE AS A FIRST STAGE
Alexander Degtyarev, Yuzhnoye State Design Office, Ukraine

IAC-12.D2.7.7
LOW COST ACCESS TO SPACE BOOSTER AIRCRAFT
Leo Teeney, University of Manchester, United Kingdom

IAC-12.D2.7.8
SMALL LAUNCHER ENABLED BY HYBRID ROCKET MOTOR TECHNOLOGY
Florin Mingireanu, Romanian Space Agency (ROSA), Romania

IAC-12.D2.7.9
MICRO-LAMBDA – A MICRO SATELLITE LAUNCH VEHICLE CONCEPT
Seiji Matsuda, IHI Aerospace Co, Ltd., Japan

IAC-12.D2.7.10
THE VLM-1 LAUNCH SYSTEM CONCEPT
Jonas Bianchini Fulindi, Instituto de Aeronáutica e Espaço (IAE), Brazil

D2.8. Heavy Lift Launchers Capabilities and New Missions

October 5 2012, 09:00 — TS16 (Sicilia, Palacongressi)

Chairs: *Martin Sippel, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany; Steve Creech, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *Kenneth Bruce Morris, Booz Allen Hamilton, United States;*

IAC-12.D2.8.1
SYMPOSIUM KEYNOTE: SPACE TRANSPORTATION IN ITALY - PAST, PRESENT AND FUTURE PERSPECTIVES
Gennaro Russo, Associazione Italiana di Aeronautica e Astronautica (AIDAA), Italy

IAC-12.D2.8.2
NASA'S SPACE LAUNCH SYSTEM: A HEAVY-LIFT PLATFORM FOR ENTIRELY NEW MISSIONS
Steve Creech, National Aeronautics and Space Administration (NASA), United States

IAC-12.D2.8.3
SPACE LAUNCH SYSTEM COMPLEX DECISION-MAKING PROCESS
Timothy Monk, Zero Point Frontiers Corp., United States

IAC-12.D2.8.4
NASA'S SPACE LAUNCH SYSTEM: MAXIMIZING LAUNCH VEHICLE AND PAYLOAD DESIGN VIA EARLY COMMUNICATIONS
Kenneth Bruce Morris, Booz Allen Hamilton, United States

IAC-12.D2.8.5
UNITED LAUNCH ALLIANCE – HISTORIC LAUNCH OF THE FIRST DELTA IV HEAVY FROM THE WEST COAST
Michael Berglund, United Launch Alliance, United States

IAC-12.D2.8.6
ADVANCED BOOSTER FOR NASA SPACE LAUNCH SYSTEM (SLS)
Donald Sauvageau, ATK Launch Systems, United States

IAC-12.D2.8.7
THE SPACE LAUNCH SYSTEM CAPABILITIES FOR ENABLING LUNAR, NEAR EARTH ASTERIOD AND MARS EXPLORATION MISSIONS
Benjamin Donahue, The Boeing Company, United States

IAC-12.D2.8.9
ATMOSPHERIC FLIGHT VEHICLE SYSTEM TECHNOLOGIES FOR HUMAN EXPLORATION OF MARS.
Charles E. Cockrell Jr., National Aeronautics and Space Administration (NASA), United States

IAC-12.D2.8.10
ENABLING AN AFFORDABLE LIQUID ADVANCED BOOSTER FOR THE SPACE LAUNCH SYSTEM
Steve Cook, Dynetics, United States

D2.9-D6.2. Joint Session on Private Human Access to Space: Sub-Orbital and Orbital Missions

October 5 2012, 14:00 — TS16 (Sicilia, Palacongressi)

Chairs: *Jens Lassmann, Astrium Space Transportation, Germany; Eleanor Aldrich, American Institute of Aeronautics and Astronautics (AIAA), United States;*
Rapporteur: ***Douglas O. Stanley, National Institute of*** *Aerospace, United States;*

IAC-12.D2.9-D6.2.1
PROPER ROLE OF GOVERNMENT IN COMMERCIAL CREW
Alan T. DeLuna, United States

IAC-12.D2.9-D6.2.2
SPACEX: REVOLUTIONIZING ACCESS TO SPACE
Brian Bjelde, SpaceX, United States

IAC-12.D2.9-D6.2.3
TRYING TO FIT A SQUARE PEG INTO A ROUND HOLE? APPLYING AIR LAW TO MANNED COMMERCIAL SPACEFLIGHT – THE CASE STUDY OF CURAÇAO
Frans von der Dunk, University of Nebraska-Lincoln, The Netherlands

IAC-12.D2.9-D6.2.4
ZEHST PROJECT: AN ULTRA HIGH SPEED CIVILIAN TRANSPORT
Christophe Chavagnac, EADS Astrium, France

IAC-12.D2.9-D6.2.5
THE FUTURE REGULATION OF SUBORBITAL FLIGHT IN EUROPE
Aron Lentsch, Orbspace Engineering, Austria

IAC-12.D2.9-D6.2.6
THE REINVENTION OF CREWED SUBORBITAL SPACEFLIGHT: DREAM OR REALITY?
ROBERT VELDHUYZEN, European Space Agency (ESA), retired, The Netherlands

IAC-12.D2.9-D6.2.7
INVITED PAPER: VIRGIN GALACTIC'S COMMERCIAL SPACELINER
Steve Isakowitz, Virgin Galactic L.L.C,

IAC-12.D2.9-D6.2.8
ROUNDTABLE DISCUSSION OF PAPERS AND PANELISTS
Douglas O. Stanley, National Institute of Aerospace, United States

D3. IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT

Coordinator: John C. Mankins, ARTEMIS Innovation Management Solutions, LLC, United States; Alain Pradier, European Space Agency (ESA), The Netherlands;

D3.1. Strategies & Architectures as the Framework for Future Building Blocks in Space Exploration and Development

October 1 2012, 15:15 — TS04 (Antares, Hall 2)
Chairs: John C. Mankins, ARTEMIS Innovation Management Solutions, LLC, United States; Maria Antonietta Perino, Thales Alenia Space Italia, Italy;
Rapporteur: William H. Siegfried, The Boeing Company, United States; Horst Rauck, Germany;

IAC-12.D3.1.1
INTERNATIONAL ACADEMY OF ASTRONAUTICS COMMISSION III ACTIVITIES IN SUPPORT OF SPACE EXPLORATION AND DEVELOPMENT
Giuseppe Reibaldi, International Academy of Astronautics (IAA), The Netherlands

IAC-12.D3.1.2
OUTLOOK OF POSSIBLE EUROPEAN CONTRIBUTIONS TO FUTURE EXPLORATION SCENARIOS AND ARCHITECTURES
Maria Antonietta Perino, Thales Alenia Space Italia, Italy

IAC-12.D3.1.3
EVOLVING ARCHITECTURE FOR HERRO (SPACE-BASED, TELEROBOTIC-ORIENTED) EXPLORATION OF THE MOON, NEOS, MARS AND VENUS
George Schmidt, National Aeronautics and Space Administration (NASA), United States

IAC-12.D3.1.4
ITINERANT HUMAN OUTPOST FOR FUTURE SPACE EXPLORATION
Nicole Viola, Politecnico di Torino, Italy

IAC-12.D3.1.5
A SPACE EXPLORATION STRATEGY THAT PROMOTES INTERNATIONAL AND COMMERCIAL PARTICIPATION
Dale Arney, National Institute of Aerospace/Georgia Institute of Technology, United States

IAC-12.D3.1.6
WHAT'S THE BIG IDEA? SEEKING TO TOP APOLLO
Brent Sherwood, Caltech/JPL, United States

IAC-12.D3.1.7
EXPLORATION OF THE SOLAR SYSTEM: FACT AND FANCY
Ralph L. McNutt, Jr., Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.D3.1.8
FUTURE SPACE EXPLORATION: FROM REFERENCE SCENARIO DEFINITION TO KEY TECHNOLOGIES ROADMAPS
Maria Antonietta Viscio, Thales Alenia Space Italia, Italy

IAC-12.D3.1.9
DESIGN AND DYNAMICS OF TRANSFORMABLE SPACECRAFT
Xin Ning, Northwestern Polytechnical University, China

IAC-12.D3.1.10
GLOBAL PLANNING AND CONTROL OF MULTITUDE OF SPACE VEHICLES FOR FORMING "WINDOWS" FOR LAUNCHING INTO ORBITS AND INTER-ORBITAL TRANSITIONS
Tatyana V. Labutkina, Dnepropetrovsk National University named after Oles' Gonchar, Ukraine

D3.2. Systems and Infrastructures to Implement Future Building Blocks in Space Exploration and Development

October 3 2012, 10:15 — TS04 (Antares, Hall 2)
Chairs: William H. Siegfried, The Boeing Company, United States; Scott Hovland, European Space Agency (ESA), The Netherlands; Paivi Jukola, Helsinki University of Technology (TKK), Finland; Rapporteur: Horst Rauck, Germany;

IAC-12.D3.2.1
ENABLING TECHNOLOGIES FOR SPACE EXPLORATION SYSTEMS: THE STEPS PROJECT RESULTS AND PERSPECTIVES
Maria Antonietta Perino, Thales Alenia Space Italia, Italy

IAC-12.D3.2.3
EVOLVED HUMAN SPACE EXPLORATION ARCHITECTURE USING COMMERCIAL LAUNCH AND PROPELLANT DEPOTS
Alan Wilhite, Georgia Institute of Technology, United States

IAC-12.D3.2.4
INFRASTRUCTURE BASED EXPLORATION - AN AFFORDABLE PATH TO SUSTAINABLE SPACE DEVELOPMENT
Robert Pittman, NASA Ames Research Center, United States

IAC-12.D3.2.5
AN APPROACH TO DEVELOP HUMAN SPACE TRANSPORTATION SYSTEMS FOR LOW EARTH ORBIT AND BEYOND
Kuniaki Shiraki, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D3.2.6
ESTABLISHMENT OF A SPACEPORT NETWORK ARCHITECTURE
Luke Roberson, National Aeronautics and Space Administration (NASA), United States

IAC-12.D3.2.9
NOVEL REACTION CONTROL OF SPACE MANIPULATORS WITH INCREASED ROBUSTNESS AGAINST SINGULARITIES AND PHYSICAL JOINT LIMITS
Silvio Cocuzza, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.D3.2.10
CRYOGENICS: GREENING OUT WAY THROUGH DEEP SPACE EXPLORATION.
Ashley Clayborn, University of Alabama in Huntsville, United States

D3.3. Novel Concepts and Technologies for Enable Future Building Blocks in Space Exploration and Development

October 3 2012, 15:15 — TS04 (Antares, Hall 2)

Chairs: *Christopher Moore, National Aeronautics and Space Administration (NASA), United States; Alain Dupas, European Bank for Reconstruction and Development, France;*
Rapporteur: *Junjiro Onoda, Japan Aerospace Exploration Agency (JAXA), Japan;*

IAC-12.D3.3.1
ENABLING FUTURE EXPLORATION OF THE MOON WITH THE GOOGLE LUNAR X PRIZE
Amanda Stiles, X PRIZE Foundation, United States

IAC-12.D3.3.2
THE NEXT GENERATION CANADARM PROJECT – ENABLING FUTURE ROBOTIC SERVICING MISSIONS
Layi Oshinowo, MDA Space Missions, Canada

IAC-12.D3.3.3
AUTOMATION AND ROBOTICS IN THE GERMAN SPACE PROGRAM
Bernd Sommer, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D3.3.4
ZERO REACTION WORKSPACE IN THE OPERATIONS OF MULTI DEGREES OF FREEDOM SPACE MANIPULATORS FOR ORBITAL MAINTENANCE
Silvio Cocuzza, CISAS – "G. Colombo" Center of Studies and Activities for Space, University of Padova, Italy

IAC-12.D3.3.5
DEVELOPMENT AND VALIDATION OF A MODULAR PARAMETRIC ANALYTICAL TOOL FOR SYSTEM ENGINEERING OF PLANETARY EXPLORATION ROVERS
Philipp Oettershagen, Germany

IAC-12.D3.3.6
TELEREACH.ORG THE COLLABORATIVE PROJECT TO BUILD A TELE-REACH OPERATIONAL SYSTEM OF SYSTEMS (TEOSS)
Marti Minoves, International Space University (ISU), Germany

IAC-12.D3.3.7
LOW-COST, MULTI-AGENT SYSTEMS FOR PLANETARY SURFACE EXPLORATION
Giuliano Punzo, University of Strathclyde, United Kingdom

IAC-12.D3.3.9
A NOVEL PROCESS FOR THE PRODUCTION OF LUNAR AND MARTIAN PHYSICAL ASSETS AND ITS EXPLOITATION FOR FUTURE SPACE MISSIONS
Giacomo Cao, Dipartimento di Ingegneria Chimica e Materiali, Centro Studi sulle Reazioni Autopropaganti (CESRA), Unità di Ricerca del Consiglio Nazionale delle Ricerche (CNR), Center for Advanced Studies, Research and Development in Sardinia (CRS4), Italy

D3.4. Space Technology and System Management Practices and Tools

October 5 2012, 09:00 — TS04 (Antares, Hall 2)

Chairs: *John C. Mankins, ARTEMIS Innovation Management Solutions, LLC, United States; Paivi Jukola, Helsinki University of Technology (TKK), Finland;*
Rapporteur: *Maria Antonietta Perino, Thales Alenia Space Italia, Italy; Hans E.W. Hoffmann, ORBComm Inc, Germany;*

IAC-12.D3.4.1
DESIGNING FOR THE FUTURE BY TESTING TODAY: A SUMMARY OF SPACEX SYSTEM MANAGEMENT PRACTICES
Dustin Doud, SpaceX, United States

IAC-12.D3.4.2
SPURRING INNOVATION IN SPACE-BASED ORGANIZATIONS – A MANAGEMENT PERSPECTIVE ON PAST SUCCESSES AND FUTURE ENDEAVORS
Steven Arnold, The Johns Hopkins University Applied Physics Laboratory, United States

IAC-12.D3.4.3
WHAT IS WRONG WITH SPACE SYSTEM COST MODELS? A SURVEY AND ASSESSMENT OF COST ESTIMATING APPROACHES
Shari Keller, University of Alabama in Huntsville, United States

IAC-12.D3.4.4
INSA VIRTUAL LABS: A NEW R+D FRAMEWORK FOR INNOVATIVE SPACE SCIENCE AND TECHNOLOGY
Alejandro Cardesin Moinelo, INSA, Ingeniería y Servicios Aeroespaciales, S.A., Spain

IAC-12.D3.4.5
SOCIAL NETWORKS - A TOOL FOR SPACE AGENCIES?
Leopold Summerer, European Space Agency (ESA), The Netherlands

IAC-12.D3.4.6
BASED ON CENTRAL COMPOSITE DESIGN METHOD SATELLITE MISSION DESIGN
Li Deng, Beihang University, China

IAC-12.D3.4.7
INDUSTRIAL EXPERIENCE FROM APPLYING TECHNOLOGY READINESS ASSESSMENT – THE VOLVO AERO CASE
Ulf Högman, Volvo Aero Corporation, Sweden

IAC-12.D3.4.8
TECHNOLOGICAL ROADMAPING AT CNES
Franck Durand-Carrier, Centre National d'Etudes Spatiales (CNES), France

IAC-12.D3.4.9
INDICATORS FOR DISRUPTIVE SPACE TECHNOLOGIES
Egbert Jan van der Veen, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D3.4.10
MEASURING INNOVATION: FUTURE ITALIAN TELECOMMUNICATION SYSTEMS
Elisa Duca, Agenzia Spaziale Italiana (ASI), Italy

IAC-12.D3.4.11
IDENTIFYING TECHNICAL MANAGEMENT AREAS THAT AFFECT PERFORMANCE TO INCREASE PROJECT EFFICIENCY
Salome Saliashvili, Univeristy of Alabama in Huntsville, United States

IAC-12.D3.4.12
ACQUISITION FOR BUILDING CAPABILITIES – A REFERENCE MODEL
Carlos Lino, INPE, Brazil

IAC-12.D3.4.13
EXPLORING R&D INVESTMENT AS A SPACE SECTOR TECHNOLOGY MANAGEMENT LEVER
Zoe Szajnfarber, George Washington University, United States

D4. 10th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FAR FUTURE

Coordinator: *Giuseppe Reibaldi, International Academy of Astronautics (IAA), The Netherlands; Hans E.W. Hoffmann, ORBComm Inc, Germany;*

D4.1. Novel Concepts and Technologies

October 2 2012, 10:15 — TS04 (Antares, Hall 2)

Chairs*: Claudio Bruno, University of Rome "La Sapienza", United States; Alain Dupas, European Bank for Reconstruction and Development, France;*
Rapporteur: *Paivi Jukola, Helsinki University of Technology (TKK), Finland; Hans E.W. Hoffmann, ORBComm Inc, Germany;*

IAC-12.D4.1.1
CRITICAL CAPABILITIES AND SYSTEMS FOR ECONOMIC DEVELOPMENT OF CISLUNAR SPACE: IS THE NBIC (NANO-BIO-INFO-COGNO) REVOLUTION CHANGING THE PROSPECTS?
Alain Dupas, European Bank for Reconstruction and Development, France

IAC-12.D4.1.2
THINKING TOMORROW
Leopold Summerer, European Space Agency (ESA), The Netherlands

IAC-12.D4.1.3
LIGHT(LY) STEPPING TO THE STARS: NANOSATS AND LIGHTSAILS AS INTERSTELLAR PRECURSORS
Louis Friedman, The Planetary Society, United States

IAC-12.D4.1.4
POSSIBILITIES OPENED BY ELECTRIC SOLAR WIND SAIL TECHNOLOGY
Sini Merikallio, Finnish Meteorological Institute, FMI, Finland

IAC-12.D4.1.5
AN EXAMINATION OF INTERSTELLAR STARSHIP DESIGNS
Richard Obousy, Icarus Interstellar, United States

IAC-12.D4.1.6
INSTANT STARSHIP-A REFERENCE PLAN FOR THE FIRST MANNED INTERSTELLAR MISSION
Giorgio Gaviraghi, exponential design lab, Italy

IAC-12.D4.1.7
INTERSTELLAR MISSION TO LALANDE 21185: POSSIBILITIES FOR THE FUTURE
Ugur Guven, Turkey

IAC-12.D4.1.8
SOLAR QUANTUM PROPULSION
Richard L. Fork, University of Alabama in Huntsville, United States

D4.3. Space Elevator Feasibility and Technology

October 4 2012, 10:15 — TS04 (Antares, Hall 2)

Chairs: *Peter Swan, SouthWest Analytic Network, United States; Robert E Penny, Cholla Space Systems, United States;*
Rapporteur: *Bruce Chesley, Boeing Space and Intelligence Systems, United States;*

IAC-12.D4.3.1
COSMIC STUDY OVERVIEW – SPACE ELEVATOR FEASIBILITY
Peter Swan, SouthWest Analytic Network, United States

IAC-12.D4.3.2
THE LAW OF THE SPACE ELEVATOR -- THE RELATIONSHIP TO THE LAW OF THE SPACE, THE SEA AND THE SKY
Sunao Kai, Nihon University, Japan

IAC-12.D4.3.3
SPACE ELEVATOR ROADMAP 2012
Akira Tsuchida, Earth-Track Corporation, Japan

IAC-12.D4.3.4
SPACE ELEVATOR CONOPS INITIAL THINKING
Robert E Penny, Cholla Space Systems, United States

IAC-12.D4.3.5
SPACE ELEVATOR DESIGN ASPECTS FOR THE ENVIRONMENT
Peter Swan, SouthWest Analytic Network, United States

IAC-12.D4.3.6
BENEFITS AND DEVELOPMENT OF A HIGH STAGE ONE FOR THE SPACE ELEVATOR
John Knapman, United Kingdom

IAC-12.D4.3.7
THE INTERACTION OF A CONDUCTING SPACE ELEVATOR WITH MAGNETIC AND ELECTRIC FIELDS IN THE NEAR-EARTH SPACE PLASMA
Anders Jorgensen, New Mexico Tech, United States

IAC-12.D4.3.8
ON THE DEPLOYMENT OF A SUBSATELLITE IN A SPACE ELEVATOR SYSTEM
Mehdi Keshmiri, Isfahan University of Technology, Iran

IAC-12.D4.3.9
MOTION OF THE SPACE ELEVATOR AFTER THE RIBBON RUPTURE
Vladimir S. Aslanov, Samara State Aerospace University, Russia

IAC-12.D4.3.10
PRODUCING A SPACE ELEVATOR TETHER USING A NEO: A PRELIMINARY ASSESSMENT
Andreas Hein, Technische Universität München, Germany

IAC-12.D4.3.12
MEO TETHERS ENABLING LOW-COST ORBITAL ACCESS
Roger X. Lenard, LPS, United States

IAC-12.D4.3.13
DEFLECTION OF TUMBLING ASTEROIDS BY MEANS OF SUN ORIENTED TETHERS
Nahum Melamed, The Aerospace Corporation, United States

D4.4. Contribution of Space Activities to Solving Global Societal Challenges

October 4 2012, 15:15 — TS04 (Antares, Hall 2)

Chairs: *John C. Mankins, ARTEMIS Innovation Management Solutions, LLC, United States; Giuseppe Reibaldi, International Academy of Astronautics (IAA), The Netherlands;*
Rapporteur: *Paivi Jukola, Helsinki University of Technology (TKK), Finland;*

IAC-12.D4.4.1
EMPLOYING THE USE OF GIS AND EMERGENT TECHNOLOGIES TO AID IN THE HEALTH CARE IN DEVELOPING COUNTRIES
Jeanne Holm, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States

IAC-12.D4.4.2
EXTREME LIVING SOLUTIONS: AUTONOMOUS HABITATS IT FOR EXTREME ENVIRONMENTS BASED ON SPACE TECHNOLOGY
Irene Lia Schlacht, Technische Universität Berlin, Germany

IAC-12.D4.4.3
SPACE SOLAR POWER CONTRIBUTION TO SOLVING WORLD ENERGY CHALLENGES
Giuseppe Reibaldi, International Academy of Astronautics (IAA), The Netherlands

IAC-12.D4.4.4
A THINK TANK CREATION FOR FUTURE STUDIES AND RESEARCH ON GAME CHANGING TECHNOLOGIES
Paivi Jukola, Helsinki University of Technology (TKK), Finland

IAC-12.D4.4.6
EC2LIPSE: AN INTERDISCIPLINARY STUDY OF SPACE-BASED GEOENGINEERING BY SOLAR RADIATION MANAGEMENT USING A SUN-EARTH L1-LOCATED SHIELD
Antoine Amrouni-Keiling, International Space University (ISU), France

IAC-12.D4.4.7
SOLAR-BASED POWER STATION – NEW CONCEPTION
Viktor A. Vorontsov, Lavochkin Association, Russia

IAC-12.D4.4.8
HARVESTING CHLORELLA SPP. FOR GREEN AEROSPACE FUELS PRODUCTION USING FLOCCULANTS
Innocent Udom, University of South Florida, United States

IAC-12.D4.4.9
SPACE ENTREPRENEURS, GLOBAL CITIZENS AND UNIVERSAL CONSCIOUSNESS
Cameron Ashkar, The Global Alliance for Outer Space Development, Inc., United States

D5. 45th IAA SYMPOSIUM ON SAFETY AND QUALITY IN SPACE ACTIVITIES

Coordinator: *Jeanne Holm, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States;*

D5.1. Insuring Quality and Safety in a Cost Constrained Environment: Which Trade-Off?

October 4 2012, 10:15 — TS02 (Centauri, Hall 2)

Chairs: *Manola Romero, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France; Alexander S. Filatyev, Central Aero-HydroDynamic Institute, Russia;*
Rapporteur: *Garett Smith, Airbus SAS, France;*

IAC-12.D5.1.1
THE NEW GENERATION TELECOMMUNICATION SATELLITE SIMULATOR: AN ANALYSIS AND VERIFICATION TOOL OF CAST TELECOMMUNICATION SATELLITE SYSTEM DESIGN AND VALIDATION INFRASTRUCTURE
Zhengzhe Wei, China Academy of Space Technology (CAST), China

IAC-12.D5.1.3
RELIABILITY ASPECTS OF STUDENT SATELLITE SYSTEM
RAJU M, PES Institute of Technology, India

IAC-12.D5.1.4
USING COMMERCIAL-GRADE ELECTRONICS IN SPACE: ANALYSIS OF BENEFITS, RISKS AND COSTS
Simon Vanden Bussche, ESA, The Netherlands

IAC-12.D5.1.5
PURSUING THE ADVANCEMENT OF SPACE SAFETY: THE CASE OF ISSF&IAASS
Simonetta Di Pippo, Italian Space Agency (ASI), The Netherlands

IAC-12.D5.1.6
WAYS OF COMPLIANCE WITH SAFETY AND DEBRIS MITIGATION REGULATIONS: TECHNICAL AND COST APECTS
Isabelle RONGIER, Centre National d'Etudes Spatiales (CNES), France

IAC-12.D5.1.7
FLEXIBLE AND ADAPTABLE MISSION ASSURANCE APPROACH FOR LAUNCH VEHICLE MISSION SUCCESS
Gary Whitmer, United States

IAC-12.D5.1.8
INTEGRATED OPTIMIZATION AS A MEAN TO SOLVE A TRADE-OFF BETWEEN A QUALITY AND SAFETY OF A SPACE LAUNCHER
Alexander Golikov, Central Aero-HydroDynamic Institute, Russia

IAC-12.D5.1.9
IS MANNED MARS EXPLORATION TOO RISKY? HOW SHOULD SAFETY BE DEALT WITH?
Richard Heidmann, Planete Mars, France

IAC-12.D5.1.10
THE PRACTICAL CONFIDENCE PRINCIPLE AS THE CRITERION OF THE STABLE FUNCTIONING OF A SPACE SYSTEM
Vadim Kadzhaev, Federal State Unitary Enterprize CENTER FOR GROUND SPPACE INFRASTRUCTURE OPERATION (FGUP TsENKI), Russia

IAC-12.D5.1.11
APPLICATION OF COST-OF-QUALITY TECHNIQUES IN THE PROCUREMENT OF SPACE SYSTEMS.
Angeliki Kapoglou, University College London, United Kingdom

IAC-12.D5.1.12
HOW TO MANAGE COMPLEXITY AND QUALITY IN SPACE APPLICATIONS
Bernhard Bals, IABG Industrieanlagen - Betriebsgesellschaft mbH, Germany

D5.2. Knowledge Management and Collaboration in Space Activities

October 4 2012, 15:15 — TS02 (Centauri, Hall 2)

Chairs: *Jeanne Holm, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States; Roberta Mugellesi-Dow, European Space Agency (ESA), Germany;*
Rapporteur: *Lionel Baize, Centre National d'Etudes Spatiales (CNES), France;*

IAC-12.D5.2.1
SHARING KNOWLEDGE ACROSS SPACE ORGANIZATIONS, THE IAF KNOWLEDGE MANAGEMENT TECHNICAL COMMITTEE
Jeanne Holm, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States

IAC-12.D5.2.2
CAPTURING KNOWLEDGE TO REDUCE THE PROJECTS' RISKS
Lionel Baize, Centre National d'Etudes Spatiales (CNES), France

IAC-12.D5.2.3
CAPTURING OF EXPERIENCE
Siegmar Pallaschke, Consultant, Germany

IAC-12.D5.2.4
COMPETENCE MANAGEMENT CHALLENGES AT THE EUROPEAN SPACE OPERATIONS CENTRE
Roberta Mugellesi-Dow, European Space Agency (ESA), Germany

IAC-12.D5.2.5
THE INFORMATION KNOWLEDGE FLOW WITHIN A KNOWLEDGE ORGANISATION: IT'S ALL ABOUT PEOPLE. A CASE STUDY OF THE GERMAN AEROSPACE CENTER DLR
Uwe Knodt, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.D5.2.7
HUMAN FACTOR IN TEAM INTERACTION, INFORMATION FLOW AND DECISION MAKING WITHIN ISS OPERATIONS
Andrea Guidi, HE Space, Germany

IAC-12.D5.2.8
ROSETTA KNOWLEDGE MANAGEMENT – LESSONS-LEARNED
Joe Zender, European Space Research and Technology Centre, ESA-ESTEC, The Netherlands

IAC-12.D5.2.9
DOCUMENT SHARING BY USING CROSS-SEARCH SYSTEM IN JAXA
Yoshiki Matsunaga, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D5.2.10
TECHNOLOGICAL ASPECTS AND KPIS OF A KM SYSTEM AT THE EUROPEAN SPACE OPERATIONS CENTRE
Raul Cano Argamasilla, Terma GmbH at ESA/ESOC, Germany

IAC-12.D5.2.11
COLLABORATION ON ISS EXPERIMENT DATA AND KNOWLEDGE REPRESENTATION
Ed Kuijpers, National Aerospace Laboratory (NLR), The Netherlands

IAC-12.D5.2.12
CAPTURING AND MANAGING KNOWLEDGE FOR MISSION SUCCESS AT THE US AIR FORCE
Jeanne Holm, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States

D5.3. Space Weather and Effects: Prediction, Analysis and Protection

October 5 2012, 14:00 — TS02 (Centauri, Hall 2)

Chairs: *Jean-Francois Roussel, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France; Mengu Cho, Kyushu Institute of Technology, Japan;*

IAC-12.D5.3.1
LOCATING HIGH TEMPERATURE-LOW EMISSION PLASMA IN THE CORONA
Kerianna Freiderich, University of Alabama in Huntsville, United States

IAC-12.D5.3.2
ANALYSIS OF INTERPLANETARY SHOCK WAVES AND THEIR IMPACT ON SPACE WEATHER
Jaewon Choi, University of Alabama in Huntsville, United States

IAC-12.D5.3.3
RADIATION BELT OBSERVATIONS RELATED TO THE SPACE WEATHER IN JAPAN TAKAHIRO OBARA (TOHOKU UNIVERSITY/JAPAN AEROSPACE EXPLORATION AGENCY)
Takahiro Obara, Tohoku University, Japan

IAC-12.D5.3.4
SOLAR CYCLE VARIATION OF "KILLER" ELECTRONS AT GEOSYNCHRONOUS ORBIT AND ELECTRON FLUX CORRELATION WITH THE SOLAR WIND PARAMETERS AND ULF WAVES INTENSITY
Alexander Potapov, Russian Academy of Science-Siberian Branch, Russia

IAC-12.D5.3.5
SPACE RADIATION ENVIRONMENT IN LOW EARTH ORBIT MEASURED FROM 2006 THROUGH 2011
Hideki Koshiishi, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D5.3.6
USING TOTAL ELECTRON CONTENT AS INDEX OF IONOSPHERIC RESPONSE TO MAGNETIC ACTIVITY AT AKURE WITHIN EQUITORIAL ANOMALY
Rasheedat Bola Abdulrahim, Nigeria

IAC-12.D5.3.7
SEASONAL VARIATION OF WORLDWIDE SQ (H)
TEMITOPE OWOLABI, African Regional Center for Space Science and Technology Education in English (ARCSSTE-E), Nigeria

IAC-12.D5.3.8
MODELING SOLAR RADIATION
Monica Ebert, International Space University (ISU), United States

IAC-12.D5.3.9
DEVELOPMENT OF THE ESA ENERGETIC PARTICLE TELESCOPE (EPT) FOR FLIGHT ON BOARD PROBA V
Dirk Claessens, QinetiQ Space nv, Belgium

IAC-12.D5.3.10
MEASUREMENT RESULT OF THE NEUTRON MONITOR ONBOARD SPACE ENVIRONMENT DATA ACQUISITION EQUIPMENT - ATTACHED PAYLOAD (SEDA-AP)
Kiyokazu Koga, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D5.3.11
ATOMIC OXYGEN MONITOR SYSTEM ONBOARD SUPER LOW ALTITUDE TEST SATELLITE
Yugo Kimoto, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.D5.3.12
SPACE WEATHER EFFECTS AND SPACE OPERATIONS PROTECTION
Saiteja Vangala, National Law University,Delhi,India, India

IAC-12.D5.3.13
PRELIMINARY REPORT ON ON-ORBIT EXPERIMENT ON HIGH VOLTAGE TECHNOLOGY DEMONSTRATION SATELLITE,HORYU-2
Akitoshi Takahashi, Kyushu Institute of Technology, Japan

IAC-12.D5.3.14
SPACECRAFT PLASMA INTERACTIONS: THE OPEN SOURCE SPIS CODE AFTER TEN YEARS OF DEVELOPMENT
Jean-Francois Roussel, Office National d'Etudes et de Recherches Aérospatiales (ONERA), France

IAC-12.D5.3.15
MISSION FAILURE OF AN INTEGRATED PROCESSOR AND RADIATION HARDENING TECHNOLOGY RESEARCH
Fei Zhou, Shanghai Institute of Satellite Engineering, China

D6. SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES

Coordinator: *John Sloan, Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST), United States;*

D6.1. Commercial Space Flight Safety and Emerging Issues

October 2 2012, 15:15 — TS11 (Egadi, Palacongressi)

Chairs: *John Sloan, Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST), United States; Christophe Chavagnac, EADS Astrium, France;*
Rapporteur: *Gennaro Russo, Associazione Italiana di Aeronautica e Astronautica (AIDAA), Italy;*

IAC-12.D6.1.1
SYMPOSIUM KEYNOTE: COMMERCIAL SPACE LAUNCHES SAFETY IN BRAZIL – RECENT PROGRESS
Carlos Lino, INPE, Brazil

IAC-12.D6.1.2
ACCEPTABLE LEVELS OF SAFETY FOR THE COMMERCIAL SPACE FLIGHT INDUSTRY
Andy Quinn, Saturn Safety Management Systems Ltd, United Kingdom

IAC-12.D6.1.3
CERTIFICATION VERSUS LICENSING FOR HUMAN SPACE FLIGHT IN COMMERCIAL SPACE TRANSPORTATION
George Nield, Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST), United States

IAC-12.D6.1.5
A RESPONSE SURFACE MODEL FOR THE EFFECTS OF THE ATMOSPHERIC DRAG ON THE INSTANTANEOUS IMPACT POINT (IIP) OF A ROCKET
JeongJae Seo, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of

IAC-12.D6.1.6
AERONAUTIC VS. SPACE-LIKE SAFETY OF FLIGHT: WHAT REALLY MATTERS
Christophe Chavagnac, EADS Astrium, France

IAC-12.D6.1.7
EVALUATION OF COMMERCIAL HUMAN SPACEFLIGHT LAWS AND REGULATIONS IN THE UNITED STATES
Christine Fanchiang, University of Colorado, United States

IAC-12.D6.1.8
DEVELOPMENT OF A LAND USE, PLANNING AND ARCHITECTURAL VOCABULARY FOR COMMERCIAL SPACEPORT PROJECTS
Charles Lauer, Rocketplane Global, Inc., United States

IAC-12.D6.1.9
ONE OF THESE THINGS IS NOT LIKE THE OTHERS: RELATING ICAO ANNEX 14 TO SPACEPORTS
Diane Howard, McGill University, United States

IAC-12.D6.1.10
CERTIFICATION AND APPROVAL OF SUB-ORBITAL AND ORBITAL AIRCRAFT (SOA): CHALLENGES AND PERSPECTIVES
Jean-Bruno Marciacq, European Aviation Safety Agency (EASA), Germany

IAC-12.D6.1.11
STUDENT AEROSPACE CHALLENGE
Johanna Chauvin, IDEST, University Paris Sud, France

E1. SPACE EDUCATION AND OUTREACH SYMPOSIUM

Coordinator: *Chris Welch, International Space University (ISU), France;*

E1.1. Ignition - Primary Space Education

October 1 2012, 15:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Shamim Hartevelt-Velani, European Space Agency (ESA), The Netherlands; Gulnara T. Omarova, Ministry of Transport and Communications, Kazakhstan;*
Rapporteur: *Chris Welch, International Space University (ISU), France;*

IAC-12.E1.1.1
SYMPOSIUM KEYNOTE: INSPIRING THE NEXT GENERATION
Leland Melvin, National Aeronautics and Space Administration (NASA), United States

IAC-12.E1.1.2
WALK TO THE EDGE OF THE SOLAR SYSTEM AT THE GRAVITY DISCOVERY CENTRE
Marina Pitts, The University of Western Australia, Australia

IAC-12.E1.1.3
SPACESHIP EARTH - TAKE YOUR CLASSROOM INTO SPACE
Shamim Hartevelt-Velani, European Space Agency (ESA), The Netherlands

IAC-12.E1.1.4
THE STANFORD YOUNG ASTRONAUTS PROGRAM: A MODEL FOR SUSTAINABLE OUTREACH
Sarah Houts, Stanford University, United States

IAC-12.E1.1.5
STAR SEARCH: TEACHING ASTRONOMY USING SERIOUS GAMING
Phillip Spencer, Victorian Space Science Education Centre, Australia

IAC-12.E1.1.6
THE PULSE OF THE NEXT GENERATION; WHAT STUDENTS ARE SAYING ABOUT SPACE EXPLORATION VIA THE WEWANTOURFUTURE INITIATIVE
Bruce Davis, University of Colorado, United States

E1.2. Lift Off - Secondary Space Education

October 2 2012, 10:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Shamim Hartevelt-Velani, European Space Agency (ESA), The Netherlands; Dennis Stone, World Space Week Association, United States;*
Rapporteur: *Vera Mayorova, Bauman Moscow State Technical University, Russia;*

IAC-12.E1.2.1
INITIATION AND DEVELOPMENT OF INTERNATIONAL COLLABORATION AMONG THE FUTURE SPACE WORKFORCE VIA THE DESIGN AND DEVELOPMENT OF A STEM TOOL
Christina Carmen, University of Alabama in Huntsville, United States

IAC-12.E1.2.2
ATTITUDE CONTROL ON THE "MAX VALIER" STUDENT SATELLITE: A PROJECT BY HIGH SCHOOL STUDENTS
Sandra Zuccaro, Max Valier Technical High School, Italy

IAC-12.E1.2.3
BENEFITS OF THE CANSAT PROGRAM IN THE AUSTRALIAN SECONDARY SCHOOL SYSTEM
Milorad Cerovac, The King David School, Australia

IAC-12.E1.2.4
DEVELOPMENT OF THE SPACE EDUCATION PROGRAM FOR THE NEXT GENERATION USING EARTH OBSERVATION DATA
Tohru Takahashi, Oita National College of Technology, Japan

IAC-12.E1.2.5
SPACE EDUCATION AND OUTREACH BEYOND CLASSROOMS-INNOVATIVE APPROACHES IN THE LOCAL COMMUNITY BY INDIVIDUALS AND NON-GOVERNMENT BODIES, TO INSPIRE AND INVOLVE SCHOOL STUDENTS IN SHARED LEARNING EXPERIENCES
Aafaque Khan, Maulana Azad National Institute of Technology, India

IAC-12.E1.2.6
EEE+14 SPACE EDUCATION PROGRAM – A SUCCESS STORY OF EDUCATIONAL INNOVATION IN COLOMBIA
Aldo Esteban Sabogal, Colombian Association Astronautics (ASTCOL), Colombia

IAC-12.E1.2.7
CELESTIAL MECHANICS AND ASTRODYNAMICS WORKSHOP FOR HIGH-SCHOOL STUDENTS: AN ITALIAN EXPERIENCE
Giacomo Tommei, University of Pisa, Italy

IAC-12.E1.2.8
MOBILIZING SECONDARY SCHOOL STUDENTS TO MONITOR LOCAL ENVIRONMENTAL PROBLEMS WITH EARTH OBSERVATION DATA
Krištof Oštir, SPACE-SI, Slovenia

IAC-12.E1.2.9
SPACE SCIENCE EDUCATION IN PHILIPPINE SECONDARY SCHOOLS: THE CURRENT STATUS AND FUTURE DEVELOPMENT PLANS
Rogel Mari Sese, The Philippines

IAC-12.E1.2.10
ISS EDUCATION PROGRAM "JAXA SPACEFLIGHT SEEDS KIDS I"
Tamotsu Nakano, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.E1.2.11
ASTRONOMY IMMERSION AND K-12 EDUCATION: A CRUCIAL LINK IN INSPIRING UNDERREPRESENTED STUDENTS TO EXCEL IN STEM EDUCATION THROUGH INNOVATIVE INSTRUCTION, STAKEHOLDER PARTNERSHIPS AND IMMERSIVE ASTRONOMY RESEARCH
Kareen Borders, University of Washington, United States

IAC-12.E1.2.12
EXPLORING AND ENGAGING EARTH AND SPACE SCIENCE EDUCATORS
Mark Gargano, Curtin University of Technology, Australia

E1.3. On Track - Undergraduate Space Education

October 3 2012, 15:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Naomi Mathers, Victorian Space Science Education Centre, Australia; Marilyn Steinberg, Canadian Space Agency, Canada;*
Rapporteur: *Olga Zhdanovich, European Space Agency (ESA), The Netherlands;*

IAC-12.E1.3.1
HUNTING FOR HABITABLE WORLDS: ENGAGING STUDENTS IN AN ADAPTIVE ONLINE SETTING
Lev Horodyskyj, Arizona State University, United States

IAC-12.E1.3.2
HOW A STUDENT CANSAT COMPETITION HELPED US DEVELOP QUALIFIED WORKFORCE
Mohammad Ebrahimi, Aerospace Research Institute, Iran

IAC-12.E1.3.3
UTILIZING HIGH POWERED ROCKETRY AS A TOOL FOR SPACE EDUCATION VIA STUDENT LAUNCH PROJECTS
Brandon Setayesh, University of Alabama in Huntsville, United States

IAC-12.E1.3.4
ASSESSING THE CORRELATION BETWEEN STUDENT BACKGROUND AND SUCCESS IN STEM AND SPACE EDUCATION
Samantha Shine, University of Alabama in Huntsville, United States

IAC-12.E1.3.5
DEVELOPMENT OF A ROBOTIC MANIPULATOR ARM FOR THE EXPERIMENTAL MARS ROVER: A PROBLEM-BASED LEARNING IN SPACE ROBOTICS
Ali Haydar Göktoğan, Australian Center for Field Robotics, Australia

IAC-12.E1.3.6
TEACHING SPACE LAW IN LAW SCHOOLS, A NECESSARY CHALLENGE IN THE DEVELOPING COUNTRIES
Camilo Guzman, UNIVERSIDAD SERGIO ARBOLEDA, Colombia

IAC-12.E1.3.7
A NEW UNDERGRADUATE COURSE ON THE PHYSICS OF SPACE SITUATIONAL AWARENESS
Francis Chun, U.S. Air Force, United States

IAC-12.E1.3.8
SPACE EDUCATION THROUGH THE INTERNATIONAL CANSAT COMPETITION – A PLATFORM FOR HIGHER ACHIEVEMENT IN STEM FIELDS
John Alcorn, University of Alabama in Huntsville, United States

IAC-12.E1.3.9
TEACHING PRACTICAL LEADERSHIP IN MIT SATELLITE DEVELOPMENT CLASS: AN APPROACH TO MONITOR AND TO QUANTIFY LEADERSHIP SKILLS DEVELOPMENT ACROSS THE TEMPORAL EVOLUTION OF THE PROJECT
Alessandra Babuscia, Massachusetts Institute of Technology (MIT), United States

IAC-12.E1.3.10
ADVANCED SPACECRAFT OPERATIONS TRAINING FOR UNDERGRADUATE UNIVERSITY STUDENTS
Markus Pietras, Technische Universität München, Germany

IAC-12.E1.3.11
THE CANADIAN/NORWEGIAN STUDENT SOUNDING ROCKET PROGRAM (CANOROCK) UPDATES AND GRADUATE TRAINING
David Miles, University of Alberta, Canada

E1.4. In Orbit - Postgraduate Space Education

October 2 2012, 15:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Angela Phillips Diaz, Purdue University, United States; David B. Spencer, The Pennsylvania State University, United States;*
Rapporteur: *Olga Zhdanovich, European Space Agency (ESA), The Netherlands;*

IAC-12.E1.4.1
A QUARTER-CENTURY OF '3IS' SPACE EDUCATION – 25 YEARS OF THE INTERNATIONAL SPACE UNIVERSITY
Chris Welch, International Space University (ISU), France

IAC-12.E1.4.2
REFORMING EDUCATIONAL PROGRAMS IN THE DOMAIN OF SPACE TECHNOLOGIES IN UKRAINE (ACCORDING TO RESULTS OF TEMPUS-CRIST PROJECT IMPLEMENTATION)
Viktor Khutornyi, National Aerospace Educational Center of youth, Ukraine

IAC-12.E1.4.3
MISSION CRITICAL: A GENERATION OF SOCIAL SCIENTISTS AND HUMANITIES SCHOLARS WELL-VERSED IN SPACE
Kathryn Denning, York University, Canada

IAC-12.E1.4.4
GRADUATE SPACE VEHICLE DESIGN
Jonathan Black, Air Force Institute of Technology, United States

IAC-12.E1.4.5
COMMERCIAL SPACEFLIGHT OPERATIONS: GRADUATE LEVEL CURRICULUM DEVELOPMENT
Bradley Cheetham, University of Colorado, United States

IAC-12.E1.4.6
THE HELMHOLTZ SPACE LIFE SCIENCES RESEARCH SCHOOL (SPACELIFE): THE FIRST GENERATION OF DOCTORAL CANDIDATES
Christine Hellweg, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.E1.4.7
THE CREATION OF A UNIQUE INTERDISCIPLINARY GRADUATE COURSE IN AEROSPACE MEDICINE
Kris Lehnhardt, George Washington University, United States

IAC-12.E1.4.8
MASTER PROGRAM ON SPACE TECHNOLOGY APPLICATIONS (MASTA) IN SATELLITE COMMUNICATIONS
Hooman Jazebizadeh, Beihang University, China

IAC-12.E1.4.9
THE IMPACT OF THE AFRICAN REGIONAL CENTRE FOR SPACE SCIENCE AND TECHNOLOGY EDUCATION IN ENGLISH'S POSTGRADUATE DIPLOMA PROGRAMME
Oladosu Olakunle, African Regional Center for Space Science and Technology Education in English (ARCSSTE-E), Nigeria

E1.5. Enabling the Future - Developing the Space Workforce

October 4 2012, 10:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Annalisa Weigel, Massachusetts Institute of Technology (MIT), United States; Olga Zhdanovich, European Space Agency (ESA), The Netherlands;*
Rapporteur: *Amalio Monzon, Laboratory for Space and Microgravity Research (LEEM), United Kingdom;*

IAC-12.E1.5.1
ANALYSIS OF GLOBAL SPACE WORKFORCE AND EDUCATION
Mariel Borowitz, Space Foundation, United States

IAC-12.E1.5.2
PREPARING YOUNG PROFESSIONALS FOR PROJECT AND ENGINEERING LEADERSHIP AT NASA
Edward J. Hoffman, National Aeronautics and Space Administration (NASA), United States

IAC-12.E1.5.3
THE APPROACH AND CHALLENGES FOR THE ENHANCEMENT OF HUMAN RESOURCES IN ISAS/JAXA
Maki Yoshihara, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.E1.5.4
DEVELOPING A SPACE WORKFORCE IN AN EMERGING NATION THROUGH INTER-REGIONAL COOPERATION
Ahmed Al Mansoori, Emirates Institution for Advanced Science and Technology (EIAST), United Arab Emirates

IAC-12.E1.5.5
ANALYZING THE IMPACT AND BENEFITS OF UNDERGRADUATE AND GRADUATE STUDENT RESEARCH AT THE INTERNATIONAL ASTRONAUTICAL CONGRESS: THE IAC AS A TOOL FOR DEVELOPING THE FUTURE GLOBAL SPACE WORKFORCE
Chrystal Morgan, University of Alabama in Huntsville, United States

IAC-12.E1.5.6
2001-2011: ITALIAN – ARGENTINIAN COOPERATION ON EARLY WARNING AND DISASTER MANAGEMENT TRAINING PROGRAM
Francesca Ines Moretto, Agenzia Spaziale Italiana (ASI), Italy

IAC-12.E1.5.7
DELICACY RISK MANAGEMENT OF SATELLITE PROJECT
Lei Zhao, DFH Satellite Co., Ltd., China

IAC-12.E1.5.8
DEVELOPING DIVERSE FUTURE WORKFORCE: NASA CENTER FOR AEROSPACE DEVICE RESEARCH AND EDUCATION AT NORTH CAROLINA CENTRAL UNIVERSITY
Gordana Vlahovic, North Carolina Central University, United States

IAC-12.E1.5.9
THE US UNIVERSITY NANOSAT PROGRAM, ENABLING SPACECRAFT EDUCATION THROUGH NATIONWIDE COMPETITION
Bruce Davis, University of Colorado, United States

IAC-12.E1.5.10
IMPACT OF THE ESA EDUCATION PROGRAMMES ON DEVELOPMENT YOUNG SPACE WORKFORCE IN POLAND
Jaroslaw Jaworski, Students Space Association, Poland

IAC-12.E1.5.11
WOMEN IN AEROSPACE IN NIGERIA: MOVING FORWARD
Lami Ali-Fadiora, African Regional Center for Space Science and Technology Education in English (ARCSSTE-E), Nigeria

IAC-12.E1.5.12
GOVERNMENT INITIATIVES TO SUPPORT, DEVELOP, AND ENABLE THE SOUTH AFRICAN SPACE INDUSTRY
Marie Botha, CSIR, South Africa

IAC-12.E1.5.13
SPACE-BASED TECHNOLOGY IN CAPACITY BUILDING FOR DEVELOPMENT
ADEBAYO OJO, Nigeria

IAC-12.E1.5.14
ALL HANDS ON DECK: FROM BUILDING SKYSCRAPERS TO BUILDING THE SPACE INFRASTRUCTURE
Edythe Weeks, Webster University Worldwide, United States

IAC-12.E1.5.15
SPACE FOR ALL: SPACE FOR AFRICA
Marlene MacLeish, United States

IAC-12.E1.5.16
THE LAUNCH INTO A SPACE CAREER: OPPORTUNITIES FOR YOUNG WOMEN
Paola Belingheri, Women in Aerospace Europe, The Netherlands

E1.6. Calling Planet Earth - Space Outreach to the General Public

October 4 2012, 15:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Valerie Anne Casasanto, NASA Goddard/University of Maryland, Baltimore County (UMBC), United States; Carol Christian, STScI, United States;*
Rapporteur: *Gulnara T. Omarova, Ministry of Transport and Communications, Kazakhstan;*

IAC-12.E1.6.1
SPACE SYNAPSE SYSTEMS: SPACEFARER "CALLING PLANET EARTH"
Anna Hill, Space Synapse Ltd, United Kingdom

IAC-12.E1.6.2
DESIGNING A SUSTAINABLE MOON BASE 3D ENVIRONMENT AS AN INTERACTIVE LEARNING TOOL
Olga Bannova, University of Houston, United States

IAC-12.E1.6.3
COMPARATIVE ANALYSIS OF SPACE AWARENESS AMONG MEDIA PRACTITIONERS IN NIGERIA
Lami Ali-Fadiora, African Regional Center for Space Science and Technology Education in English (ARCSSTE-E), Nigeria

IAC-12.E1.6.4
WHAT CAN SPACE CONTRIBUTE TO GLOBAL STEM EDUCATION? A TEAM PROJECT AT ISU-SSP12
Guy Boy, Florida Institute of Technology, United States

IAC-12.E1.6.5
THE MILKY WAY CLUB: A NEW APPROACH OF COMMUNITY CLUBS
Nouf Al-Jalaud, Saudi Arabia

IAC-12.E1.6.6
PROMOTING SPACE ACTIVITIES IN POLAND AND THE REGION IN SUPPORT OF ESA ACCESSION THROUGH THE KOSMONAUTA.NET WEB SERVICE
Michal Moroz, kosmonauta.net, Poland

IAC-12.E1.6.7
REACHING OUT TO THE GENERAL PUBLIC VIA SOCIAL MEDIA AND BEYOND – TIME TO THINK DIFFERENT
Marco Trovatello, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.E1.6.8
AIRM - THE LINK BETWEEN MISSION ANALYST AND THE GENERAL PUBLIC
Bastian Olberts, University of Stuttgart, Germany

IAC-12.E1.6.9
CREATE SPACE ON EARTH: LEVERAGE THE PROXIMITY FACTOR
Beth Beck, National Aeronautics and Space Administration (NASA), United States

IAC-12.E1.6.10
SPACE TECHNOLOGY OUTREACH ACTIVITIES IN IRAN: PAST, PRESENT AND FUTURE HORIZONS
Mahsa Taheran, Iran

IAC-12.E1.6.11
A SIMPLE APPROACH TO THE PUBLIC ACCEPTANCE OF TECHNOLOGICAL PROJECTS
Roland Antonius Gabrielli, Institute of Space Systems, Universität Stuttgart, Germany

IAC-12.E1.6.12
ON UNIQUE APPROACH OF KIBO UTILIZATION PROMOTION
Hisano Kamimura, Japan Aerospace Exploration Agency (JAXA), Japan

E1.7. New Worlds - Innovative Space Education and Outreach

October 5 2012, 09:00 — TS18 (Sardegna, Palacongressi)

Chairs: *Jean-Daniel Dessimoz, Western Switzerland University of Applied Sciences (HESSO.HEIG-VD) and Swiss Association for Astronautics, Switzerland; Vera Mayorova, Bauman Moscow State Technical University, Russia;*
Rapporteur: *Carol Christian, STScI, United States;*

IAC-12.E1.7.1
KIBO HI-VISION EARTHVIEW EDUCATIONAL SYSTEM DEVELOPMENT
Susumu Yoshitomi, Japan Space Forum, Japan

IAC-12.E1.7.2
CONCEPT OF USING INNOVATIVE-EDUCATIONAL UNIVERSITY CENTERS OF SPACE SERVICES AS AN INNOVATION FOR SPACE EDUCATION
Vera Mayorova, Bauman Moscow State Technical University, Russia

IAC-12.E1.7.3
PATHWAYS TO SPACE: A MISSION TO FOSTER THE NEXT GENERATION OF SCIENTISTS AND ENGINEERS
Kerrie Dougherty, Powerhouse Museum, Australia

IAC-12.E1.7.4
SPACE TWEETUP – FROM A PARTICIPANT TO A MARS TWEETUP ORGANISATOR AND A NEW FORMAT OF SPACE COMMUNICATION
Olivia Haider, Austrian Space Forum, Austria

IAC-12.E1.7.5
INTERNATIONAL CANSAT COMPETITION: CONSOLIDATING THE STUDENTS REAL PROJECTS
Borja Hidalgo Jiménez, LEEM, Spain

IAC-12.E1.7.6
TOUCH THE COMET! TESTING OF THE "ROSETTA'S COMET TOUCHDOWN" EDUCATIONAL KIT IN THE SZECHENYI ISTVAN HIGH SCHOOL, SOPRON, HUNGARY
Balint Soos, Hungary

IAC-12.E1.7.7
SPACE SCIENCE EDUCATION, OUTREACH ACTIVITIES AND THEIR IMPACTS IN NEPAL
Suresh Bhattarai, Nepal

IAC-12.E1.7.9
THE TREE COUNT: AN APPROACH OF GREEN INDEXING IN URBAN AREAS USING CITIZEN SCIENCE FOR EARTH OBSERVATION AND GIS
Aafaque Khan, Maulana Azad National Institute of Technology, India

IAC-12.E1.7.10
STEM OUTREACH THROUGH BALLOONING AND MOBILE DEVICES
Tyler Hughes, University of Alabama in Huntsville, United States
IAC-12.E1.7.11
THE ULISSE CONTRIBUTION TO EDUCATION AND OUTREACH
Luigi Carotenuto, Telespazio S.p.A., Italy

IAC-12.E1.7.12
CONSCIOUSNESS SURVEYS CONCERNING ASTEROID EXPLORER "HAYABUSA"
Toshiaki Takemae, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.E1.7.13
USE OF SOCIAL NETWORKS FOR OUTREACH, EDUCATION AND TRAINING ON SPACE APPLICATIONS: KNOW-HOW AND EXPERIENCE OF PLANETE SCIENCES
Gil DENIS, Planete Sciences, France

IAC-12.E1.7.14
VISUAL MOONBOUNCE: A NEW APPLICATION OF MOONBOUNCE TECHNOLOGY FOR COMMUNICATING SCIENCE THROUGH ART
Daniela de Paulis, Italy

IAC-12.E1.7.15
YOUTH INVOLVEMENT IN PUBLIC OUTREACH ON PLANETARY DEFENCE
TEJAL THAKORE, Space Generation Advisory Council (SGAC), United Kingdom

E1.8. Space Culture: Innovative Approaches for Public Engagement in Space

October 1 2012, 15:15 — TS18 (Sardegna, Palacongressi)

Chairs: *Frank Friedlaender, Lockheed Palo Alto Research Lab., United States; Roger Malina, Laboratoire d'Astrophysique de Marseille, France;*
Rapporteur: *Valerie Anne Casasanto, NASA Goddard/University of Maryland, Baltimore County (UMBC), United States;*

IAC-12.E1.8.1
PLAYBACK OF A DISTRIBUTED LUNAR EXPLORATION SIMULATION IN SECOND LIFE
Crystal Fordyce, University of Alabama in Huntsville, United States

IAC-12.E1.8.2
EDUCATING THE PUBLIC AND INSPIRING CHILDREN BY HIGHLIGHTING THE FUTURE OF SPACEFLIGHT FOR CITIZEN SPACE TRAVELLERS
Allison Rae Hannigan, United States

IAC-12.E1.8.4
2010 INTERNATIONAL HUMANS IN SPACE YOUTH ART COMPETITION
Jancy McPhee, USRA, United States

IAC-12.E1.8.5
HUBBLE HERITAGE: INSPIRATION THROUGH HUBBLE SPACE TELESCOPE IMAGERY
Carol Christian, STScI, United States

E1.9. Extended Mission

October 5 2012, 14:00 — TS18 (Sardegna, Palacongressi)

Chairs: *David Cook, University of Alabama in Huntsville, United States; James L. Stofan, National Aeronautics and Space Administration (NASA), United States;*
Rapporteur: *Chris Welch, International Space University (ISU), France;*

IAC-12.E1.9.1
50 YEARS OF SPACE EDUCATION AND OUTREACH IN FRANCE WITH PLANETE SCIENCES AND CNES
Christophe Scicluna, Planete Sciences, France

IAC-12.E1.9.2
INTEGRATING SPACE TECHNOLOGY INTO SOCIETY: SOCIETAL, POLITICAL, ECONOMIC, AND LOGISTICAL ROADBLOCKS FOR THE SPACE SECTOR
Cynthia Chen, Space Generation Advisory Council (SGAC), Australia

IAC-12.E1.9.3
PROPOSAL OF EDUCATION METHOD FOR SPACE SUSTAINABILITY: ITS PRACTICE AND IMPACTS
Ryusuke Konishi, Keio University, Japan

IAC-12.E1.9.4
OUTREACH THROUGH SOCIAL NETWORKING WITH HIGH-DELAY CONSTRAINTS DURING THE MARS 500 MISSION
Diego Urbina, European Space Agency (ESA), The Netherlands

IAC-12.E1.9.5
BEAUTIFUL EARTH: INSPIRING AND ENGAGING STUDENTS AND FAMILIES THROUGH MUSIC, ART, AND SCIENCE
Valerie Anne Casasanto, NASA Goddard/University of Maryland, Baltimore County (UMBC), United States

IAC-12.E1.9.7
THE UNIVERSITY OF ALBERTA – HIGH-ALTITUDE BALLOON (UA-HAB) PROJECT
Cory Hodgson, University of Alberta, Canada

IAC-12.E1.9.8
IRAN CANSAT COMPETITIONS, A NEW WAY TO MULTIDISCIPLINARY TEAMWORK
Sajjad Ghazanfarinia, Aerospace Research Institute, Iran

IAC-12.E1.9.9
REDEMPTION: A STUDENT EXPERIMENT PROPOSING A SOLUTION TO ACTIVE DEBRIS REMOVAL
Stefania Toschi, University of Bologna, Italy

E2. 42nd STUDENT CONFERENCE

Coordinator: *Stephen Brock, American Institute of Aeronautics and Astronautics (AIAA), United States; Marco Schmidt, University Wuerzburg, Germany;*

E2.1. Student Conference – Part 1

October 1 2012, 15:15 — TS03 (Altair, Hall 2)

Chairs: *Rachid Amekrane, Astrium GmbH, Germany; Benedicte Escudier, SUPAERO- Ecole Nationale Supérieure de l'Aéronautique et de l'Espace, France;*
Rapporteur: *Jeong-Won Lee, Korea Aerospace Research Institute, Korea, Republic of;*

IAC-12.E2.1.1
MISSION DESIGN FOR MARS EXPLORATION VEHICLE COMPOSED OF FLEXIBLE STRUCTURES
Kirin Tanishige, University of Tokyo, Japan

IAC-12.E2.1.2
NUMERICAL MODEL TO AID UNIVERSITIES IN DEVELOPING SPACE NATIONS WITH SOLID-FUEL ROCKET MOTOR DESIGN
Dayne Kemp, South African Space Association, South Africa

IAC-12.E2.1.3
ROLE OF MEMS COMPONENTS FOR UNIVERSITY SPONSORED NANO-SATELLITE APPLICATIONS
Sanket Dash, Manipal Institute of Technology, India

IAC-12.E2.1.4
MISSION AND SYSTEM DESIGN OF A 3U CUBESAT PASSIVE GTO TO LEO ORBIT TRANSFER
Charlotte Lücking, University of Strathclyde, United Kingdom

IAC-12.E2.1.5
MODELLING OF A SUPERSONIC ROCKET USING ARCHITECTURE ANALYSIS LAN
Geoffrey Duval, Université de Toulouse, ISAE, France

IAC-12.E2.1.6
FEASIBILITY STUDY OF AN ULTRA-LOW ALTITUDE HYPERSPECTRAL MICRO-SATELLITE
Alessandro Grasso, University of Bristol, United Kingdom

IAC-12.E2.1.7
ILMENITE DETECTION ON THE MOON BY REMOTE SENSING: AN INTEGRATION OF MULTISENSOR DATASETS OVER MARE AUSTRALE AND MARE INGENII REGIONS
Myriam Lemelin, University of Sherbrooke, Canada

IAC-12.E2.1.8
EXPERIMENTAL STUDY OF ACCELERATION PROCESSES IN HALL EFFECT THRUSTERS
Julien Vaudolon, CNRS, France

E2.2. Student Conference – Part 2

October 2 2012, 10:15 — TS19 (Vega, Palacongressi)

Chairs: *Marco Schmidt, University Wuerzburg, Germany; Jeong-Won Lee, Korea Aerospace Research Institute, Korea, Republic of;*
Rapporteur: *Benedicte Escudier, SUPAERO- Ecole Nationale Supérieure de l'Aéronautique et de l'Espace, France;*

IAC-12.E2.2.1
THE USE OF REMOTE SENSING IN ENVRIONMENTAL LEGAL PROCEEDINGS
Phillippa Blaber, International Space University (ISU)/University of South Australia, Australia

IAC-12.E2.2.2
METEOR ORBIT DETERMINATION USING DIFFERENT MODELS OF DYNAMICAL COMPUTATION
Julia Marín-Yaseli de la Parra, Universidad Complutense de Madrid, Spain

IAC-12.E2.2.3
FEMTO-SATELLITE SYSTEM ARCHITECTURE & MISSION DESIGN FOR LEO APPLICATIONS
Chetan Angadi, Delft University of Technology (TU Delft), The Netherlands

IAC-12.E2.2.4
AN EXPERIMENTAL STUDY OF POWER GENERATION SYSTEM USING HEAT OF CHEMICAL DECOMPOSITION OF NITROUS OXIDE
Yuichiro Ide, The Graduate Universty for Advanced Studies[SOKENDAI], Japan

IAC-12.E2.2.5
PRELIMINARY DESIGN OF A THIRD STAGE LIQUID PROPULSION SYSTEM FOR FUTURE VEGA EVOLUTION
Alessandro Migliaccio, Alten Sud Ouest, France

IAC-12.E2.2.6
HIL SIMULATION OF SPIN STABILIZED SPACECRAFT DYNAMICS BY TWO DEGREE OF FREEDOM GYROSCOPE SIMULATOR
Hagorly Hutasuhut, Institut Teknologi Bandung, Indonesia

IAC-12.E2.2.8
SOLID-BORNE SOUND MEASUREMENT FOR THE INDEPENDENT EVENT DETECTION
Andreas Leonhard Winhard, Institut für Raumfahrttechnik Universität der Bundeswehr München, Germany

E2.3. Student Team Competition

October 2 2012, 15:15 — TS19 (Vega, Palacongressi)

Chairs: *Stephen Brock, American Institute of Aeronautics and Astronautics (AIAA), United States; Naomi Mathers, Victorian Space Science Education Centre, Australia;*
Rapporteur: *Soyeon Yi, Korea Aerospace Research Institute, Korea, Republic of;*

IAC-12.E2.3.1
EXTRATERRESTRIAL OUTPOST (EXO): DESIGN AND IMPLEMENTATION OF A LONG-TERM SUSTAINABLE LUNAR HABITAT
Christine Fanchiang, University of Colorado, United States

IAC-12.E2.3.2
A MODULAR, EFFICIENT, LOW COST POWER SYSTEM FOR PICO-SATELLITE APPLICATIONS
Rohit Joshi, College of Engineering Pune, India

IAC-12.E2.3.3
ADVANCED TRANSFER OPTIONS AND INTEGRATED FLIGHT DYNAMICS ANALYSES FOR THE EUROPEAN STUDENT MOON ORBITER
Willem van der Weg, University of Strathclyde, United Kingdom

IAC-12.E2.3.4
SIMULATION AND VERIFICATION OF HYBRID PROPULSION OPERATING BEHAVIOR
Yuriy Metsker, Technical University of Munich, Germany

IAC-12.E2.3.5
DEVELOPMENT OF THE VARIABLE THRUST HYBRID SOUNDING ROCKET: BEIHANG-3
Peng Zeng, Beijing University of Aeronautics and Astronautics, China

IAC-12.E2.3.6
UNIVERSITY OF COLORADO BOULDER HYSOR PROJECT: 2012 REPORT
Matthew Cannella, University of Colorado, United States

IAC-12.E2.3.7
STRATHSAT-R: DEPLOYING INFLATABLE CUBESAT STRUCTURES IN MICRO GRAVITY
Thomas Sinn, University of Strathclyde/Advanced Space Concept Laboratory, United Kingdom

IAC-12.E2.3.8
A LOW-COST EARTH-OBSERVATION CAMERA WITH HIGH IMAGE PROCESSING CAPABILITY USING COTS TECHNOLOGIES
Takehiko Kakizakai, Tokyo University of Science, Japan

IAC-12.E2.3.9
STUDENTS CAN SIGNIFICANTLY CONTRIBUTE IN MAPPING AND MONITORING OF WETLANDS IN THEIR LOCALITY BY USING REMOTE SENSING DATA AND GIS TOOLS
Aafaque Khan, Maulana Azad National Institute of Technology, India

IAC-12.E2.3.10
DELTA-SAT: THE CONCURRENT PRE-PHASE A DESIGN OF A THERMOSPHERIC EXPLORATION MICROSATELLITE
Dunlop Kathryn, Delft University of Technology (TU Delft), The Netherlands

E3. 25th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS

Coordinator: *Sergio Camacho, CRECTEALC - Regional Centre for Space Science and Technology Education for Latin American and The Caribbean, Mexico; Max Grimard, EADS Astrium, France;*

E3.1. National and International Space Policies and Programmes for Socio-economic Development

October 1 2012, 15:15 — TS08 (Rigel, Hall 3)

Chairs: *Sergio Camacho, CRECTEALC - Regional Centre for Space Science and Technology Education for Latin American and The Caribbean, Mexico; Jacques Masson, European Space Agency (ESA), France;*
Rapporteur: *Nicolas Peter, European Space Agency (ESA), France;*

IAC-12.E3.1.2
SPACE FOR DEVELOPMENT: A POLICY PERSPECTIVE
Stefano Scarda, European Commission, Belgium

IAC-12.E3.1.3
SUSTAINABLE SPACE INFRASTRUCTURE: INDUSTRIAL POLICY AND FOREIGN DIRECT INVESTMENT
Vasilis Zervos, International Space University (ISU), France

IAC-12.E3.1.4
ASSISTING DEVELOPMENT ACROSS THE AFRICAN CONTINENT USING SPACE APPLICATIONS
Jeffrey R. Osborne, International Space University (ISU), France

IAC-12.E3.1.6
ITALIAN SPACE SMES AND ASI POLICY TO INCREASE THEIR GROWTH AND DEVELOPMWENT
Silvia Ciccarelli, AIPAS, Italy

IAC-12.E3.1.7
INTERNATIONAL CODE OF CONDUCT FOR OUTER SPACE ACTIVITIES VIS A VIS OTHER SPACE SECURITY INITIATIVES
Agnieszka Lukaszczyk, Secure World Foundation, Belgium

IAC-12.E3.1.8
AUSTRALIA: RECENT DEVELOPMENTS IN SPACE SITUATIONAL AWARENESS
Brett Biddington, Australia

IAC-12.E3.1.9
CRAFTING AN EFFECTIVE COMMUNICATIONS PLAN FOR AN INTERNATIONAL RESPONSE TO A THREATENING NEAR EARTH OBJECT
Ray A. Williamson, Secure World Foundation, United States

IAC-12.E3.1.10
THE RELATIONSHIP BETWEEN THE OUTER SPACE TREATY AND THE RADIO REGULATIONS
Dan Hu, CAST, China

IAC-12.E3.1.11
OUTCOME FROM THE FIRST INTERNATIONAL SYMPOSIUM ON SUSTAINABLE SPACE DEVELOPMENT AND UTILIZATION FOR HUMANKIND IN JAPAN
Susumu Yoshitomi, Japan Space Forum, Japan

IAC-12.E3.1.12
REVIEW AND RECOMMENDATIONS OF BEST PRACTICES FOR SPACE REGULATORY REGIMES
Kate Becker, Space Policy Institute, George Washington University, United States

E3.2. International Cooperation: Goals, Constraints and Means

October 2 2012, 15:15 — TS08 (Rigel, Hall 3)

Chairs: *Max Grimard, EADS Astrium, France; Bernhard Schmidt-Tedd, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*
Rapporteur: *Ray Williamson, Secure World Foundation, United States;*

IAC-12.E3.2.1
DATA POLICIES, CAPACITY BUILDING, AND DISASTER RESPONSE
Ray A. Williamson, Secure World Foundation, United States

IAC-12.E3.2.2
LEVERAGING GEONETCAST FOR DISASTER MANAGEMENT APPLICATIONS: RECENT INITIATIVES WITH THE INTERNATIONAL CHARTER "SPACE AND MAJOR DISASTERS" AND THE CENTRAL AMERICAN FLASH FLOOD GUIDANCE SYSTEM
Jacob Sutherlun, National Oceanic and Atmospheric Administration (NOAA), United States

IAC-12.E3.2.3
CONTRIBUTIONS OF SERVIR IN PROMOTING THE USE OF SPACE DATA IN CLIMATE CHANGE AND DISASTER MANAGEMENT
Africa Flores Cordova, University of Alabama in Huntsville, United States

IAC-12.E3.2.4
PROTOTYPE SERVIR ANALYSIS AND PRODUCT TOOLBOX (APT):DEVELOPMENT OF A DATA ACCESS PLATFORM IN ARCGIS FOR RAPID AND AUTOMATED REMOTE SENSING PRODUCT DISSEMINATION.
James Brenton, University of Alabama in Huntsville, United States

IAC-12.E3.2.5
LESSONS LEARNED FROM MARITIME DOMAIN AWARENESS FOR INTERNATIONAL SSA DATA SHARING
Kate Becker, Space Policy Institute, George Washington University, United States

IAC-12.E3.2.6
SPACE SECURITY AND GLOBAL CONCERN (INDIA PERSPECTIVE)
Rushi Ghadawala, Aryavarta Space Organization, India

IAC-12.E3.2.7
INTEGRATING NATIONAL INTERESTS IN SPACE
Scott Pace, Space Policy Institute, George Washington University, United States

IAC-12.E3.2.8
THE UNITED NATIONS HUMAN SPACE TECHNOLOGY INITIATIVE (HSTI) ACTIVITY STATUS IN 2012
Mika Ochiai, United Nations Office for Outer Space Affairs, Austria

IAC-12.E3.2.9
THE UNITED STATES AND SPACE EXPLORATION: DIRECTION OR DRIFT?
John Logsdon, Space Policy Institute, George Washington University, United States

IAC-12.E3.2.10
THE GLOBAL IMPACT OF ITAR ON THE FOR-PROFIT AND NON-PROFIT SPACE COMMUNITIES
Whitney Lohmeyer, MIT, United States

E3.3. Space Economy: Valuing the Uses

October 3 2012, 10:15 — TS08 (Rigel, Hall 3)

Chairs: *Thierry LE GOFF, EADS Astrium, France; Henry Hertzfeld, Space Policy Institute, George Washington University, United States;*
Rapporteur: *Bertrand de Hauteclocque, Bureau d'Economie Théorique et Appliquée. Strasbourg University, France;*

IAC-12.E3.3.1
NEW VISION FOR THE VALUE OF SPACE USE
Pierre PARROT, EADS Astrium, France

IAC-12.E3.3.2
A COMMENT ON ECONOMIC THEORY, LAW, AND POLICY IN THE SPACE ECONOMY
Henry Hertzfeld, Space Policy Institute, George Washington University, United States

IAC-12.E3.3.4
SPACE ACTIVITIES AND RETURNS ON INVESTMENTS: CASE STUDIES AND LESSONS LEARNED
Claire Jolly, Organisation for Economic Co-operation and Development (OECD), France

IAC-12.E3.3.5
PRIVATE AND SOCIAL RETURNS TO SPACE INVESTMENTS:ARE WE ABLE TO MEASURE THEM? AN ATTEMPT IN THE ITALIAN CASE
Giancarlo Graziola, University of Bergamo, Italy

IAC-12.E3.3.6
PREVISION AND PROSPECTIVE TO FORECAST IN THE SPACE ECONOMY. APPLICATION TO THE EUROPEAN SPACE SECTOR.
Bertrand de Hauteclocque, Bureau d'Economie Théorique et Appliquée. Strasbourg University, France

IAC-12.E3.3.7
SPACE-BASED SERVICES AND INNOVATION
Matteo Ainardi, EADS Astrium Services, France

IAC-12.E3.3.8
A COMPREHENSIVE ANALYSIS OF PREVIOUS RESULTS ON POLICY PERSPECTIVES AND THE SOCIO-ECONOMIC BENEFITS OF GMES
Christina Giannopapa, European Space Policy Institute (ESPI), Austria

IAC-12.E3.3.9
FINANCIAL, ECONOMIC AND POLICY ISSUES AND SOLUTIONS TO BE ADDRESSED IN THE COMMERCIALISATION AND PRIVATISATION OF DIFFERENT AREAS OF THE SPACE INDUSTRY GLOBALLY.
Carla Sharpe, Foundation for Space Development South Africa, South Africa

IAC-12.E3.3.10
DEFINITION AND ANALYSIS OF THE COMMERCIAL SPACEFLIGHT INDUSTRY, 2006-2011
Paul Guthrie, The Tauri Group, United States

IAC-12.E3.3.11
SPACE ECONOMY IN A TIME OF GLOBAL CRISIS: 2011-2012
Spyros Pagkratis, European Space Policy Institute (ESPI), Austria

IAC-12.E3.3.12
NETWORKS AND GROWTH OF SPACE INDUSTRIAL CAPABILITIES
Vasilis Zervos, International Space University (ISU), France

E3.4. National Policies and Regional Cooperation

October 3 2012, 15:15 — TS08 (Rigel, Hall 3)

Chairs: *Werner R. Balogh, United Nations Office for Outer Space Affairs, Austria; Ciro Arevalo Yepes, ;*
Rapporteur: *Ciro Arevalo Yepes, ;*

IAC-12.E3.4.1
AFRICAN PARTICIPATION IN HUMAN SPACEFLIGHT ACTIVITIES
Giuseppe Reibaldi, International Academy of Astronautics (IAA), The Netherlands

IAC-12.E3.4.2
CHALLENGES OF ESTABLISHING NATIONAL SPACE PROGRAMMES IN DEVELOPING ECONOMIES: CASE STUDY OF KENYA
Andrew Nyawade, Ministry of State for Defence - Kenya, Kenya

IAC-12.E3.4.3
THE COMPLEXITY OF THE EUROPEAN SPACE GOVERNANCE - DOES IT WORK?
Natassa Antoniou, Secure World Foundation, Belgium

IAC-12.E3.4.4
GERMANY'S ROLE WITHIN THE EU SPACE POLICY: ENCOURAGING NATIONAL VERSUS EUROPEAN SPACE INDUSTRY APPLICATIONS
Luise Weber-Steinhaus, Astrium Space Transportation, Germany

IAC-12.E3.4.5
POLISH SPACE ACTIVITIES IN THE EVE OF ESA ACCESSION
Krzysztof Kanawka, kosmonauta.net, Poland

IAC-12.E3.4.6
DIFFERING CONCEPTIONS OF SPACE AND ITS CONSEQUENT IMPACT IN KOREAN SPACE POLICY
Seungmi Chung, KAIST, Korea, Republic of

IAC-12.E3.4.8
NEW NATIONAL SPACE AGENCIES IN SOUTH AMERICA: NEW OPPORTUNITIES FOR COLLABORATION?
Sylvia Ospina, S. Ospina & Associates - Consultants, United States

IAC-12.E3.4.9
THE CREATION OF A SPACE POLICY IN COLOMBIA, A CHAOTIC HISTORY
Camilo Guzman, UNIVERSIDAD SERGIO ARBOLEDA, Colombia

IAC-12.E3.4.10
THE SPACE POTENTIAL OF UKRAINE: IN THE INTERESTS OF SOCIETY AND INNOVATION
Yevgeniy Zakharchuk, Western Scientific Center of National Academy of Sciences of Ukraine, Ukraine

IAC-12.E3.4.11
DEVELOPMENT AND IMPLEMENTATION OF THE EUROPEAN SPACE POLICY: C-SPACE PROJECT RESULTS
Bianca Detsis, France

IAC-12.E3.4.12
THE SECOND KOREA NATIONAL SPACE DEVELOPMENT PROMOTION PLAN
Nammi Choe, Korea Aerospace Research Institute, Korea, Republic of

IAC-12.E3.4.13
COMPARISON OF THE SPACE GOVERNANCE IN TWO FEDERAL COUNTRIES: BELGIUM AND GERMANY. HIGHLIGHTING THE RELEVANCE OF THE REGIONS FOR THE FUTURE OF EUROPEAN SPACE ACTIVITIES.
Maarten Adriaensen, European Space Agency (ESA), Belgium

E4. 46th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM

Coordinator: *Christophe Rothmund, Snecma, France; Philippe Jung, Association Aéronautique & Astronautique de France (AAAF), France; Ake Ingemar Skoog, Germany; Niklas Reinke, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*

E4.1. Memoirs and Organisational Histories

October 1 2012, 15:15 — TS10 (Sirius, Hall 3)

Chairs: *Marsha Freeman, 21st Century Science & Technology, United States; Hervé Moulin, Institut Français d'Histoire de l'Espace, France;*
Rapporteur: *Niklas Reinke, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany; Theo Pirard, Space Information Center, Belgium;*

IAC-12.E4.1.1
WOMEN IN THE SPACE EXPLORATION HISTORY
Yu Cao, China

IAC-12.E4.1.2
ALEXANDRE ANANOFF (1910-1992): 30 YEARS TO PROMOTE ASTRONAUTICS BEFORE SPUTNIK
Philippe Varnoteaux, Société Astronomique de France (SAF), France

IAC-12.E4.1.3
MARCEL KLAJN, DREAMER OF SPACE, BUILDER OF SATELLITES: THE UNTOLD STORY OF ISRAEL'S SPACE PROGRAMS PIONEER
Tal Inbar, Fisher Institute for Air and Space Strategic Studies, Israel

IAC-12.E4.1.4
THE PEDRO PAULET'S LIQUID PROPELLANT ROCKET ENGINE INVENTION: FIRST STEP IN THE SPACE ROCKETRY
Alvaro Mejía, Institute of Aerospace Historical Studies, Peru

IAC-12.E4.1.5
BRAZILIAN ASTRONAUTICAL HISTORY: FROM SANTOS DUMONT TO THE PRESENT
Ana Paula Marins Chiaradia, UNESP/FEG, Brazil

IAC-12.E4.1.7
FRENCH SPACE POLICY: THE FORMATIVE YEARS, 1945-1965
Hervé Moulin, Institut Français d'Histoire de l'Espace, France

IAC-12.E4.1.8
V.I.VERNADSKY - A PHILOSOPHY FOR THE SPACE AGE
William Cuthbert Jones, Executive Intelligence Review News Service, United States

IAC-12.E4.1.9
CREATION AND DEVELOPMENT OF YUZHNOYE SDO'S SCIENTIFIC BALLISTICS SCHOOL
A.V. Novikov, Yuzhnoye State Design Office, Ukraine

E4.2. Scientific and Technical Histories

October 4 2012, 10:15 — TS10 (Sirius, Hall 3)

Chairs: *Christophe Rothmund, Snecma, France;*
Rapporteur: *William Jones, United States;*

IAC-12.E4.2.2
LOUIS DAMBLANC - MULTISTAGE ROCKET PIONEER
Philippe Jung, Association Aéronautique & Astronautique de France (AAAF), France

IAC-12.E4.2.3
CAN A PILE OF SCRAP UNMASK A NEW HIGH TECHNOLOGY? THE A4/V2 NO V89 BÄCKEBO-TORPEDEN
Ake Ingemar Skoog, Germany

IAC-12.E4.2.4
HISTORY OF BRITISH ROCKET ASSISTED TAKE OFF UNITS
Andrew Chatwin, The British Interplanetary Society, United Kingdom

IAC-12.E4.2.5
THE CORONA SATELLITE PROGRAM AND THE BEGINNINGS OF RECONNAISSANCE SATELLITES
Amy Parlett, University of Alabama in Huntsville, United States

IAC-12.E4.2.6
THE FIRST SOVIET LUNAR FLIGHTS
Vyacheslav V. Ivashkin, Keldysh Institute of Applied Mathematics, RAS, Russia

IAC-12.E4.2.7
THE VALOIS ENGINE AND THE DIAMANT-B LAUNCH VEHICLE -- FIRST STAGE PROPULSION SYSTEM
Christophe Rothmund, Snecma, France

IAC-12.E4.2.8
THE LUNAR ROVING VEHICLE – A LEGACY OF LUNAR SURFACE EXPLORATION
John Alcorn, University of Alabama in Huntsville, United States

IAC-12.E4.2.9
THE FIRST PRACTICAL ATTEMPT TO CREATE AN 'AEROSPIKE'-CONCEPT ROCKET ENGINE IN THE FSU
Oleg A. Sokolov, The British Interplanetary Society, United Kingdom

IAC-12.E4.2.10
TECHNIQUES TO DIGITALLY PRESERVE THE HISTORICAL FILM OF A SPACE AGENCY
Mark Becnel, University of Alabama in Huntsville, United States

E4.3A. History of Italian Contribution to Astronautics

October 4 2012, 15:15 — TS10 (Sirius, Hall 3)

Chairs: *Otfrid Liepack, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States;*
Rapporteur: *Philippe Cosyn, Belgium;*

IAC-12.E4.3A.1
PROFESSORE BROGLIO AND THE SAN MARCO PROGRAM
Luigi Bussolino, Bussolino and Associates, Italy

IAC-12.E4.3A.2
SYMPOSIUM KEYNOTE: THE DEVELOPMENT AND OPERATIONAL LIFE OF SPACELAB - A BRIEF STORY OF THE ITALIAN CONTRIBUTION TO AN INTERNATIONAL SUCCESS
Ernesto Vallerani, Space Exploration and Develoment Systems Master, Italy

IAC-12.E4.3A.3
TSS-1, TETHERED SATELLITE DEPLOYED FROM THE SPACE SHUTTLE
Luigi Bussolino, Bussolino and Associates, Italy

IAC-12.E4.3A.4
GIUSEPPE COLOMBO AND SPACE ACTIVITIES IN HUNTSVILLE, ALABAMA
Charles Lundquist, United States

E4.3B. Tribute to Wernher von Braun, born 100 years ago

October 4 2012, 15:15 — TS10 (Sirius, Hall 3)

Chairs: *Otfrid Liepack, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States;*
Rapporteur: *Philippe Cosyn, Belgium;*

IAC-12.E4.3B.1
WALTER THIEL - SHORT LIFE OF A ROCKET SCIENTIST
Karen Thiel, Germany

IAC-12.E4.3B.2
WILLY LEY: ROCKET SCIENTIST AND BOOK COLLECTOR
Anne Coleman, University of Alabama in Huntsville, United States

IAC-12.E4.3B.3
THE DR. WERNHER VON BRAUN VISION
Brittani Searcy, University of Alabama in Huntsville, United States

IAC-12.E4.3B.5
KONRAD DANNENBERG: AN AMBASSADOR FOR SPACE
William Helms, Univeristy of Alabama in Huntsville, United States

IAC-12.E4.3B.6
THE REDSTONE AND JUPITER ROCKETS - PREDECESSORS TO THE SUCCESSFUL AMERICAN SPACE PROGRAM
Angela Yi, University of Alabama in Huntsville, United States

E5. 23rd IAA SYMPOSIUM ON SPACE ACTIVITY AND SOCIETY

Coordinator: *Geoffrey Languedoc, Canadian Aeronautics & Space Institute (CASI), Canada; Olga Bannova, University of Houston, United States;*

E5.1. Space Technologies - Earth Applications

October 3 2012, 10:15 — TS17 (Corsica, Palacongressi)

Chairs: *Nona Minnifield Cheeks, National Aeronautics and Space Administration (NASA)/Goddard Space Flight Center, United States; Kevin Cook, Space Foundation, United States;*
Rapporteur: *A. Scott Howe, National Aeronautics and Space Administration (NASA)/Jet Propulsion Laboratory, United States;*

IAC-12.E5.1.1
MEASURING IMPACT: LESSIONS FROM THE TECHNOLOGY TRANSFER IN THE ACADEMIC SECTOR
Phyl Speser, Goddard SFC, United States

IAC-12.E5.1.2
SUCCESS FACTORS FOR TRANSFERRING SPACE TECHNOLOGIES TO SOCIETY
Chiara Verbano, University of Padova, Italy

IAC-12.E5.1.3
THE BENEFITS BROUGHT BY SPACE - GENERAL PUBLIC VERSUS SPACE AGENCIES PERSPECTIVES
Bianca Detsis, France

IAC-12.E5.1.4
BRIDGING THE GAP: USE OF SPACEFLIGHT TECHNOLOGIES FOR EARTH-BASED PROBLEMS
Alaina Brinley, National Aeronautics and Space Administration (NASA)/Johnson Space Center, United States

IAC-12.E5.1.5
TECHNOLOGY TRANSFER AS A MEANS FOR CAPABILITY BUILDING IN DEVELOPING COUNTRY SPACE PROGRAMS
Danielle Wood, Massachusetts Institute of Technology (MIT), United States

IAC-12.E5.1.6
THE INFLUENCE OF AEROSPACE TECHNOLOGY DEVELOPMENT ON SOCIETY
Shan Wenjie, China Academy of Launch Vehicle Technology, China

IAC-12.E5.1.7
THE AEROSPACE INDUSTRIAL AND RESEARCH DEVELOPMENT IMPACT ON THE SOCIETY OF COSTA RICA
Magaly Sandoval, Central American Association of Aeronautics and Space (ACAE), Costa Rica

IAC-12.E5.1.8
IMPACTS OF COLLABORATIONS IN SPACE SCIENCE AND TECHNOLOGY R&D IN CANADA
Annie Martin, Ecole Polytechnique de Montreal, Canada

IAC-12.E5.1.9
APPLICATION OF DISTRIBUTED CONTROL SYSTEM SUBJECT TO RESOURCE LIMITATION FOR HEATER CONTROL EQUIPMENT TO PUBLIC INFRASTRUCTURE SYSTEM
Sho Ohtani, The University of TOKYO, Graduate school, Japan

IAC-12.E5.1.10
THE IMPACT OF SPACE SOLAR ENERGY ON SOCIETY
Yean Joo Chong, National University of Singapore, Rep. Of Singapore

IAC-12.E5.1.11
THE APPLICATION OF SATELLITE NAVIGATION AND COMMUNICATIONS SYSTEMS IN REMOTE EXPERIENTIAL SHOPPING
Feng Dong, Shanghai Aerospace Institute, China

IAC-12.E5.1.12
VETTING SPACE BASED TECHNOLOGY SOCIETAL IMPACTS
Nona Minnifield Cheeks, National Aeronautics and Space Administration (NASA)/Goddard Space Flight Center, United States

IAC-12.E5.1.13
GNSS AND SBAS SYSTEM OF SYSTEMS: CONCIDERATIONS FOR APPLICATIONS IN THE ARCTIC
Tale Sundlisæter, Norwegian University of Science and Technology, Norway

IAC-12.E5.1.14
THE IGMASS PROJECT – NEW APPROACH TO NATURAL AND MAN-MADE DISASTER MANAGEMENT ISSUES
Sergey Cherkas, Roscosmos, Russia

IAC-12.E5.1.15
SPACE SCIENCE AND SOCIETY – MOTIVATING THE MASSES TO DONATE IDLE COMPUTING TIME AT HOME FOR NUMERICAL AEROSPACE RESEARCH IN DISTRIBUTED COMPUTING AND CITIZEN SCIENCE
Andreas Hornig, Germany

IAC-12.E5.1.16
APPARATUS FOR PSYCHOLOGICAL ASSESSMENT – SPACE AND GROUND IMPLEMENTATION
Anelia Popandreeva, Bulgarian Academy of Sciences, Bulgaria

E5.2. Moon, Mars and Beyond: Analogues, Habitation and Spin-Offs

October 3 2012, 15:15 — TS17 (Corsica, Palacongressi)

Chairs: *Nona Minnifield Cheeks, National Aeronautics and Space Administration (NASA)/Goddard Space Flight Center, United States; Olga Bannova, University of Houston, United States;*
Rapporteur: *Anna Barbara Imhof, Liquifer Systems Group (LSG), Austria;*

IAC-12.E5.2.1
APOGEIOS, A SPACE CITY FOR 10.000 INHABITANTS
Olivier Boisard, Consulting engineer OB-Conseil, and professor at Ecole Centrale de Lille, France

IAC-12.E5.2.2
A MULTIPURPOSE MARS VEHICLE FOR PAYLOAD DELIVERY AND SURFACE OPERATIONS
Thomas Hockenberry, Sasakawa International Center for Space Architecture, United States

IAC-12.E5.2.3
LUNAR BAROQUE: AN ARCHITECTURAL STYLE
Ondrej Doule, Space Innovations, Czech Republic

IAC-12.E5.2.4
THE HUMAN SENSES IN LUNAR HABITAT ARCHITECTURE
Anna Barbara Imhof, Liquifer Systems Group (LSG), Austria

IAC-12.E5.2.5
DESIGNING TOMORROW'S LUNAR HABITAT WITH TODAY'S TECHNOLOGY
Thomas Hockenberry, Sasakawa International Center for Space Architecture, United States

IAC-12.E5.2.6
THE EUROPEAN MARS ANALOG STATION FOR ADVANCED TECHNOLOGY INTEGRATION (ERAS)
Yuval Brodsky, European Space Agency (ESA), The Netherlands

IAC-12.E5.2.7
HUMAN FACTORS STUDIES IN MARS ANALOG MISSION OF ILEWG EUROMOONMARS : TWO ROTATIONS
Balwant Rai, The Netherlands

IAC-12.E5.2.8
OPTIMIZE USE OF SPACE RESEARCH AND TECHNOLOGY FOR MEDICAL DEVICES
Nona Minnifield Cheeks, National Aeronautics and Space Administration (NASA)/Goddard Space Flight Center, United States

IAC-12.E5.2.9
USING REAL OPTIONS TO SEE THE EFFECT ON SOCIAL NEEDS OF SPACE VISUALIZATION TOOLS
Phyl Speser, Goddard SFC, United States

IAC-12.E5.2.10
SOCIO-ECONOMIC AND CULTURAL ASPECTS OF THE EQUATORIAL SPACE-VEHICLE LAUNCHING SITE INFRASTRUCTURE CREATION EXEMPLIFIED BY AIR LAUNCH PROJECT REALIZATION ON THE BIAK ISLAND (PAPUA PROVINCE, INDONESIA)
Dina Pogosyan, Air Launch Aerospace Corporation, Russia

IAC-12.E5.2.11
SOUNDING BALLOONS AS A SOCIAL EFFECTIVE VISUALIZATION TOOL
Daniel Sors Raurell, LEEM-UPM, Spain

IAC-12.E5.2.12
SKYLAB VS 2001'S DISCOVERY: INTERFACES IN HABITATION DESIGN DEVELOPMENT
Regina Peldszus, Kingston University, Germany

E5.3. Human Habitation Beyond Low Earth Orbit

October 4 2012, 10:15 — TS17 (Corsica, Palacongressi)

Chairs: *Brent Sherwood, Caltech/JPL, United States; Olga Bannova, University of Houston, United States;*
Rapporteur: *Anna Barbara Imhof, Liquifer Systems Group (LSG), Austria;*

IAC-12.E5.3.1
FROM MISSION ARCHITECTURE TO ELEMENT DESIGN: DECISION INTERDEPENDENCE AND CONNECTIVITY
Olga Bannova, University of Houston, United States

IAC-12.E5.3.2
FOSTERING THE ENDEAVOR: ARCHITECTURE EDUCATION FOR PLANETARY EXPLORATION
Kursad Ozdemir, Yeditepe University, Turkey

IAC-12.E5.3.4
ADVANCE MANUFACTURED SPACE MICRO HABITAT: TOWARDS AFFORDABLE, ADAPTABLE AND SUSTAINABLE SPACE HARDWARE
Raul Polit-Casillas, XAR Sidereal / JPL Visiting Student, United States

IAC-12.E5.3.5
STRUCTURAL RADIATION PROTECTION OPTIMIZATION FOR SPACE HABITATS
Aliakbar Ebrahimi, International Space University (ISU), France

IAC-12.E5.3.6
STOWAGE : WHERE TO FIND AND PUT THINGS IN SPACE – A DESIGN EVALUATION FROM SKYLAB TO THE ISS
Sandra Haeuplik-Meusburger, Vienna University of Technology, Austria

IAC-12.E5.3.7
RE-CONFIGURABLE BUILDING SYSTEM FOR SPACECRAFT INTERIORS, EQUIPMENT SUPPORT, AND HUMAN ACCOMMODATIONS
Stacy Henze, University of Houston, United States

IAC-12.E5.3.8
SLEEPING IN ZERO-G: HOW THE DESIGN OF A SLEEPING BAG CAN SUPPORT COUNTERMEASURING FATIGUE
Anna Barbara Imhof, Liquifer Systems Group (LSG), Austria

IAC-12.E5.3.9
SELF-SUFFICIENT AND SUSTAINABLE TECHNOLOGY FOR HABITAT SYSTEMS FROM SPACE TO EARTH
Irene Lia Schlacht, Technische Universität Berlin, Germany

IAC-12.E5.3.10
THE ROAD LESS TRAVELLED: GREENHOUSES AND ITS HUMANIZING SYNERGIES
Sandra Haeuplik-Meusburger, Vienna University of Technology, Austria

IAC-12.E5.3.11
ADVANCE SPACE ARCHITECTURAL DESIGN: REQUIREMENTS, CONSTRAINS AND CONSEQUENCES TO APPLY ADVANCE DIGITAL ROBOTIC MANUFACTURING AND BUILDING TECHNIQUES
Raul Polit-Casillas, XAR Sidereal / JPL Visiting Student, United States

E5.4. Space as an Artistic Medium

October 4 2012, 15:15 — TS17 (Corsica, Palacongressi)

Chairs: *Richard Clar, Art Technologies, France; Tim Otto Roth, Germany;*
Rapporteur: *Regina Peldszus, Kingston University, Germany;*

IAC-12.E5.4.1
SYMPOSIUM KEYNOTE: THE CONVERGENCE OF ART, SCIENCE AND TECHNOLOGY IN SPACE EXPLORATION
Yvonne Clearwater, National Aeronautics and Space Administration (NASA), United States

IAC-12.E5.4.2
ATLASCOELESTISZEROG
Andreas Vogler, Architecture and Vision, Germany

IAC-12.E5.4.5
INNOVATIVE MUSICAL INSTRUMENTS DESIGNED FOR MICROGRAVITY: COSMICAL SEEDS
Ayako Ono, Tohoku University Graduate School of Medicine, Japan

IAC-12.E5.4.6
TIM OTTO ROTH AND DR. ANTONELLA NOTA: BEYOND 'PRETTY' PICTURES – "FROM THE DISTANT PAST" PRESENTS THE COLOUR HEARTBEAT OF THE PRIMORDIAL UNIVERSE ENCODED IN HUBBLE SPECTRA AS PUBLIC LIGHT ART
Tim Otto Roth, Germany

IAC-12.E5.4.7
NEW CHALLENGE OF LIBERAL ARTS ON BOARD "KIBO"/ISS
Hisano Kamimura, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.E5.4.8
OPTICKS, SPACE TRAVEL AND VISUAL MOONBOUNCE
Daniela de Paulis, Italy

IAC-12.E5.4.9
THE ART AND SCIENCE OF INTERSTELLAR MESSAGE COMPOSITION
Douglas Vakoch, SETI Institute and California Institute of Integral Studies, United States

IAC-12.E5.4.10
THE ONE WAY TICKET
Joseph Popper, United Kingdom

E5.5A. Part 1: The Role of Art in Space Activities

October 5 2012, 09:00 — TS17 (Corsica, Palacongressi)

Chairs: *Richard Clar, Art Technologies, France; Tim Otto Roth, Germany;*
Rapporteur: *Regina Peldszus, Kingston University, Germany;*

IAC-12.E5.5A.1
ON ARTWORKS AND SPACE TRAVELLERS
Kirsten Johannsen, Zürcher Hochschule der Künste, Switzerland, Germany

IAC-12.E5.5A.2
FROM BEYOND THE HORIZON -- ART PROJECTS BY CHRISTIAN WALDVOGEL
Christian Waldvogel, Switzerland

IAC-12.E5.5A.3
A FIELD STUDY ON THE ROLE OF ART IN SPACE EXPLORATION
Irene Lia Schlacht, Technische Universität Berlin, Germany

IAC-12.E5.5A.4
ARTISTIC PRACTICE AS A MEANS FOR RECOGNISING THE VALUE OF AUTONOMOUS SPACEFARING ACTIVITIES
Joanna Griffin, University of Plymouth, United Kingdom

IAC-12.E5.5A.5
CULTURAL SPACE PROGRAM
Miha Tursic, Slovenia

IAC-12.E5.5A.6
TOWARDS A COOPERATION BETWEEN THE ARTS, SPACE SCIENCE RESEARCH AND THE EUROPEAN SPACE AGENCY- PRELIMINARY FINDINGS OF THE ESA TOPICAL TEAM ARTS AND SCIENCES (ETTAS)
Anna Barbara Imhof, Liquifer Systems Group (LSG), Austria

IAC-12.E5.5A.7
THE SCIENTIFIC AND TECHNOLOGICAL ARTISTRY OF NASA - THE ROLE OF SPACE ART IN THE DEVELOPMENT OF THE UNITED STATES' SPACE PROGRAM.
Tamara Cottam, University of Alabama in Huntsville, United States

IAC-12.E5.5A.8
COSMIC ART: PAST, PRESENT, FUTURE
Vanja Malloy, Courtauld Institute of Art, United Kingdom

E5.5B. Part 2: Space Assets and Disaster Management

October 5 2012, 11:00 — TS17 (Corsica, Palacongressi)

Chairs: *Peter Swan, SouthWest Analytic Network, United States; Geoffrey Languedoc, Canadian Aeronautics & Space Institute (CASI), Canada;*
Rapporteur: *Natasha Jackson, Faculty of Engineering, Carleton University, Canada;*

IAC-12.E5.5B.1
CU3SAT: A CANADIAN STUDENT MISSION FOR MITIGATING GEOMAGNETIC STORM DISRUPTION
Matthew Cross, Faculty of Engineering, Carleton University, Canada

IAC-12.E5.5B.2
EVALUATION OF SPACE-BASED SUPPORT THROUGH SERVIR DURING AND AFTER THE 2009 FLOODS AND LANDSLIDES IN EL SALVADOR
Eric Anderson, University of Alabama in Huntsville, United States

IAC-12.E5.5B.3
THE ROLE OF SPACE SYSTEMS BEFORE, DURING, AND AFTER THE APRIL 2011 SOUTHEASTERN UNITED STATES MULTIPLE TORNADO OUTBREAK
Emma Fry, University of Alabama in Huntsville, United States

E6. BUSINESS INNOVATION SYMPOSIUM

Coordinator: *Ken Davidian, Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST), United States;*

E6.1. Entrepreneurship and Investment for Innovations in Commercial Space Access Activities

October 3 2012, 10:15 — TS06 (Canopus, Hall 3)

Chairs: *Ken Davidian, Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST), United States; Joerg Kreisel, JOERG KREISEL International Consultant (JKIC), Germany;*
Rapporteur: *Daniel Faber, Aerospace Concepts Pty Ltd, Australia;*

IAC-12.E6.1.1
LOW COST SOUNDING BALLOONS: COMMERCIAL AND ACADEMIC APPLICATIONS
Tariq Al-Marahleh Montes, LEEM, Spain

IAC-12.E6.1.2
NASA SUBORBITAL RESEARCH PARTNER MARKET ANALYSIS USING INNO360
Paul Guthrie, The Tauri Group, United States

IAC-12.E6.1.3
RESEARCH ROADMAP FOR COMMERCIAL SPACE TRANSPORTATION
Jonah Zimmerman, Stanford University, United States

IAC-12.E6.1.4
WINNING PAPER OF THE "SPACE IS BUSINESS" PAPER WRITING COMPETITION
Ken Davidian, Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST), United States

IAC-12.E6.1.5
TEN-YEAR FORECAST FOR LAUNCHES AND MARKETS FOR REUSABLE SUBORBITAL VEHICLES
Paul Guthrie, The Tauri Group, United States

IAC-12.E6.1.6
THEORY BASED ANALYSIS OF THE COMMERCIAL CREW TO ORBIT TRANSPORTATION INDUSTRY STRUCTURE AND EVOLUTION
Bradley Cheetham, University of Colorado, United States

IAC-12.E6.1.7
STRATEGY OF SPACE FIRMS. APPLICATION TO THE COMMERCIAL LAUNCH BUSINESS
Bertrand de Hauteclocque, Bureau d'Economie Théorique et Appliquée. Strasbourg University, France

IAC-12.E6.1.9
EXPLORING INNOVATION DEVELOPMENT AND FUNDING WITHIN THE SPACE INDUSTRY IN DEVELOPING NATIONS WITH A FOCUS ON AFRICAN OPPORTUNITIES AND ACCESS TO SPACE WITH A FOCUS ON ASSOCIATED POLICY AND ECONOMIC CONSTRAINTS.
Carla Sharpe, Foundation for Space Development South Africa, South Africa

IAC-12.E6.1.10
USER COMMUNITY DEVELOPMENT FOR SUBORBITAL SPACE FLIGHT OPPORTUNITIES IN JAPAN
Misuzu Onuki, Space Frontier Foundation, Japan

E6.2. Entrepreneurship and Investment for Commercial in-Space Activities

October 4 2012, 15:15 — TS06 (Canopus, Hall 3)

Chairs: *Aude de Clercq, European Space Agency (ESA), The Netherlands; David Bearden, Aerospace Corporation, United States;*
Rapporteur: *Thomas Olson, Exodus Consulting Group, United States;*

IAC-12.E6.2.1
OPENING THE FRONTIER - STIMULATING SPACE INDUSTRIALIZATION WITH SHACKLETON ENERGY COMPANY'S DEPOT INFRASTRUCTURE
Jim Keravala, Shackleton Energy Company, United States

IAC-12.E6.2.2
THE BUSINESS CASE FOR MINING HE-3 FROM LUNAR REGOLITH
Amanda Owens, University of Alabama in Huntsville, United States

IAC-12.E6.2.3
BUSINESS OF ARTIFICIAL METEORIC SHOWER EVENT
Yeongju Kim, Korea, Republic of

IAC-12.E6.2.4
COMMERCIAL ON-ORBIT SATELLITE SERVICING: POLICY CONSIDERATIONS RAISED BY RECENT INDUSTRY PLANS
Alanna Krolikowski, University of Toronto, Canada

IAC-12.E6.2.5
PRIZES AS A DRIVER OF COMMERCIAL SPACE INNOVATION, CASE STUDY: THE BUSINESS PLAN COMPETITION
Thomas Olson, Exodus Consulting Group, United States

IAC-12.E6.2.6
NEW CONCEPT ABOUT CONTRACT WITH MICRO INDUSTRY OR SMALL ENTERPRISE WILLING TO COMPLETE IN THE SPACE DEVELOPMENT BUSINESS
Kei-ichi Hirako, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.E6.2.7
THE ECOSYSTEM OF NANOSATELLITES – A NOVEL APPROACH TO IDENTIFYING BUSINESS OPPORTUNITIES IN THE NANOSATELLITE

SPACE
Peter Platzer, International Space University (ISU), France

IAC-12.E6.2.8
PREREQUISITES FOR NEW MINING PARADIGMS
Daniel Faber, Heliocentric, Australia

IAC-12.E6.2.9
THE AIRLINE MODEL ROLE OF GOVERNMENT IN COMMERCIAL CREW TRANSPORTATION
Alan T. DeLuna, United States

IAC-12.E6.2.10
THINK DIFFERENT – GENERIC ECONOMIC MODELS FOR ON-ORBIT SERVICING (OOS) AND SPACE DEBRIS REMOVAL
Joerg Kreisel, JOERG KREISEL International Consultant (JKIC), Germany

IAC-12.E6.2.11
URTHECAST: CHANGING OUR VIEW OF EARTH
Nicholas Waltham, Rutherford Appleton Laboratory, United Kingdom

E6.3. Unique Perspectives of Space Entrepreneurship and Investment

October 5 2012, 09:00 — TS06 (Canopus, Hall 3)
***Chairs:** Max Grimard, EADS Astrium, France; A.C. Charania, Particle 9, Inc., United States;*
Rapporteur: Kevin Stube, The Planetary Society, United States;

IAC-12.E6.3.1
ROAD MAP TO THE FUTURE OF PRIVATE COMMERCIAL SPACE INDUSTRY IN INDIA: VISION FOR SPACE ENTREPRENUERSHIP AND INVESTMENT
Aafaque Khan, Maulana Azad National Institute of Technology, India

IAC-12.E6.3.2
LEADING TO SUSTAINABLE DEVELOPMENT IN THAILAND'S SPACE INDUSTRY – THAILAND'S SPACE KREANOVATION PARK
Ravit Sachasiri, Geo-Informatics and Space Technology Development Agency (GISTDA), Thailand

IAC-12.E6.3.3
SPACE ENTREPRENEURSHIP IN ITALY
Matteo Ainardi, EADS Astrium Services, France

IAC-12.E6.3.4
SPACE ENTREPRENEURSHIP CHALLENGES TO CREATE COMMERCIAL SPACE PROJECTS IN JAPAN – ENGINEERING AND IDEAS TO OPEN NEW SPACE MARKETS
Misuzu Onuki, Space Frontier Foundation, Japan

IAC-12.E6.3.5
ENTREPRENEURSHIP AND INVESTMENT: A REVIEW OF INNOVATIVE FINANCING APPROACHES ACCROSS OECD AND NON-OECD COUNTRIES
Claire Jolly, Organisation for Economic Co-operation and Development (OECD), France

IAC-12.E6.3.6
SPACE MARKETING: REBRANDING AND POSITIONING SPACE BUSINESSES
Farnaz Ghadaki, International Space University (ISU), Canada

IAC-12.E6.3.7
DIYSPACE: THE RISE OF THE MAKER COMMUNITY & PRIVATE CITIZENS' ACCESS TO OUTER SPACE
Matthew Reyes, NASA, United States

IAC-12.E6.3.8
BUILDING THE INSTITUTIONAL ENVIRONMENT SUPPORTING NEW COMMERCIAL PLAYERS FOR SPACE ACTIVITIES
Dmitry Payson, Skolkovo Foundation, Russia

IAC-12.E6.3.9
CATAPULT - A UK INITIATIVE FOR STIMULATING TECHNOLOGY INNOVATION IN THE COMMERCIAL SPACE SECTOR
John Yates, UK Technology Strategy Board, United Kingdom

IAC-12.E6.3.10
SUBORBITAL RESEARCH MARKET INDUSTRY STRUCTURAL ANALYSIS
Ken Davidian, Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST), United States

E6.4-D4.2. Joint Session on Global Public/ Private Innovative Initiatives in Spaceflight

October 2 2012, 15:15 — TS04 (Antares, Hall 2)
***Chairs:** Horst Rauck, Germany; Rachel Villain, Euroconsult, France;*
***Rapporteur:** Sundaram Ramakrishnan, Indian Space Researh Organisation, India;*

IAC-12.E6.4-D4.2.1
GOVERNMENT'S ROLE IN COMMERCIAL SPACE FROM THE PERSPECTIVE OF EMERGING INDUSTRY LEADERS
Bradley Cheetham, University of Colorado, United States

IAC-12.E6.4-D4.2.2
CHINA-U.S. RELATIONS IN COMMERCIAL SPACE AND AIRCRAFT MANUFACTURING: SPECIALIST CULTURES AND PATTERNS OF TRANSNATIONAL INDUSTRY INTEGRATION
Alanna Krolikowski, University of Toronto, Canada

IAC-12.E6.4-D4.2.3
OPPORTUNITIES TO INCREASE EFFICIENCY AND COLLABORATION THROUGH OPEN DESIGN
Emily Calandrelli, MIT, United States

IAC-12.E6.4-D4.2.4
PPP AS A MECHANISM OF INTERNATIONAL COOPERATION OF THE RUSSIAN FEDERATION, GERMANY AND INDONESIA IN SPACE INDUSTRY
Dina Pogosyan, Air Launch Aerospace Corporation, Russia

IAC-12.E6.4-D4.2.5
THE BIRTH PROCESS OF START-UPS IN SPACE
Thomas Tanghe, European Space Agency (ESA), France

IAC-12.E6.4-D4.2.6
LESSONS LEARNED FROM AN EXAMINATION OF RESEARCH PARKS TO IMPROVE CURRENT AND FUTURE RESEARCH PARKS
Kevin Stube, The Planetary Society, United States

IAC-12.E6.4-D4.2.7
THE DEVELOPMENT OF A REGULATORY INFRASTRUCTURE TO ENABLE COMMERCIAL HUMAN SPACEFLIGHT IN EUROPE
Charles Lauer, Rocketplane Global, Inc., United States

IAC-12.E6.4-D4.2.8
SPACEPORT PUBLIC PRIVATE PARTNERSHIPS IN JAPAN, WHICH SUPPORT COMMERCIAL HUMAN SPACE FLIGHT ACTIVITIES
Misuzu Onuki, Space Frontier Foundation, Japan

IAC-12.E6.4-D4.2.9
GLOBAL SEAPORT DEVELOPMENT: A MODEL FOR FUTURE L2 GATEWAY FACILITY DEVELOPMENT
Nicole Herrmann, United States

IAC-12.E6.4-D4.2.10
PROJECT MANAGEMENT STRATEGIES FOR THE MOON AND MARS
Paivi Jukola, Helsinki University of Technology (TKK), Finland

E7. 55th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE

***Coordinator:** Corinne Jorgenson, Advancing Space, United States; Mark Sundahl, Cleveland State University, United States;*

E7.1. Nandasiri Jasentuliyana Keynote Lecture on Space Law & 4th Young Scholars Session

October 2 2012, 10:15 — TS10 (Sirius, Hall 3)
***Chairs:** Tanja Masson-Zwaan, International Institute of Air and Space Law, Leiden University, The Netherlands; Elisabeth Back Impallomeni, University of Padova, Italy;*
***Rapporteur:** Olavo De Oliveira Bittencourt Neto, University of Sao Paulo, Brazil;*

IAC-12.E7.1.1
NANDASIRI JASENTULIYANA KEYNOTE LECTURE ON SPACE LAW
Sergio Marchisio, Italian National Research Council - CNR, Italy

IAC-12.E7.1.2
SPACE DEBRIS- LEGAL ASPECTS
ANTONIA NEDELKOPOULOU, Netherlands Antilles

IAC-12.E7.1.3
NATIONAL SPACE LEGISLATION FOR EMERGING SPACE-CAPABLE NATIONS
Christopher Johnson, International Institute of Space Law (IISL), France

IAC-12.E7.1.4
NATURAL DISASTERS: THE DUTY TO WARN
Diego Zannoni, Italy

IAC-12.E7.1.5
SPACE LAW - FUTURE CHALLENGES AND POTENTIAL SOLUTIONS
Divyanshu Agrawal, National Law School of India University, India

IAC-12.E7.1.6
THE NOTION OF 'DAMAGE' CAUSED BY A SPACE OBJECT UNDER THE 1972 LIABILITY CONVENTION: OLD AND NEW ISSUES
Elena Carpanelli, Italy

IAC-12.E7.1.7
PROGRESSIVE DEVELOPMENT IN THE FIELD OF SPACE WEAPONS: WHAT CAN BE EXPECTED?
Guillermo Duberti, LL.M, Universidad de Belgrano, Argentina

IAC-12.E7.1.8
INTERACTION BETWEEN DIVERSE SOURCES OF LAW APPLICABLE TO LEGAL CHALLENGES CAUSED BY COMMERCIAL SPACE ACTIVITIES
Mariam Yuzbashyan, Moscow State Institute of International Relations (University), Russia

IAC-12.E7.1.9
THE ELUSIVE FRONTIER: REVISITING THE DELIMITATION OF OUTER SPACE
OLAVO DE OLIVEIRA BITTENCOURT NETO, University of Sao Paulo, Brazil

IAC-12.E7.1.10
SPACE LAW AND MILITARIZATION: AN INDUCTIVE APPROACH TO THE BOUNDARY PROBLEM
Rik Hansen, K.U. Leuven, Belgium

IAC-12.E7.1.11
IMPACT OF GERMANY'S RECENT SPACE POLICY AND PROGRESS TOWARDS A NATIONAL LEGISLATION
Sandra Teichert, HE Space, Germany

IAC-12.E7.1.12
HOW TO FINANCE THE SPACE INDUSTRY? SOME INSIGHTS ON THE CAPE TOWN CONVENTION, ITS SPACE PROTOCOL, THE AVIATION SECTOR EXPERIENCE & E TUTTO IL RESTO.
Caroline Devaux, France

IAC-12.E7.1.13
ENVIRONMENT IMPACT ASSESSMENT OF ACTIVITIES IN OUTER SPACE
Aditya Sharma, National Law University, India

IAC-12.E7.1.14
LEGAL LACUNAE IN EO DATA USED AS EVIDENCE IN COMPLIANCE FOR MARINE ENVIRONMENT PROTECTION
Angeline Asangire Oprong, University of Bremen, Germany

IAC-12.E7.1.15
THE NORMATIVE IMPLICATION OF UNIDROIT SPACE PROTOCOL FOR CORPUS JURIS SPATIALIS: REVOLUTIONARY OR EVOLUTIONARY?
Rong Du, The University of Hong Kong, Hong Kong

IAC-12.E7.1.17
COLLISIONS IN OUTER SPACE AND ARTICLE 3 OF THE LIABILITY CONVENTION, 1972
Shashank Reddy, National Law School of India University, India

IAC-12.E7.1.18
REGULATING MILITARY USE OF NEAR SPACE: ANALOGY TO THE LAW OF THE SEA?
Jinyuan SU, Xi'an Jiaotong University School of Law, China

IAC-12.E7.1.20
THE CONCEPT OF LAUNCHING STATE: LIABILITY ON THE BASIS OF SUBSTANTIAL INVOLVEMENT
Sagnik Chatterjee, Other, India

IAC-12.E7.1.21
DEVELOPMENT IN SPACE LAW: A COMPARATIVE APPROACH TO A SOUTH AFRICAN PERSPECTIVE
Serena Kalbskopf, South Africa

IAC-12.E7.1.22
LIABILITY FOR INDIRECT DAMAGE CAUSED BY SPACE OBJECTS ON EARTH
Zhao Wang, China

IAC-12.E7.1.23
PPWT 2008 VS EU CODE OF CONDUCT 2008
Maria Pozza, New Zealand

IAC-12.E7.1.24
ISSUES OF LIABILITY AND NEED FOR A COMPREHENSIVE CODE FOR LICENSING ACTIVITIES IN OUTER SPACE
Aditya Sharma, National Law University, India

IAC-12.E7.1.25
A BRANCH OF INTERNATIONAL LAW OR AN UNDERMINING FACTOR TO INTERNATIONAL LAW: A STUDY ON THE DEVELOPMENET OF SPACE LAW AND ITS TENDENCY
Zhuoyan Lu, University of Lapland, Finland

IAC-12.E7.1.26
HOW TO FOSTER THE DEVELOPMENT OF SPACE COMMERCE THROUGH LAW AND ECONOMICS
Martina Srblin, Slovenia

IAC-12.E7.1.28
LEGAL FRAMEWORK FOR SPACE TOURISM ACTIVITIES
Joyeeta Chatterjee, Institute of Air and Space Law, McGill University, Canada

IAC-12.E7.1.29
INDIAN LIMITATION AND LIABILITY ACT
Anubhav Sinha, Supreme Court of India, India

IAC-12.E7.1.30
LOW EARTH ORBITAL ZONES- A LEGAL SHAKEDOWN
Utsav Mukherjee, India

IAC-12.E7.1.31
LEGAL ISSUES CONCERNING REGISTRATION OF SPACE OBJECTS - A STUDY OF JAXA'S PRACTICES AND FUTURE CHALLENGE -
Hiroyuki Kishindo, Japan Aerospace Exploration Agency (JAXA), Japan

E7.2. The Interaction between International Private Law and Space Law and its Impact on Commercial Space Activities

October 2 2012, 15:15 — TS10 (Sirius, Hall 3)
Chairs: Martin Stanford, Unidroit, Italy; Paul Larsen, Georgetown University Law Center, United States;
Rapporteur: Olga S. Stelmakh, V.Koretsky Institute of State and Law, National Academy of Sciences of Ukraine / Juristische Aufgaben Raumfahrtmanagement, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;

IAC-12.E7.2.1
THE UNIDROIT PROTOCOL TO THE CAPE TOWN CONVENTION ON MATTERS SPECIFIC TO SPACE ASSETS
Martin Stanford, Unidroit, Italy

IAC-12.E7.2.2
SPACE ASSETS PROTOCOL AND COMPLIANCE WITH INTERNATIONAL AND DOMESTIC LAW
Sergio Marchisio, Italian National Research Council - CNR, Italy

IAC-12.E7.2.3
THE USE OF SECURITY UNDER THE PFI/PPP PROJECT AND THE MEANING OF THE SPACE ASSETS PROTOCOL TO THE CAPE TOWN CONVENTION
SOUICHIROU KOZUKA, Gakushuin University, Japan

IAC-12.E7.2.4
THE SPACE PROTOCOL TO THE CAPE TOWN CONVENTION AND THE UN SPACE LAW TREATIES
Paul Larsen, Georgetown University Law Center, United States

IAC-12.E7.2.5
THE COMMERCIAL IMPLICATIONS OF THE DRAFT SPACE PROTOCOL OF THE CAPE TOWN CONVENTION
Vittorio Colella Albino, Telespazio, Italy

IAC-12.E7.2.6
LEGAL ISSUES IN CHINA'S RATIFICATION OF THE SPACE PROTOCOL
Yun Zhao, The University of Hong Kong, Hong Kong

IAC-12.E7.2.7
LAST COMMENTS ON THE TEXT OF THE DRAFT PROTOCOL TO THE CONVENTION ON INTERNATIONAL INTERESTS IN MOBILE EQUIPMENT ON MATTERS SPECIFIC TO SPACE ASSETS
Gabriella Catalano Sgrosso, University of Rome "La Sapienza", Italy

IAC-12.E7.2.8
HOW THE RESCUE AND RETURN AGREEMENT CAN PROTECT (AND HARM) THE INTERESTS OF A CREDITOR UNDER THE CAPE TOWN CONVENTION
Mark Sundahl, Cleveland State University, United States

IAC-12.E7.2.9
COLLISIONS IN SPACE: PERSPECTIVES ON THE LAW APPLICABLE TO DAMAGE ARISING FROM SPACE OBJECTS
Lesley Jane Smith, Leuphana University of Lüneburg/Weber-Steinhaus & Smith, Germany

IAC-12.E7.2.10
PRIVATIZATION OF SPACE LAW: NEGOTIATING OF COMMERCIAL AND BENEFIT-SHARING ISSUES IN THE UTILIZATION OF OUTER SPACE.
Atip Latipulhayat, Padjadjaran University, Indonesia

IAC-12.E7.2.11
CORPORATE GOVERNANCE AND THE COMMERCIALIZATION OF SPACE TRANSPORTATION
Seiko Morikawa, Japan Aerospace Exploration Agency (JAXA), Japan

IAC-12.E7.2.12
THE LAUNCHING STATE. AN ELEMENT OF PUBLIC INTERNATION AL LAW OR PRIVATE INTERNATIONAL LAW?
Matxalen Sanchez Aranzamendi, Belgium

IAC-12.E7.2.13
TOWARDS A NEW INTERNATIONAL SPACE LIABILITY REGIME ALONGSIDE THE LIABILITY CONVENTION 1971
Hamid Kazemi, Iran

IAC-12.E7.2.14
THE CHOICE OF LAW IN PRIVATE SPACEFLIGHT CONTRACTS UNDER THE CHINESE CONFLICT RULES
Guoyu Wang, China

IAC-12.E7.2.15
THE LEGAL AND POLICY CONSIDERATIONS IN IMPLEMENTING THE SPACE ASSETS PROTOCOL: LESSONS FROM THE AIRCRAFT EQUIPMENT PROTOCOL IN SOUTH AFRICA
Phetole Sekhula, South Africa

E7.3. The International Legal Regulation of Outer Space within the Scope of Public International Law

October 3 2012, 10:15 — TS10 (Sirius, Hall 3)

Chairs: *Stephan Hobe, University of Cologne, Germany; Steven Freeland, University of Western Sydney, Australia;*
Rapporteur: *Elena Carpanelli, Italy;*

IAC-12.E7.3.1
A ROADMAP FOR A SUSTAINABLE SPACE LEGAL REGIME
Henry Hertzfeld, Space Policy Institute, George Washington University, United States

IAC-12.E7.3.2
ANALOGUES BETWEEN SPACE LAW AND LAW OF THE SEA/ INTERNATIONAL MARITIME LAW: CAN SPACE LAW USEFULLY BORROW OR ADAPT RULES FROM THESE OTHER AREAS OF PUBLIC INTERNATIONAL LAW?
Matthew Schaefer, University of Nebraska, College of Law, United States

IAC-12.E7.3.3
CONTIGUOUS ZONE BETWEEN AIR SPACE AND OUTER SPACE
Sang-Myon Rhee, Seoul National University, Korea, Republic of

IAC-12.E7.3.4
CRITICAL LEGAL ISSUES ASSOCIATED WITH CURRENT AND FUTURE SPACEFARING ENDEAVORS
Richard Burks, United States

IAC-12.E7.3.5
REVISIT THE CONCEPT OF INTERNATIONAL CUSTOM IN INTERNATIONAL SPACE LAW
Jingjing Nie, China

IAC-12.E7.3.6
STATE LIABILITY FOR MILITARY SPACE ACTIVITIES
Michel Bourbonniere, CSA, Canada

IAC-12.E7.3.7
THE APPLICABILITY OF RULES OF INTERNATIONAL HUMANITARIAN LAW TO MILITARY CONFLICTS IN OUTER SPACE: LEGAL CERTAINTY OR TIME FOR A CHANGE?
Fabio Tronchetti, Harbin Institute of Technology, China

IAC-12.E7.3.8
THE RELATIONSHIP BETWEEN THE UNITED NATIONS SPACE TREATIES AND THE VIENNA CONVENTION ON THE LAW OF TREATIES
Ram S. Jakhu, McGill University, Canada

IAC-12.E7.3.9
THE STANDARD OF DUE DILIGENCE IN OPERATING A SPACE OBJECT
Setsuko Aoki, Keio University, Japan

IAC-12.E7.3.10
THE WORLD HERITAGE CONVENTION AND OUTER SPACE: FROM TERRITORIAL TO INTERNATIONAL TO SPACE HERITAGE
Lotta Viikari, University of Lapland, Finland

IAC-12.E7.3.11
THEORETICAL AND HISTORICAL PREMISES FOR CONSIDERATION OF THE INTERNATIONAL LEGAL REGIME OF CIVIL SECURITY IN THE OUTER SPACE
Olga S. Stelmakh, V.Koretsky Institute of State and Law, National Academy of Sciences of Ukraine / Juristische Aufgaben Raumfahrtmanagement, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.E7.3.12
THE DICHOTOMY BETWEEN THE DUTY TO PROVIDE INFORMATION AND SECURITY CONCERNS OF THE STATE
Ksenia Shestakova, Russia

E7.4. Legal Evidence from Outer Space

October 3 2012, 15:15 — TS10 (Sirius, Hall 3)

Chairs: *Marco Ferrazzani, European Space Agency (ESA), France; Ray Purdy, University College London, United Kingdom;*
Rapporteur: *Michael Chatzipanagiotis, Greece;*

IAC-12.E7.4.2
EVIDENCE FROM SPACE AND ITS VALIDITY IN LEGAL PROCEEDINGS: DISPUTE SETTLEMENT IN LIGHT OF THE 2011 PCA PROCEDURAL RULES ON ARBITRATION (2011)
Maureen Williams, Chair, ILA Space Law Committee, UK & UBA, Conicet, Buenos Aires, Argentina

IAC-12.E7.4.3
REMOTE SENSING IMAGERY AND MARITIME SECURITY: PRIVACY PROBLEMS AND LEGAL SOLUTIONS
Carlo Golda, University of Genova, Italy

IAC-12.E7.4.4
THE USE OF DATA FROM EARTH OBSERVATION SATELLITES IN CRIMINAL PROCEEDINGS: CASE STUDY ILLEGAL OIL DISCHARGES AT SEA
Sarah Moens, lawyer, Belgium

IAC-12.E7.4.5
THE USE OF SATELLITE IMAGES FOR PROSECUTING PERSONS AND COMPANIES THAT HAVE CAUSED DEFORESTATION IN THE AMAZON REGION
Alvaro Fabricio Dos Santos, Advocacy General of the Union - AGU, Brazil

IAC-12.E7.4.6
"THE USE OF SATELLITE DATA IN THE ITALIAN JUDICIARY POLICE INVESTIGATION TO TRACK ILLICIT TRAFFIC AND DEPOSIT OF WASTE"
Vanessa Passoni, Università degli Studi di Padova, Italy

IAC-12.E7.4.7
IMPACT OF SATELLITE DATA USED BY HIGH INTERNATIONAL COURTS LIKE THE ICJ (INTERNATIONAL COURT OF JUSTICE) AND ITLOS (INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA)
Annette Froehlich, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.E7.4.8
LEGAL EVIDENCE FROM OUTER SPACE: AN APPROACH TO SPANISH JURISPRUDENCE
Maria del Carmen Munoz Rodriguez, University of Jaen, Spain

IAC-12.E7.4.9
EVIDENTIAL VALUE OF SPACE DATA, AN INDIAN PERSPECTIVE
Muhamed Mustaque, India

IAC-12.E7.4.10
JUDICIAL ADMISSIBILITY OF SATELLITE DATA/EVIDENCE IN NIGERIAN COURTS
OLUSOJI NESTER JOHN, National Space Research and Development Agency,Nigeria, Nigeria

IAC-12.E7.4.11
THE USE OF SATELLITE-DERIVED EARTH OBSERVATION DATA AS LEGAL EVIDENCE IN THE REGION OF LATIN AMERICA AND THE CARIBBEAN
Guergana Kermektchieva, University of Paris XI, France

E7.5. Recent Developments in Space Law

October 5 2012, 09:00 — TS10 (Sirius, Hall 3)

Chairs: *Corinne Jorgenson, Advancing Space, United States; Ranjana Kaul, Dua Associates, India;*
Rapporteur: *Sergiy Negoda*

IAC-12.E7.5.1
LEGAL ISSUES PRESENTED BY HOSTED PAYLOADS
Milton Smith, Sherman & Howard, LLC, United States

IAC-12.E7.5.2
THE NEW DEVELOPMENT OF CHINA'S SPACE POLICY
Li Shouping, Beijing Institute of Technology, China

IAC-12.E7.5.3
CULMINATION OF EFFORTS IN THE AREA OF NATIONAL SPACE LEGISLATION IN 2012
Irmgard Marboe, University of Vienna, Austria

IAC-12.E7.5.4
CAPACITY-BUILDING OF THE NATIONAL SPACE LEGISLATION IN THE POST-SOVIET COUNTRIES: THE RECENT CONTRIBUTION OF KAZAKHSTAN
Olga S. Stelmakh, V.Koretsky Institute of State and Law, National Academy of Sciences of Ukraine / Juristische Aufgaben Raumfahrtmanagement, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany

IAC-12.E7.5.5
THE EMERGENCE OF NATIONAL SPACE LAW LEGISLATION
Paul Dempsey, McGill University, Canada

IAC-12.E7.5.6
SPACE LAW IN THE LIGHT OF BOBBIOS'S THEORY OF LEGAL ORDERING
José Monserrat-Filho, Brazilian Space Agency (AEB), Brazil

IAC-12.E7.5.7
WORLD RADIOCOMMUNICATION CONFERENCE 2012: RESULTS AFFECTING INTERGOVERNMENTAL SATELLITE ORGANIZATIONS
Elina Zaytseva, INTERSPUTNIK International Organization of Space Communications, Russia

IAC-12.E7.5.8
ORBITING UNDER THE RADAR: NANO-SATELLITES, INTERNATIONAL OBLIGATIONS AND NATIONAL SPACE LAWS
Neta Palkovitz, ISIS- Innovative Solutions In Space B.V., The Netherlands

IAC-12.E7.5.9
THE RADIOCOMMUNICATION ASSEMBLY (RA-12) AND THE WORLD RADIO CONFERENCE (WRC-12), GENEVA, JANUARY/FEBRUARY 2012: PROGRESS (?).
Francis Lyall, University of Aberdeen, Scotland, U.K., United Kingdom

IAC-12.E7.5.10
SPACE INSURANCE LAW - A NEW STEP TO SPACE COMMERCIALIZATION IN THE RUSSIAN FEDERATION
Olga Volynskaya, Federal Space Agency (ROSCOSMOS), Russia

IAC-12.E7.5.11
ESA'S CHOICE OF FUTURES: ENVISAT REMOVAL OR FIRST LIABILITY CASE
Martha Mejia-Kaiser, Independent Researcher, Germany

IAC-12.E7.5.12
ACTUAL SITUATION IN THE GEOSTATIONARY ORBIT
Lubos Perek, Astronomical Institute, Czech Academy of sciences, Czech Republic

IAC-12.E7.5.13
IMPLEMENTATION OF THE FRENCH SPACE OPERATION ACT FOR LAUNCHERS, AND CONTRIBUTION TO THE CONTROL OF RISKS
CAHUZAC FRANCOIS, CNES, France

IAC-12.E7.5.14
LEGAL ISSUES RELATED TO THIRD PARTY LIABILITY INSURANCE AT REALIZATION OF THE AIR LAUNCH CONCEPT
Dina Pogosyan, Air Launch Aerospace Corporation, Russia

IAC-12.E7.5.15
DRAFT UNGA RESOLUTION ON SUSTAINABILITY OF SPACE ENVIRONMENT
Mahulena Hofmann, University of Luxembourg, Luxemburg

IAC-12.E7.5.16
ANOTHER ADDITION TO NATIONAL SPACE LEGISLATION: THE AUSTRIAN OUTER SPACE ACT, ADOPTED 6 DECEMBER 2011
Frans von der Dunk, University of Nebraska-Lincoln, The Netherlands

E7.6-E3.5. 27th IAA/IISL Scientific-Legal Round Table "Optical Communication"

October 4 2012, 10:15 — TS08 (Rigel, Hall 3)

Chairs: *Masahiko Sato, Japan Aerospace Exploration Agency (JAXA), Japan; Pierre Molette, France;*
Rapporteur: *Nicola Rohner-Willsch, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany;*

IAC-12.E7.6-E3.5.1
INTERNATIONAL TELECOMUNICATIOS UNION INSTRUMENTS IN TELECOMUNICATIONS SECURITY
Gudino Otto, Ramirez de Arellano y Abogados, S.C. Law Firm, Mexico

E7.7-B3.8. Joint IAF/IISL Session on Legal Framework for Cooperative Space Endeavours

October 5 2012, 14:00 — TS11 (Egadi, Palacongressi)

Chairs*: Cristian Bank, EADS Astrium Space Transportation GmbH, Germany; Lesley Jane Smith, Leuphana University of Lüneburg/Weber-Steinhaus & Smith, Germany;*
Rapporteur: *Luise Weber-Steinhaus, Astrium Space Transportation, Germany;*

IAC-12.E7.7-B3.8.1
EXPERIENCE WITH EUROPEAN COLLABORATIVE SPACE PROJECTS (TBC)
Simonetta Di Pippo, Italian Space Agency (ASI), The Netherlands

IAC-12.E7.7-B3.8.2
EXPERIENCE MADE IN RUSSIA IN INTERNATIONAL COLLABORATIVE PROJECTS (TBC)
Cristian Bank, EADS Astrium Space Transportation GmbH, Germany

IAC-12.E7.7-B3.8.3
LEGAL ISSUES OF MANNED SPACE STATION
Haifeng Zhao, Harbin Institute of Technology, China

IAC-12.E7.7-B3.8.4
THE ISS LEGAL FRAMEWORK AS A PLATFORM FOR DEVELOPING NEW COOPERATIVE AGREEMENTS, ASSOCIATED POLICY ISSUES FOR THESE AGREEMENTS.
Carla Sharpe, Foundation for Space Development South Africa, South Africa

IAC-12.E7.7-B3.8.5
SCENARIO ANALYSIS OF INTERNATIONAL COOPERATION OPPORTUNITIES FOR ITALY IN FUTURE HUMAN SPACEFLIGHT PROGRAMS
Walter Villadei, Italian Air Force, Italy

IAC-12.E7.7-B3.8.6
USE OF INDEPENDENCE, NON-DEPENDENCE AND INTERDEPENDENCE AS STRATEGIC ELEMENTS IN SPACE PARTNERSHIPS
Marc Haese, DLR, German Aerospace Center, Germany

IAC-12.E7.7-B3.8.7
THE IMPACT OF THE INTELLECTUAL PROPERTY LEGAL REGIME IN PROTECTING IP RIGHTS GENERATED IN OUTER SPACE ACTIVITIES
Leo Malagar, The Philippines

IAC-12.E7.7-B3.8.8
LEGAL IMPLICATIONS OF DEBRIS REMOVAL: CLEAN SPACE ONE UNDER INVESTIGATION
Melissa K. Force, MK Force Consultants International, United States

IAC-12.E7.7-B3.8.9
THE OPTIONAL RULES OF ARBITRATION OF DISPUTES RELATING TO OUTER SPACE ACTIVITIES OF THE PERMANENT COURT OF ARBITRATION, A REAL OPTION FOR THE SOLUTION OF CONFLICTS IN SPACE MATTER?
Camilo Guzman, UNIVERSIDAD SERGIO ARBOLEDA, Colombia

IAC-12.E7.7-B3.8.10
PRACTICAL AND LEGAL CONSEQUENCES OF SPACECRAFT END OF LIFE DISPOSAL
David Finkleman, American Institute of Aeronautics and Astronautics (AIAA), United States

IAC-12.E7.7-B3.8.11
THE CURRENT AND FUTURE EFFORTS FOR REACHING LONG-TERM SUSTAINABILITY OF OUTER SPACE: IS IT THE TIME TO LEGALLY DEVELOP BINDING RULES RELATED TO SPACE DEBRIS?
Ana Cristina van Oijhuizen Galhego Rosa, The Netherlands

IAC-12.E7.7-B3.8.14
FAMILY LAW AND INTERNATIONAL SPACE TRAVEL
Susan Myres, Myres, Dale & Associates, United States

E8. IAA MULTILINGUAL ASTRONAUTICAL TERMINOLOGY SYMPOSIUM

Coordinator: *Susan McKenna-Lawlor, Space Technology (Ireland) Ltd., Ireland; Tetsuo Yoshimitsu, ISAS/JAXA, Japan;*

E8.1. Multilingual Astronautical Terminology

October 3 2012, 10:15 — TS19 (Vega, Palacongressi)

Chairs: *Susan McKenna-Lawlor, Space Technology (Ireland) Ltd., Ireland; Tetsuo Yoshimitsu, ISAS/JAXA, Japan;*

IAC-12.E8.1.1
CURRENT STATUS AND FUTURE PROSPECT OF IAA MULTILINGUAL SPACE DICTIONARY
Tetsuo Yoshimitsu, ISAS/JAXA, Japan

IAC-12.E8.1.2
CREATION, IMPROVEMENT AND APPLICATION OF THE SPECIAL MULTILANGUAGE VOCABULARY OF STANDARD AEROSPACE TERMS FOR THE CONTRACT TERMS FORMATION AND THE ENGINEERING OF SPACE PROJECTS
Iurii Stryzhak, Ukraine

IAC-12.E8.1.3
SETTING A STANDARD FOR SPACE RELATED NAMES, ACRONYMS, AND TECHNICAL TERMS.
Henrique Casagrande, University of Alabama in Huntsville, United States

IAC-12.E8.1.4
LANGUAGE PROTOCOLS IN INTERNATIONAL HUMAN SPACEFLIGHT: PAST EXPERIENCES AND FUTURE PERSPECTIVES FOR SPACE MEDICINE
Megan Ansdell, Space Policy Institute, George Washington University, United States

IAC-12.E8.1.5
SPACE TECHNOLOGY IMPERATIVE, SOCIO-CULTURAL BACKDROP AND SPACE TERMINOLOGY - INDONESIAN PERSPECTIVE
Harijono Djojodihardjo, Universitas Al Azhar Indonesia, Indonesia

IAC-12.E8.1.6
SCIENTIFIC AND LINGUAL ISSUES OF TERMINOLOGY STUDIES IN THE FIELD OF SPACE SCIENCE
Fengyuan Zhuang, Beihang University, China

IAC-12.E8.1.7
COMPREHENSIVE STUDY OF THE ANCIENT INDIAN ASTRO-NAUTICAL TERMINOLOGIES AS REFERENCE TO MODERN SPACE SCIENCE
Ganesh Kulkarni, Siemens, India

YPVF. YOUNG PROFESSIONALS VIRTUAL FORUMS

Co-Chair: *Guillaume Girard, INnovative SYstem ENgineering (INSYEN), Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany; Kathleen Coderre, Lockheed Martin Corporation, United States;*

YPVF.1. Space Communications and Navigation (SCAN)

October 3 2012, 15:15 — TS19 (Vega, Palacongressi)

Chairs: *Edward W. Ashford, Ashford Aerospace Consulting, United States; Dipak Srinivasan, The Johns Hopkins University Applied Physics Laboratory, United States; Kevin Shortt, Canadian Space Society, Canada;*

IAC-12.YPVF.1.1
KEYNOTE: STATUS OF GLOBAL NAVIGATION SATELLITE SYSTEMS AND COMPATIBILITY, INTEROPERABILITY AND INTERCHANGEABILITY
Joe M. Straus, The Aerospace Corporation, United States

IAC-12.YPVF.1.3
END-TO-END MEASUREMENT ENVIRONMENT FOR AN ELECTRICAL STEERABLE KA-BAND INTER-SATELLITE LINK ANTENNA
Jürgen Letschnik, Technical University of Munich, Germany

IAC-12.YPVF.1.5
THE SENTINELS MISSION DATA SYSTEMS AND SECURE SPACE COMMUNICATIONS
Michael Koller, European Space Agency (ESA), Germany

YPVF.2. Human Space Endeavours Young Professionals Virtual Forum (HSE)

October 4 2012, 13:00 — TS19 (Vega, Palacongressi)

Chairs: *Shannon Ryan, Defence Science and Technology Organisation (DSTO), Australia; Alexandra Kindrat, International Space University (ISU), Canada;*

IAC-12.YPVF.2.5
HUMAN SPACEFLIGHT FINDINGS FROM THE 10 YEAR FORECAST OF MARKET DEMAND FOR SUBORBITAL REUSABLE VEHICLES
Emma Hinds, The Tauri Group, United States

IAC-12.YPVF.2.6
THE BIOMEDICAL CHALLENGES OF LONG-DISTANCE, LONG-DURATION HUMAN SPACEFLIGHT
Kris Lehnhardt, George Washington University, United States

YPVF.3. Global Earth Observation System of Systems (GEOSS)

October 4 2012, 15:15 — TS19 (Vega, Palacongressi)

Chairs: *Jacob Sutherlun, National Oceanic and Atmospheric Administration (NOAA), United States; Tiffany Chow, Secure World Foundation, United States;*

IAC-12.YPVF.3.2
COMMUNITY REMOTE SENSING FOR DISASTER MONITORING: A LEGAL PERSPECTIVE
Annelie Schoenmaker, Open Space Trace, France

IAC-12.YPVF.3.3
INTEGRATED SMALL SATELLITE SYSTEM FOR DISASTER MONITORING- A NOVEL CONCEPT TO MONITOR NATURAL DISASTERS FROM SPACE
Muhammad Shadab Khan, Department of Aeronautical Engineering,Babu Banarasi Das National Institute of Technology and Management,Lucknow, India

9.3 Author Index*

A = Author
CA = Co-author

A

Name	Role	Paper
A, Krishnan	CA	IAC-12.A3.2A.1
A, Krishnan	CA	IAC-12.A3.2B.3
A K, Anilkumar	CA	IAC-12.A6.2.16
A Khan, MD Ateeque	CA	IAC-12.A4.1.12
Aaron, Kim	CA	IAC-12.A6.5.14
Abbott, John	CA	IAC-12.B4.5.1
Abdala, Martha	CA	IAC-12.D1.3.12
Abdulrahim, Rasheedat Bola	A	IAC-12.D5.3.6
Abe, Oladipo Emmanuel	A	IAC-12.B2.1.7
Abe, Takashi	CA	IAC-12.E2.1.1
Abe, Takashi	CA	IAC-12.D2.3.3
Abe, Takumi	CA	IAC-12.C3.2.2
Abe, Tomoko	CA	IAC-12.E1.2.10
Abercromby, Kira	CA	IAC-12.A6.1.6
Abgoola, Olufemi	CA	IAC-12.C2.8.10
Aboudan, Alessio	CA	IAC-12.A3.3C.1
Abrahamsson, Mattias	CA	IAC-12.A2.3.4
ABUBAKAR, MUSA	CA	IAC-12.B1.5.3
Acar, Pinar	CA	IAC-12.B4.6B.12
Accettura, Antonio G.	CA	IAC-12.D2.7.1
Accettura, Antonio G.	A	IAC-12.C2.9.12
Accomazzo, Andrea	A	IAC-12.A3.4.1
Acosta Jacinto, Ruben	CA	IAC-12.B4.6B.4
Acton, David	CA	IAC-12.B4.5.9
Acuna-Bravo, Wilber	CA	IAC-12.A3.2D.34
Adachi, Masaki	A	IAC-12.C4.2.12
Adams, Dewey	CA	IAC-12.A3.2C.1
Adams, Geert	CA	IAC-12.B5.1.7
Adamson, Chris	CA	IAC-12.A1.7.4
Addanki, Neelima	A	IAC-12.C3.3.1
Adejube, Irepagamoye Joyce	CA	IAC-12.B1.4.11
Adekola, Stephen	CA	IAC-12.B1.6.6
Adetoro, Moshood	CA	IAC-12.C4.3.13
Adirosi, Doroteo	CA	IAC-12.B1.3.8
Adriaensen, Maarten	CA	IAC-12.E6.4-D4.2.5
Adriaensen, Maarten	A	IAC-12.E3.4.13
Adriaensen, Maarten	A	IAC-12.A6.6.8
Advanced Mission Research Group, JAXA	CA	IAC-12.C3.1.4
Afanaseva, Tatiana	CA	IAC-12.A6.2.10
Afelli, Elena	CA	IAC-12.B3.4-B6.5.5
Afful, Andoh Michael	A	IAC-12.A6.5.12
Agapit, Alex	CA	IAC-12.D2.2.4
Agapov, Vladimir	A	IAC-12.A6.1.4
Agapov, Vladimir	CA	IAC-12.A6.1.10
AGENE, JOY	A	IAC-12.B1.5.4
Aglietti, Guglielmo	A	IAC-12.C2.1.6
Aglietti, Guglielmo	CA	IAC-12.C2.3.3
Agnolon, David	CA	IAC-12.C1.3.8
Agostinelli, Fausto	CA	IAC-12.C2.4.1
Agostinelli, Fausto	CA	IAC-12.C2.8.1
Agostinelli, Fausto	CA	IAC-12.A3.3C.4
Agostinelli, Fausto	CA	IAC-12.C2.9.9
Agrawal, Brij	A	IAC-12.C2.5.4
Agrawal, Divyanshu	A	IAC-12.E7.1.5
Agrawal, Divyanshu	CA	IAC-12.E7.1.17
Agrawal, Vinod	CA	IAC-12.D5.1.3
Agrawal, Vinod	CA	IAC-12.C3.4.7
Aguado-Zunega, Jesus	CA	IAC-12.A1.7.10
Aguzzi, Manuela	A	IAC-12.B6.1.6
Ahedo, Eduardo	CA	IAC-12.C4.4.21
Ahmed, Muhammad Fahad	CA	IAC-12.C2.1.3
Ahn, Jaemyung	CA	IAC-12.D6.1.5
Ahn, Jaemyung	CA	IAC-12.D1.4.3
Ai-ling, Lv	CA	IAC-12.B1.3.13
Ainardi, Matteo	A	IAC-12.E3.3.7
Ainardi, Matteo	A	IAC-12.E6.3.3
Akaishi, Akira	A	IAC-12.B2.4.4
Akay, Mehmet Caner	CA	IAC-12.B4.6B.5
Akbar, Sohaib	A	IAC-12.C2.4.5
Akbar, Sohaib	CA	IAC-12.C2.4.13
Akima, Hiroshi	CA	IAC-12.A1.2.5
Akimitsu, Nobuyoshi	CA	IAC-12.A1.3.3
Akin, David	CA	IAC-12.D1.2.5
Akin, David	CA	IAC-12.C1.8.9
Akinwale, Olawale	CA	IAC-12.A2.5.10
Akioka, Maki	CA	IAC-12.B2.2.8
Akioka, Maki	CA	IAC-12.B2.4.3
Akita, Daisuke	CA	IAC-12.D2.3.3
Akiwate, Gautam	A	IAC-12.B4.1.8
Akubo, Patricia	A	IAC-12.B5.2.1
Akula, Praveen Kumar	CA	IAC-12.D2.3.6
Akyol, Isa Eray	A	IAC-12.C3.4.9
Al Jaziri, Hamad Mohd Salman Abdulla	CA	IAC-12.B4.6A.6
Al Mansoori, Ahmed	A	IAC-12.B4.1.2
Al Mansoori, Ahmed	A	IAC-12.E1.5.4
Al-Jalaud, Nouf	A	IAC-12.E1.6.5
Al-Marahleh Montes, Tariq	A	IAC-12.E6.1.1
Al-Marahleh Montes, Tariq	CA	IAC-12.E5.2.11
Al-Marahleh Montes, Tariq	CA	IAC-12.B4.8.7
Al-Marahleh Montes, Tariq	CA	IAC-12.E1.7.5
Alacevich, Roberto	CA	IAC-12.C1.4.9
Alary, Didier	CA	IAC-12.A6.7.7
Albanese, Carlo	CA	IAC-12.A2.5.9
Albanese, Carlo	CA	IAC-12.B3.4-B6.5.9
Albanese, Carlo	CA	IAC-12.B6.1.5
Albanese, Carlo	CA	IAC-12.E1.7.11
Albano, Marta	A	IAC-12.C2.4.1
Albano, Marta	A	IAC-12.C2.7.3
Albano, Marta	A	IAC-12.C2.8.1
Albano, Marta	A	IAC-12.A3.3C.4
Albano, Marta	CA	IAC-12.C2.9.9
Albat, Ruedeger	CA	IAC-12.D2.1.6
Alberti, Giovanni	CA	IAC-12.B1.3.8
Alberti, Giovanni	A	IAC-12.B1.3.10
Alberti, Giovanni	CA	IAC-12.A3.5.8
Albi, Elisabetta	CA	IAC-12.A1.7.2
Alcacera, Mª Ángeles	CA	IAC-12.A3.5.15
Alcorn, John	A	IAC-12.E1.3.8
Alcorn, John	A	IAC-12.E4.2.8
AlDhafri, Suhail	A	IAC-12.B4.6A.6
Alessi, Elisa Maria	CA	IAC-12.C1.5.13
Alexander, Agureev	CA	IAC-12.A1.8.5
Alexandrov, Alexander	CA	IAC-12.B3.5.8
Ali, Anwar	CA	IAC-12.B2.3.2
Ali, Anwar	CA	IAC-12.B4.7A.1
Ali, Anwar	A	IAC-12.C3.4.3
Ali, Anwar	A	IAC-12.C3.4.12
Ali, Haider	A	IAC-12.B2.3.2
Ali, Haider	A	IAC-12.B2.3.3
Ali, Haider	CA	IAC-12.C3.4.3
Ali-Fadiora, Lami	A	IAC-12.E1.5.11
Ali-Fadiora, Lami	A	IAC-12.E1.6.3
Aliakbargolkar, Alessandro	A	IAC-12.D1.4.6
Aliakbargolkar, Alessandro	CA	IAC-12.A5.4.1
Alibay, Farah	CA	IAC-12.E3.2.10
Alibay, Farah	A	IAC-12.A3.3A.9
Alifanov, Oleg	CA	IAC-12.C2.7.3
Aliyu, Bhar	CA	IAC-12.C4.3.13
Alizadeh, Ali	CA	IAC-12.B2.3.10
Allaway, Heather	CA	IAC-12.A1.2.12
Allik, Viljo	CA	IAC-12.C3.4.5
Almeida, Eduardo	CA	IAC-12.A1.7.3
Almeida, Jose Sergio	A	IAC-12.C2.7.7
Almeida, Miguel	CA	IAC-12.A3.5.19
Almeida, Rute	CA	IAC-12.A1.2.1
Alonso, Carlos	CA	IAC-12.E6.2.11
Alonsoperez, Maria Victoria	CA	IAC-12.A1.2.15
Alonsoperez, Maria Victoria	CA	IAC-12.B4.1.11
Altobelli, Nicolas	CA	IAC-12.A3.5.19
Altés-Arlandis, Blanca	CA	IAC-12.C1.4.9
Alvarado, Carlos	A	IAC-12.B4.1.7
Alvarado, Carlos	CA	IAC-12.E5.1.7
Alvarenga, Jessica	A	IAC-12.C2.5.10
Alvarenga, Jessica	CA	IAC-12.A3.5.12
Alves, Dimas Irion	CA	IAC-12.B1.3.12
Alves, Dimas Irion	A	IAC-12.C3.4.10
Alves, Luciene	CA	IAC-12.D1.3.12
Alwood, Joshua	CA	IAC-12.A1.7.3
Alyamovskyi, Andrii	CA	IAC-12.C2.4.6
Ambesi Impiombato, Saverio	A	IAC-12.A1.8.7
Ambesi-Impiombato, Francesco Saverio	A	IAC-12.A1.7.2
Ambrosius, Boudewijn	CA	IAC-12.A3.2B.8
Amedu, Joy	A	IAC-12.C4.3.15
Amin, Muhammad	CA	IAC-12.B2.5.7
Aminaei, Amin	A	IAC-12.A3.2C.8
Aminou, Donny M.A.	CA	IAC-12.B1.1.1
Amiri, Sarah	CA	IAC-12.B4.1.2
Amiri, Sarah	CA	IAC-12.E1.5.4
Ampatzoglou, Andreas	CA	IAC-12.C2.4.18
Amrouni-Keiling, Antoine	A	IAC-12.D4.4.6
Ananasso, Cristina	CA	IAC-12.E1.5.6
Anbar, Ariel	CA	IAC-12.E1.3.1
Andersen, Geoff	CA	IAC-12.B4.6B.1
Anderson, Allison	CA	IAC-12.A1.6.8
Anderson, Eric	CA	IAC-12.E3.2.3
Anderson, Eric	A	IAC-12.E5.5B.2
Anderson, Pamela	A	IAC-12.B1.2.16
Anderson, Rodney	A	IAC-12.C1.7.4
Andre, Thibaut	CA	IAC-12.A1.8.2
Andrenucci, Mariano	CA	IAC-12.C4.4.1
Andrenucci, Mariano	CA	IAC-12.C4.4.7
Andrenucci, Mariano	CA	IAC-12.C4.4.22
Andrenucci, Mariano	CA	IAC-12.C4.4.23
Andrenucci, Mariano	CA	IAC-12.C4.4.24
Andrenucci, Mariano	CA	IAC-12.C4.4.25
Andrenucci, Mariano	CA	IAC-12.C4.4.27
Andrenucci, Mariano	CA	IAC-12.D1.4.7
Andrenucci, Mariano	CA	IAC-12.A5.4.5
Andrews, Jason	A	IAC-12.B4.5.5
Andrews, Jason	CA	IAC-12.B4.5.8
Andreychuk, Peter	CA	IAC-12.A1.6.2
Angadi, Chetan	A	IAC-12.E2.2.3
Angadi, Chetan	CA	IAC-12.B4.7A.3
Angadi, Chetan	CA	IAC-12.B4.6A.9
Angelini, Emma	CA	IAC-12.C2.8.1
Angelino, Enrico	CA	IAC-12.D2.6.1
Angell, Dustin	CA	IAC-12.E1.9.5
Angelone, Marcello	CA	IAC-12.C4.2.1
Angli, Nil	A	IAC-12.B4.4.6
Angrilli, Alessandro	A	IAC-12.B3.5.5
Angrisano, Antonio	CA	IAC-12.B2.6.6
Anisimov, Artiom	CA	IAC-12.E7.1.3
Anjaneyulu, K V V S S S R	CA	IAC-12.B6.3.11
Ankersen, Finn	CA	IAC-12.C1.2.2
Ankersen, Finn	CA	IAC-12.D1.6.3
Anklam, Marcel	A	IAC-12.D1.6.2
Anlong, Gong	A	IAC-12.C2.7.20
Annadurai, Mylswamy	A	IAC-12.A3.2A.1
Annadurai, Mylswamy	A	IAC-12.A3.2B.3
Annovazzi, Adriano	CA	IAC-12.C4.2.16
Ansalone, Luigi	CA	IAC-12.A6.1.20
Ansdell, Megan	A	IAC-12.E8.1.4
Anselmi, Alberto	CA	IAC-12.C1.8.2
Anselmo, Luciano	A	IAC-12.A6.4.9
Antonini, Fabio	CA	IAC-12.C3.4.8
Antoniou, Natassa	CA	IAC-12.E3.2.1
Antoniou, Natassa	A	IAC-12.E3.4.3
Aoki, Kotaro	CA	IAC-12.A5.4.9
Aoki, Setsuko	A	IAC-12.E7.3.9
Aoki, Yuhei	CA	IAC-12.D1.6.8
Aoyama, Kazuhiro	CA	IAC-12.C2.6.8
Aoyama, Kazuhiro	CA	IAC-12.D5.3.11
Apel, Uwe	A	IAC-12.D2.4.5
Appel, Leonid	A	IAC-12.C1.5.3
Arakawa, Yoshihiro	CA	IAC-12.C4.8.10
Arakcheev, Dmitry	A	IAC-12.A1.6.13
Aras, Shravan	CA	IAC-12.B4.1.8
Arasu, Yezhil	CA	IAC-12.C2.1.12
Arasu, Yezhil	CA	IAC-12.C2.7.10
Arboleda, Julieta	CA	IAC-12.E1.2.6
Ardaens, Jean-Sébastien	A	IAC-12.B4.7B.4
Ardito, Alessandro	CA	IAC-12.B2.3.8
Arena, Carmen	A	IAC-12.A1.4.14
Arena, Carmen	CA	IAC-12.A1.4.20
Arifin, Bustanul	A	IAC-12.B5.1.2
Arikawa, Yoshihisa	CA	IAC-12.C3.1.8
Ariyoshi, Yuya	A	IAC-12.A6.5.1
Armbrecht, Gabriele	CA	IAC-12.A1.2.16
Armbrecht, Gabriele	CA	IAC-12.A1.2.17
Armellin, Roberto	CA	IAC-12.C1.1.1
Armellin, Roberto	CA	IAC-12.A6.2.2
Armellin, Roberto	CA	IAC-12.C1.2.12
Armellin, Roberto	CA	IAC-12.A3.4.20
Armellin, Roberto	A	IAC-12.A3.4.22
Armellin, Roberto	CA	IAC-12.C1.6.1
Arnaud, Landragin	CA	IAC-12.A2.1.6
Arnaud, Landragin	CA	IAC-12.A2.1.13
Arnault, Anthony	CA	IAC-12.C4.8.7
Arney, Dale	A	IAC-12.D3.1.5
Arney, Dale	A	IAC-12.D2.4.8
Arney, Dale	CA	IAC-12.D3.2.3
Arnold, Steven	A	IAC-12.D3.4.2
ARNOUX, Caroline	A	IAC-12.D2.2.7
Aronne, Giovanna	CA	IAC-12.A3.2D.36
Aronne, Giovanna	CA	IAC-12.A1.4.14
Aronne, Giovanna	CA	IAC-12.A1.4.20
Arora, Shitij	A	IAC-12.C2.7.10
Arpesi, Pier Giorgio	CA	IAC-12.C3.2.3
Arrigo, Gabriella	CA	IAC-12.E1.5.6
Arroyo-Ramírez, Lisandra	CA	IAC-12.A2.3.16
Artis, David	CA	IAC-12.A3.2C.1
Arturo, De Lillis	CA	IAC-12.D2.4.1
Arturo, De Lillis	CA	IAC-12.D2.5.4
Aru, Antonio	CA	IAC-12.B2.3.2
Aru, Antonio	CA	IAC-12.B2.3.3
Arvidson, R. E.	CA	IAC-12.A3.3A.7
Asai, Toshio	CA	IAC-12.B2.4.4
Aschbacher, Josef	CA	IAC-12.B1.6.4
Ascolese, Raffaele	CA	IAC-12.A2.5.6
Ascolese, Raffaele	CA	IAC-12.B4.6A.7
Ashida, Yasumasa	A	IAC-12.C4.8.11
Ashkar, Cameron	A	IAC-12.D4.4.9
Aslan, Alim Rustem	A	IAC-12.B4.6B.12
Aslan, Alim Rüstem	A	IAC-12.C3.4.9
Aslanov, Vladimir S.	A	IAC-12.D4.3.9
Asmaro, Deyar	CA	IAC-12.A1.1.7
Aso, Shigeru	CA	IAC-12.C4.2.26
Aso, Shigeru	A	IAC-12.B4.3.6
Aso, Shigeru	CA	IAC-12.C4.5.7
Aso, Shigeru	A	IAC-12.B4.6B.2
Asproulis, Nikolaos	CA	IAC-12.C2.8.10
ASTER, Scientific and Engineering Payload Team -	CA	IAC-12.A3.4.15
Astorg, Jean-Marc	A	IAC-12.D2.2.6
Atomi, Tomoaki	CA	IAC-12.A1.3.3
Atomi, Yoriko	CA	IAC-12.A1.3.3
Atxaga, Garbiñe	A	IAC-12.C2.6.6

** As of 28 August 2012*

B

Name	Role	Paper
B M, Dayanand	A	IAC-12.C3.4.7
B.K, Venkataramu	CA	IAC-12.C4.4.5
Baba, Mitsuhisa	A	IAC-12.C1.8.10
Baburaj, Abhijit	A	IAC-12.A1.4.15
Babuscia, Alessandra	A	IAC-12.B2.1.8
Babuscia, Alessandra	A	IAC-12.E1.3.9
Babuscia, Alessandra	A	IAC-12.B4.6B.8
Babuscia, Alessandra	CA	IAC-12.B4.6B.10
Bachtel, Rick	CA	IAC-12.D2.8.10
Bade, Anette	CA	IAC-12.B6.3.5
Baevsky, Roman	CA	IAC-12.A1.2.2
Baevsky, Roman	CA	IAC-12.A1.2.18
Baevsky, Roman	CA	IAC-12.A1.2.22
Baevsky, Roman	A	IAC-12.A1.2.23
Bagaglini, Flaviano	CA	IAC-12.B1.4.1
Baglioni, Pietro	CA	IAC-12.A3.3A.3
Baglioni, Pietro	CA	IAC-12.A3.3C.3
Bai, Mingsheng	CA	IAC-12.C2.6.3
Bai, Xianzong	A	IAC-12.A6.2.19
Bainum, Peter M.	CA	IAC-12.C2.3.7
Baiocco, Paolo	CA	IAC-12.D2.4.3
Baize, Lionel	A	IAC-12.D5.2.2
Bakhtiari Mojaz, Sahar	CA	IAC-12.E1.9.8
Balado, Ana	CA	IAC-12.A3.5.15
Balagurin, Oleksii	CA	IAC-12.B4.3.2
Balazs, Laszlo	CA	IAC-12.A1.1.2
Baldesi, Gianluigi	CA	IAC-12.C2.2.6
Baldesi, Gianluigi	CA	IAC-12.C2.2.8
Balducci, Paolo	CA	IAC-12.C4.4.23
Balduccini, Mauro	CA	IAC-12.D2.5.4
Balicki, Wlodzimierz	CA	IAC-12.C4.8.3
Balinov, Spas	CA	IAC-12.B4.5.6
Ballard, Benjamin	A	IAC-12.A3.2C.1
Bals, Bernhard	A	IAC-12.D5.1.12
Baltopoulos, Athanasios	A	IAC-12.C2.4.18
Baltopoulos, Athanasios	CA	IAC-12.C2.8.6
Balucani, Marco	CA	IAC-12.C4.6.9
Baluch, Abrar-Ul-Haq Khan	A	IAC-12.A6.3.9
Baluch, Abrar-Ul-Haq Khan	A	IAC-12.C2.7.5
Bandini, Flavio	CA	IAC-12.B3.4-B6.5.4
Bang, Hyochoong	CA	IAC-12.C1.5.8
Bang, Hyochoong	CA	IAC-12.C1.9.2
Bang cheng, Ai	A	IAC-12.C2.4.17
Bangade, Saurabh	CA	IAC-12.E2.3.2
Bank, Cristian	A	IAC-12.E7.7-B3.8.1
Bank, Cristian	A	IAC-12.E7.7-B3.8.2
Bankov, Nikolay	CA	IAC-12.A1.4.9
Bankov, Nikolay	CA	IAC-12.A1.4.17
Bannova, Olga	A	IAC-12.E5.3.1
Bannova, Olga	A	IAC-12.E1.6.2
Bansmann, Paul-Martin	CA	IAC-12.A1.2.16
Baoyin, Hexi	CA	IAC-12.A5.1.10
Baoyin, Hexi	CA	IAC-12.C1.7.13
Baqué, Mickael	CA	IAC-12.A1.5.9
Baranov, Victor	CA	IAC-12.A1.7.12
Barbagallo, Daniele	CA	IAC-12.C2.1.13
Barbagallo, Daniele	A	IAC-12.D2.6.5
Barbagallo, Daniele	A	IAC-12.D2.6.6
Barbaglio, Francesco	A	IAC-12.B2.3.8
Barbera, Daniele	CA	IAC-12.C2.2.12
Barbera, Orazio	CA	IAC-12.C3.3.5
Barbieri, Giancarlo	CA	IAC-12.A1.6.3
Barczyk, Simon	CA	IAC-12.A1.6.10
Barfoot, Timothy	CA	IAC-12.A3.3B.5
Barfoot, Timothy	CA	IAC-12.A5.3-B3.6.3
Barfoot, Timothy	CA	IAC-12.A3.2C.2
Barker, Edwin S.	CA	IAC-12.A6.1.6
Barletta, Francesco	CA	IAC-12.A3.3C.5
Barmin, Igor	CA	IAC-12.D5.1.10
Barnet, Mark	CA	IAC-12.A3.3B.5
Barnet, Mark	CA	IAC-12.A3.2C.2
Barnett, Milan	A	IAC-12.C2.1.18
Baronti, Andrea	CA	IAC-12.A3.3C.4
Barrabés, Esther	CA	IAC-12.C1.6.9
Barrena, Valentin	A	IAC-12.D1.6.3
Barrera, David	CA	IAC-12.D1.2.9
Barrera, Francesco Paolo	CA	IAC-12.C2.1.11
Barreteau, Renaud	CA	IAC-12.D2.6.4
Barrick, Bradley	CA	IAC-12.B1.5.9
Barrington-Brown, James	CA	IAC-12.B4.6B.7
Bartkowiak, Hubert	CA	IAC-12.E3.4.5
Bartkowiak, Hubert	CA	IAC-12.E1.6.6
Bartoccini, Daniele	CA	IAC-12.C2.1.1
Bartoccini, Daniele	CA	IAC-12.C2.1.2
Barton, Andrew	CA	IAC-12.E6.2.8
Barucci, Antonella	CA	IAC-12.A3.4.9
Bas, Mustafa Erdem	A	IAC-12.C3.4.9
Bash, Yariv	CA	IAC-12.B4.8.6
Bashir, Ahmad	CA	IAC-12.C2.4.13
Basile, Luciano	CA	IAC-12.D2.6.1
Baskaya, Elgiz	CA	IAC-12.B4.6B.5
Basner, Mathias	A	IAC-12.A1.1.5
Bassaler, Pierre	CA	IAC-12.B1.2.12
Bassler, Julie	CA	IAC-12.A3.2C.1
Bastida Virgili, Benjamin	A	IAC-12.A6.2.17
Bastide, Frédéric	CA	IAC-12.E3.1.2
Baston Canosa, Cesar	CA	IAC-12.B5.1.1
Bastón Canosa, César	CA	IAC-12.B5.1.3
Batonneau, Yann	CA	IAC-12.B4.6A.8
Battaglia, Giuliano	CA	IAC-12.C2.6.5
Battagliere, Maria Libera	A	IAC-12.B1.5.12
Battagliere, Maria Libera	CA	IAC-12.B1.6.7
Battat, Jonathan	CA	IAC-12.A5.4.1
Battazza, Fabrizio	A	IAC-12.B1.2.8
Battista, Francesco	CA	IAC-12.C4.3.4
Battisti, Alberto	CA	IAC-12.B2.6.1
Battistini, Simone	CA	IAC-12.C1.3.7
Battler, Melissa M.	A	IAC-12.B3.7.8
Bauder, Uwe	CA	IAC-12.A3.3C.11
Bauer, Christophe	A	IAC-12.D2.2.5
Bauer, Waldemar	A	IAC-12.A6.3.10
Baumstark-Khan, Christa	CA	IAC-12.A1.4.5
Bausch, Lars	CA	IAC-12.E5.1.15
Baxter-Jones, Adam	CA	IAC-12.A1.3.13
Bayandor, Javid	CA	IAC-12.A6.3.8
Baydaroglu, Yasemin	CA	IAC-12.E1.6.4
Bayle, Olivier	CA	IAC-12.A3.3A.4
Bayle, Olivier	CA	IAC-12.A3.3C.5
Bazarov, Vladimir	A	IAC-12.C4.1.4
Beauchamp, Marc	CA	IAC-12.A5.3-B3.6.3
Beaudry, Catherine	CA	IAC-12.E5.1.8
Beaufumé, Eric	CA	IAC-12.B1.2.4
Becher, Klaus	A	IAC-12.B5.2.6
Beck, Beth	A	IAC-12.E1.6.9
Beck, Luis	CA	IAC-12.A1.8.5
Beck, Pierre	CA	IAC-12.A3.5.8
Becker, Kate	A	IAC-12.E3.1.12
Becker, Kate	A	IAC-12.E3.2.5
Beckert, Uwe	CA	IAC-12.E5.1.15
Becklake, John	CA	IAC-12.E4.2.4
Becnel, Eric	A	IAC-12.A2.2.9
Becnel, Mark	A	IAC-12.E4.2.10
Becnel, Mark	CA	IAC-12.E1.7.10
Bedini, Peter D.	CA	IAC-12.C1.5.6
Bedini, Peter D.	CA	IAC-12.A3.5.1
Beghella Bartoli, Simone	CA	IAC-12.E2.3.3
Belavy, Daniel	A	IAC-12.A1.2.8
Belavy, Daniel	A	IAC-12.A1.2.16
Belavy, Daniel	A	IAC-12.A1.2.17
Belavy, Daniel	CA	IAC-12.A1.2.20
Belbis, Olivier	CA	IAC-12.B3.4-B6.5.8
Belikov, Vladimir	CA	IAC-12.D3.1.10
Belingheri, Paola	A	IAC-12.E1.5.16
Bell III, J.F.	CA	IAC-12.A3.3A.17
Beller, Gisela	CA	IAC-12.A1.2.8
Bellido, Eduardo	CA	IAC-12.A6.5.29
Bello, Fabio	A	IAC-12.B6.2.4
Bellodi, Marcelo	CA	IAC-12.A1.7.8
Bellomo, Alessandro	A	IAC-12.B2.1.11
Bellomo, Alessandro	CA	IAC-12.B3.5.5
Bellomo, Alessandro	CA	IAC-12.A2.7.3
Belloni, Marco	A	IAC-12.B2.6.1
Belluco, Maurizio	CA	IAC-12.A3.2D.29
Belokonov, Igor V.	CA	IAC-12.A6.5.8
Belokonov, Igor V.	A	IAC-12.B2.5.9
Belyaev, Mikhail Yu.	A	IAC-12.B3.5.7
Belz, Stefan	CA	IAC-12.A1.6.4
Belz, Stefan	A	IAC-12.B3.7.13
Ben-Naim, Dror	CA	IAC-12.E1.3.1
Benaroya, Haym	CA	IAC-12.A5.1.7
Benassai, Mario	CA	IAC-12.B3.5.5
Benassai, Mario	CA	IAC-12.A1.8.7
Benchenafi, Romain	CA	IAC-12.A5.1.2
Benghin, Victor	CA	IAC-12.A1.4.17
Bennell, Katherine	CA	IAC-12.A6.5.18
Bennest, John	CA	IAC-12.B1.3.5
Bennet, Derek	CA	IAC-12.D3.3.7
Bentum, Mark	A	IAC-12.B4.2.6
Bentum, Mark	CA	IAC-12.B2.3.5
Bentum, Mark	CA	IAC-12.B2.5.2
Bentum, Mark	CA	IAC-12.B2.6.10
Beretta, Simone	CA	IAC-12.B2.6.1
BERGEON, Nathalie	A	IAC-12.A2.6.7
Berger, Ingmar	CA	IAC-12.A5.3-B3.6.1
Berger, Thomas	CA	IAC-12.A1.4.5
Berghmans, David	CA	IAC-12.B4.3.1
Berglund, Michael	A	IAC-12.D2.8.5
Bergmann, Michael	CA	IAC-12.B4.1.11
Bergmann, Michael	A	IAC-12.B2.4.7
Bergstue, Grant	CA	IAC-12.D4.1.8
Bergstue, Grant	A	IAC-12.C4.6.6
Bergstue, Grant	CA	IAC-12.A6.7.6
BERNARD, Marc	A	IAC-12.B1.2.5
Bernardi, Fabrizio	CA	IAC-12.A6.1.18
Bernat, Marine	CA	IAC-12.E1.7.11
Bernelli-Zazzera, Franco	CA	IAC-12.A6.2.2
Bernelli-Zazzera, Franco	CA	IAC-12.C1.4.3
Bernelli-Zazzera, Franco	CA	IAC-12.A3.4.18
Bernelli-Zazzera, Franco	CA	IAC-12.A3.4.20
Bernelli-Zazzera, Franco	CA	IAC-12.A3.4.22
Bersenev, Evgeny	CA	IAC-12.A1.2.23
Berseneva, Azaliya	CA	IAC-12.A1.2.23
Bertachini De Almeida Prado, Antonio Fernando	CA	IAC-12.A3.4.21
Bertacin, Roberto	A	IAC-12.C4.2.16
Berthier, Audrey	CA	IAC-12.E1.7.11
Bertolotto, Delfina	A	IAC-12.B3.1.7
Bertolotto, Delfina	CA	IAC-12.A2.7.3
Bertrand, Sylvain	CA	IAC-12.D1.3.1
Berube, Andrew	CA	IAC-12.C1.2.13
Betelin, Vladimir	CA	IAC-12.A2.2.4
Bettanini, Carlo	CA	IAC-12.C2.2.6
Bettanini, Carlo	CA	IAC-12.A3.3C.1
Betters, Chris	CA	IAC-12.B4.2.9
Betti, Barbara	CA	IAC-12.C4.6.9
Betts, Bruce	A	IAC-12.A1.5.5
Betts, Bruce	CA	IAC-12.B4.8.1
Bewick, Russell	CA	IAC-12.E2.3.7
Beysens, Daniel	CA	IAC-12.A2.6.9
Bhandari, Vinayak	CA	IAC-12.E7.1.24
Bhandari, Vinayak	CA	IAC-12.A3.3A.8
Bhattarai, Suresh	A	IAC-12.E1.7.7
Bialais, Valentin	CA	IAC-12.A5.3-B3.6.5
Biamonti, Davide	CA	IAC-12.A6.2.3
Bianchi, Stefano	A	IAC-12.D2.1.1
Bianchi, Stefano	CA	IAC-12.D2.2.2
Bianchi, Sébastien	CA	IAC-12.D2.5.1
Bianchini Fulindi, Jonas	A	IAC-12.D2.7.10
Bianconi, Giovanna	CA	IAC-12.A1.6.19
Bianconi, Giovanna	CA	IAC-12.A1.8.10
Bibring, Jean-Pierre	A	IAC-12.A3.3B.1
Bibring, Jean-Pierre	A	IAC-12.A1.5.4
Biczel, Piotr	CA	IAC-12.C4.4.28
Biddington, Brett	A	IAC-12.E3.1.8
Biddy, Chris	CA	IAC-12.B4.8.1
Bidner, Felix	CA	IAC-12.E2.3.1
Biele, Jens	A	IAC-12.A3.4.2
Biele, Jens	CA	IAC-12.A3.4.7
Biggs, James	CA	IAC-12.C1.4.2
Biggs, James	CA	IAC-12.C1.7.6
Biggs, James	CA	IAC-12.C1.9.7
Bigliardi, Barbara	CA	IAC-12.E5.1.2
Bignon, Isabel	CA	IAC-12.D3.4.13
Billi, Daniela	A	IAC-12.A1.5.9
BILLIA, Bernard	CA	IAC-12.A2.3.6
Billia, Bernard	CA	IAC-12.A2.6.7
Billig, Gerhard	CA	IAC-12.B2.1.11
Bilodeau, Glen	CA	IAC-12.D3.3.2
Birrane, Edward	A	IAC-12.B2.1.1
Birrane, Edward	A	IAC-12.B6.2.18
Biscani, Francesco	CA	IAC-12.C1.7.6
Bischof, Bernd	CA	IAC-12.A6.5.18
Bischof, Bernd	A	IAC-12.A5.4.7
Bjelde, Brian	A	IAC-12.D2.9-D6.2.2
Blaber, Elizabeth	A	IAC-12.A1.7.3
Blaber, Phillippa	A	IAC-12.E2.2.1
Black, Jonathan	A	IAC-12.E1.4.4
Blagov, Victor	CA	IAC-12.B3.4-B6.5.3
Blanc, Stephane	CA	IAC-12.A1.2.11
Blancquaert, Thierry	CA	IAC-12.A3.3A.4
Bland-Hawthorn, Joss	CA	IAC-12.B4.2.9
Blott, Richard	A	IAC-12.C4.4.9
Blott, Richard	CA	IAC-12.E1.6.11
Blott, Richard	A	IAC-12.C4.7-C3.5.3
Blottner, Dieter	A	IAC-12.A1.2.24
Blum, Christopher	CA	IAC-12.E2.3.4
Blum, Jürgen	CA	IAC-12.A3.4.2
Blythe, Paul	CA	IAC-12.B1.1.1
Bobe, Leonid	A	IAC-12.A1.6.2
Boccia, Valentina	A	IAC-12.C1.4.7
Bocciarelli, Marco	CA	IAC-12.B4.5.10
Bochenkova, Anna	CA	IAC-12.A1.7.12
Bode, Willem	CA	IAC-12.E1.2.2
Bodemann, Christian D.	A	IAC-12.B6.3.4
Bodemann, Christian D.	A	IAC-12.B4.3.8
Bodin, Per	A	IAC-12.C1.3.1
Bodnár, László	CA	IAC-12.E1.7.6
Boehme, Gisela	CA	IAC-12.A1.2.16
Boeldieu, Léonard	A	IAC-12.A5.2.3
Boers, John	CA	IAC-12.B5.1.4
Boeva, John-John	CA	IAC-12.C4.2.28
Boggiatto, Dario	CA	IAC-12.D3.2.1
Bohe, Zhou	CA	IAC-12.B6.3.7
Bohrer, Rubens Zolar Gehlen	CA	IAC-12.B4.1.5
Boiocchi, Matteo	CA	IAC-12.C4.2.25
Boiocchi, Matteo	CA	IAC-12.C4.2.27
Boisard, Olivier	CA	IAC-12.E5.2.1
Boissin, Benoit	CA	IAC-12.B1.2.5
Boivin, Alexandre	CA	IAC-12.A3.3A.17
Bolea, Juan	CA	IAC-12.A1.2.1
Bolea Alamanac, Ana	CA	IAC-12.B4.4.1
Bolmont, Benoît	CA	IAC-12.A1.1.21
Bolmont, Benoît	CA	IAC-12.A1.1.22
Bombaci, Ornella	A	IAC-12.A3.3C.5
Bond, Steve	CA	IAC-12.D6.1.2
Bondarenko, Sergiy	CA	IAC-12.C4.3.11
Bonetti, Davide	A	IAC-12.D2.3.5
Bonev, Boris	CA	IAC-12.E1.6.8
Bongs, Kai	CA	IAC-12.A2.1.6
Bongs, Kai	CA	IAC-12.A2.1.13
Bonillo Rey, Sandra	CA	IAC-12.B4.8.7
Bonin, Grant	A	IAC-12.B2.3.4
Bonin, Grant	CA	IAC-12.C3.4.11
Bonnal, Christophe	CA	IAC-12.A6.5.8
Bonnal, Christophe	A	IAC-12.A6.7.1
Bonneau, Celine	CA	IAC-12.C1.8.8
Bonnema, Abe	CA	IAC-12.B4.5.8

Boonstra, Albert-Jan	CA	IAC-12.A3.2C.8
Borders, Kareen	A	IAC-12.E1.2.11
Borders, Kyla	CA	IAC-12.E1.2.11
Borggräfe, Andreas	A	IAC-12.C1.9.10
Borgo, Federico	CA	IAC-12.C1.9.5
Borisenko, Andrey	CA	IAC-12.A2.6.6
Borla, Oscar	CA	IAC-12.A1.4.13
Born, George	CA	IAC-12.E1.4.5
Bornas, Nicholas	CA	IAC-12.B3.4-B6.5.8
Borowitz, Mariel	A	IAC-12.E1.5.1
Borrelli, Salvatore	CA	IAC-12.C4.1.1
Bos, Jelte	CA	IAC-12.A1.8.13
Bost, Nicolas	CA	IAC-12.A1.5.1
Botha, Marie	A	IAC-12.E1.5.12
Boudreaux, Mark	CA	IAC-12.A6.7.5
Bouilly, Jean-Marc	CA	IAC-12.A3.3A.20
Boulanger, Damien	CA	IAC-12.B1.3.4
Bourbonniere, Michel	A	IAC-12.E7.3.6
Bourgoing, Alexis	CA	IAC-12.A3.5.14
Boury, Didier	A	IAC-12.C4.2.2
Boury, Didier	CA	IAC-12.C4.2.3
Bousquet, Pierre W.	A	IAC-12.A3.3B.6
Boussalis, Helen	CA	IAC-12.C2.5.10
Boussalis, Helen	CA	IAC-12.A3.5.12
Bouvier, Francis	CA	IAC-12.C4.9.1
Bouwmeester, Jasper	CA	IAC-12.B4.7B.5
Bouwmeester, Jasper	CA	IAC-12.C4.6.2
Bouyer, Philippe	CA	IAC-12.A2.1.6
Bouyer, Philippe	CA	IAC-12.A2.1.13
Bove, Antonio	CA	IAC-12.B5.1.7
Boy, Guy	A	IAC-12.E1.6.4
Bozic, Ognjan	A	IAC-12.C4.2.8
Bozic, Ognjan	CA	IAC-12.C4.2.21
Brady, Joseph	CA	IAC-12.A1.1.11
Brady, Ken	CA	IAC-12.A1.8.4
Braithwaite, Timothy	CA	IAC-12.B3.1.6
Brandt, Alexander	CA	IAC-12.D1.6.9
Branz, Francesco	A	IAC-12.D1.2.7
Braukhane, Andy	CA	IAC-12.D1.1.6
Braun, Markus	CA	IAC-12.A2.7.2
Braun, Vitali	A	IAC-12.A6.4.10
Braun, Vitali	CA	IAC-12.A6.5.3
Braxmaier, Claus	CA	IAC-12.A2.1.5
Braxmaier, Claus	A	IAC-12.A2.1.6
Braxmaier, Claus	CA	IAC-12.A2.1.13
Bremer, Stefanie	CA	IAC-12.A2.1.2
Bremm, Tiago	A	IAC-12.B1.3.12
Brenton, James	A	IAC-12.E3.2.4
Brenton, James	CA	IAC-12.B1.5.9
Breteau, Jérôme	CA	IAC-12.D2.5.2
Brett, Michael	CA	IAC-12.B2.3.4
Bridges, Christopher P.	CA	IAC-12.B4.6B.3
Bridges, Joel	CA	IAC-12.D2.8.7
Brikner, Natalya	A	IAC-12.C4.4.13
Brinley, Alaina	A	IAC-12.E5.1.4
Briskman, Robert D.	A	IAC-12.B2.4.1
Britt, Daniel	CA	IAC-12.D3.1.7
Broadway, Jeramie	CA	IAC-12.C4.7-C3.5.4
Brodsky, Yuval	A	IAC-12.E5.2.6
Brodsky, Yuval	CA	IAC-12.B5.1.2
Brondolo, Dino	CA	IAC-12.B3.4-B6.5.4
Brophy, John	A	IAC-12.A5.4.11
Brown, Craig	CA	IAC-12.A3.4.11
Brown, Julie	CA	IAC-12.A3.2C.5
Brown, Mallory	A	IAC-12.A3.2D.11
Brown, Patrick	CA	IAC-12.B4.2.4
Brown, Roy	CA	IAC-12.E2.3.7
Brucato, John Robert	CA	IAC-12.A3.4.9
Bruenjes, Bernhard	CA	IAC-12.D1.6.10
Bruna, Ondrej	CA	IAC-12.A3.1.9
Bruna, Ondrej	CA	IAC-12.B1.4.12
Bruni, Flavie	CA	IAC-12.C4.2.5
Bruno, Claudio	CA	IAC-12.D2.4.10
Bruno, Claudio	CA	IAC-12.E1.6.11
Bruno, Claudio	CA	IAC-12.C4.7-C3.5.3
Bruno, Dominique	CA	IAC-12.A2.4.2
Brusch, Stephan	CA	IAC-12.B1.5.1
Brutin, David	CA	IAC-12.A2.4.2
Bruzzi, Davide	A	IAC-12.B4.7A.4
Bruzzi, Davide	A	IAC-12.B4.5.10
Bruzzone, Lorenzo	A	IAC-12.A3.5.8
Bruzzone, Paula	CA	IAC-12.E1.9.1
Buchert, Melanie	A	IAC-12.A1.6.4
Buckland, Dan	A	IAC-12.A1.2.19
Buckley, Nicole	CA	IAC-12.B3.1.2
Budianu, Alex	CA	IAC-12.B2.3.5
Budianu, Alex	A	IAC-12.B2.5.2
Budnik, Sergey	CA	IAC-12.C2.7.3
Bueno dos Santos, Marcio	CA	IAC-12.C2.7.7
Buffenoir, François	CA	IAC-12.D2.6.4
Buist, Peter	CA	IAC-12.B2.6.10
Bukley, Angie	CA	IAC-12.E1.4.1
Bunkheila, Federico	A	IAC-12.B1.4.8
Buonomo, Roberta	CA	IAC-12.A1.6.3
Buralli, Bernard	CA	IAC-12.B1.3.10
Buravkova, Ludmila	A	IAC-12.A1.7.9
Burdanov, Anton	A	IAC-12.C2.7.2
Burdick, Garry	CA	IAC-12.D2.8.9
Burfeindt, Juergen	CA	IAC-12.A3.2B.5
Burger, Eduardo Escobar	CA	IAC-12.B4.1.5
Burgess, Luke	CA	IAC-12.D4.1.8
Burgess, Luke	CA	IAC-12.C4.6.6
Burgess, Luke	CA	IAC-12.A6.7.6
Burke, James	A	IAC-12.E5.2.4
Burke, James	A	IAC-12.B4.8.9
Burkhardt, Andrew	CA	IAC-12.A6.1.6
Burks, Richard	A	IAC-12.E7.3.4
Burnett, Carlos	CA	IAC-12.E1.2.2
Burns, Brendan	CA	IAC-12.A1.7.3
Burow, Kay	A	IAC-12.A2.3.1
Bursi, Alessandro	A	IAC-12.C2.1.13
Bursi, Alessandro	CA	IAC-12.C2.4.16
Bursi, Alessandro	CA	IAC-12.C2.9.5
Burton, Roland	A	IAC-12.C1.9.6
Busch, Stephan	CA	IAC-12.D1.2.4
Busquets, Jorgina	CA	IAC-12.A6.5.17
Bussolino, Luigi	A	IAC-12.E4.3A.1
Bussolino, Luigi	A	IAC-12.E4.3A.3
Bussu, Giancarlo	CA	IAC-12.A2.3.4
Buu, Chau	CA	IAC-12.B2.1.4
Buzuluk, Valentin	CA	IAC-12.D2.5.7
Buzzoni, Clelia Maria Giulia	CA	IAC-12.B3.5.5
Bérard, Caroline	CA	IAC-12.C1.1.6
Bérend, Nicolas	A	IAC-12.A6.2.1
Böhnhardt, Hermann	CA	IAC-12.A3.4.9

C

Name	Role	Paper
Caballero, Francisco	A	IAC-12.C1.2.7
Cabanas, Francisco	CA	IAC-12.B5.1.7
Cabrera, Carlos R.	CA	IAC-12.A2.3.16
Cabrera, Carlos R.	CA	IAC-12.C3.3.12
Cabrera, Carlos R.	CA	IAC-12.C3.3.15
Cabrera, Carlos R.	CA	IAC-12.A1.6.16
Cadenas, Raul	CA	IAC-12.C1.3.8
Caglianone, Alfonso	CA	IAC-12.A3.2D.10
Cahoy, Kerri	CA	IAC-12.E3.2.10
Cai, Guobiao	CA	IAC-12.C4.2.13
Cai, Guobiao	CA	IAC-12.C4.2.19
Cai, Guobiao	CA	IAC-12.C4.2.20
Cai, Guobiao	CA	IAC-12.C4.2.22
Cai, Guobiao	CA	IAC-12.C2.3.15
Caiani, Enrico Gianluca	A	IAC-12.A1.2.1
Caillet, Grégory	CA	IAC-12.A1.1.22
Cairns, Iver	CA	IAC-12.B4.2.9
Calado, Renato	CA	IAC-12.D1.6.5
Calamaio, Casey	A	IAC-12.B1.4.14
Calandrelli, Emily	A	IAC-12.E6.4-D4.2.3
Calcagni, Enrique	A	IAC-12.C4.4.19
Califano, Dario	CA	IAC-12.B1.3.8
Caliò, Elvira	CA	IAC-12.B1.6.8
Calle, Carlos	A	IAC-12.A3.2A.9
Calloway, Andrew B.	CA	IAC-12.C1.5.6
Caltagirone, Francesco	CA	IAC-12.B1.2.8
Caltagirone, Francesco	CA	IAC-12.B1.3.9
Caltagirone, Francesco	CA	IAC-12.B1.6.8
Camarri, Flavio	CA	IAC-12.D2.6.3
Campadelli, Simone	CA	IAC-12.C3.2.3
Campo, Monica	CA	IAC-12.C2.8.7
Cancedda, Ranieri	CA	IAC-12.A1.7.1
Canchal, Maria del Rosario	CA	IAC-12.A3.3C.2
Candel, Danielle	CA	IAC-12.E8.1.1
Candini, Gian Paolo	CA	IAC-12.D1.1.12
Candini, Gian Paolo	CA	IAC-12.C4.6.9
Candini, Gian Paolo	CA	IAC-12.E1.9.9
Canganella, Francesco	CA	IAC-12.A1.6.10
Canganella, Francesco	A	IAC-12.A1.6.19
Canganella, Francesco	A	IAC-12.A1.8.10
Cannella, Matthew	CA	IAC-12.E1.1.6
Cannella, Matthew	A	IAC-12.E2.3.6
Cannelli, Federico	CA	IAC-12.C4.4.23
Cano, Juan L.	CA	IAC-12.A3.4.11
Cano Argamasilla, Raul	CA	IAC-12.D5.2.3
Cano Argamasilla, Raul	CA	IAC-12.D5.2.4
Cano Argamasilla, Raul	A	IAC-12.D5.2.10
Cantiello, Ilario	A	IAC-12.D1.3.11
Cantone, Claudio	A	IAC-12.B2.6.3
Cantrell, James	CA	IAC-12.B4.8.1
Cantwell, Brian	CA	IAC-12.C4.2.11
Cantwell, Brian	CA	IAC-12.C4.2.14
Cantwell, Brian	CA	IAC-12.A3.3A.14
Canuto, Enrico	A	IAC-12.A3.2D.34
Canuto, Enrico	A	IAC-12.A3.2D.35
Cao, Giacomo	A	IAC-12.D3.3.9
Cao, Haiyi	A	IAC-12.B1.3.3
Cao, Jianfeng	CA	IAC-12.B3.7.7
Cao, Jinbin	CA	IAC-12.D3.4.6
Cao, Tao	A	IAC-12.C1.4.11
Cao, Xibin	CA	IAC-12.B4.4.11
Cao, Yu	A	IAC-12.E4.1.1
Capece, Fabio	A	IAC-12.B4.4.4
Capitani, Donatella	CA	IAC-12.A3.3C.4
Capolongo, Emiliano	CA	IAC-12.B2.6.9
Cappaert, Jeroen	A	IAC-12.C2.7.8
Cappaert, Jeroen	CA	IAC-12.D4.4.6
Cappelletti, Chantal	CA	IAC-12.A6.1.20
Cappelletti, Chantal	A	IAC-12.A6.4.14
Cappelletti, Chantal	CA	IAC-12.A1.4.18
Cappelletti, Chantal	A	IAC-12.A1.7.7
Cappelletti, Chantal	CA	IAC-12.B4.5.7
Capuano, Giuseppe	CA	IAC-12.B3.3.11
Capuano, Giuseppe	CA	IAC-12.A2.5.6
Capuano, Giuseppe	A	IAC-12.B4.6A.7
Capuano, Giuseppe	CA	IAC-12.B4.8.3
Capuano, Maurizio	A	IAC-12.A3.3A.4
Caputo, Gabriella	CA	IAC-12.C2.9.5
Caputo, Laura	CA	IAC-12.C2.9.5
Carandente, Valerio	CA	IAC-12.D2.3.1
Carandente, Valerio	CA	IAC-12.C2.4.2
Carbognani, Franco	CA	IAC-12.E5.2.6
Cardesin Moinelo, Alejandro	CA	IAC-12.A3.5.19
Cardesin Moinelo, Alejandro	A	IAC-12.D3.4.4
Cardile, Diego	A	IAC-12.D1.6.11
Cardona, Tommaso	CA	IAC-12.A6.1.3
Cardoso, Elaine Maria	CA	IAC-12.A2.2.7
Carducci, Franco	A	IAC-12.D2.7.1
Carle, Florian	CA	IAC-12.A2.4.2
Carmen, Christina	A	IAC-12.E1.2.1
Carmen, Christina L.	CA	IAC-12.A3.2D.11
Carmen, Christina L.	CA	IAC-12.E7.3.4
Carmen, Christina L.	CA	IAC-12.A5.3-B3.6.7
Carmicino, Carmine	A	IAC-12.C4.9.3
Carnevale, Flavia	CA	IAC-12.B1.4.2
Carotenuto, Luigi	CA	IAC-12.D5.2.11
Carotenuto, Luigi	A	IAC-12.E1.7.11
Carotenuto, Luigi	CA	IAC-12.B5.2.10
Carpanelli, Elena	A	IAC-12.E7.1.6
Carpena-Nunez, Jennifer	A	IAC-12.C2.8.3
Carpenter, James	CA	IAC-12.A3.1.1
Carpenter, James	A	IAC-12.A3.2D.18
Carpenter, James	CA	IAC-12.A3.2B.4
Carpenter, Kalind	A	IAC-12.C4.5.6
Carpenter, Sandra	CA	IAC-12.A1.1.16
CARPINE, Anne	A	IAC-12.C2.2.5
Carr, Christopher	CA	IAC-12.A1.6.6
Carrasco, Jose Antonio	CA	IAC-12.D1.2.9
Carrasco, Jose Antonio	CA	IAC-12.A3.2D.13
Carrasco, Jose Antonio	CA	IAC-12.B4.7A.6
Carrigan, Richard	A	IAC-12.A4.1.9
Carroll, Andrea	CA	IAC-12.B4.8.9
Cartmell, Matthew	CA	IAC-12.A2.3.15
Carvajal, Johan	CA	IAC-12.B4.1.7
Casagrande, Henrique	A	IAC-12.E8.1.3
Casalino, Giuseppe	A	IAC-12.A5.3-B3.6.6
Casasanto, Valerie Anne	A	IAC-12.E1.9.5
Casonato, Gianni	CA	IAC-12.B1.1.4
Casonato, Gianni	A	IAC-12.B1.4.1
Casonato, Gianni	CA	IAC-12.B1.4.2
Casonato, Gianni	A	IAC-12.B1.6.8
Casonato, Gianni	A	IAC-12.B6.2.7
Cassaro, Pietro	CA	IAC-12.A4.1.5
Cassaro, Pietro	CA	IAC-12.A4.1.6
Cassi, Carlo	A	IAC-12.A3.3A.3
Cassibry, Jason	CA	IAC-12.C4.7-C3.5.5
Cassibry, Jason	CA	IAC-12.C4.7-C3.5.7
Cassibry, Jason	CA	IAC-12.C4.7-C3.5.12
Cassibry, Jason	CA	IAC-12.C4.8.4
Castagnolo, Dario	A	IAC-12.B3.4-B6.5.9
Castagnolo, Dario	CA	IAC-12.A1.6.19
Castagnolo, Dario	CA	IAC-12.A2.7.3
Castagnolo, Dario	CA	IAC-12.A2.7.9
Castagnolo, Dario	A	IAC-12.B6.1.5
Castaings, Thibaut	A	IAC-12.A6.1.13
Castejon Garcia, Ezio	CA	IAC-12.C2.7.7
Castiglione, Luigi	A	IAC-12.B3.3.12
Catalano, Pietro	CA	IAC-12.D1.3.6
Catalano, Pietro	CA	IAC-12.A3.3A.19
Catalano, Pietro	CA	IAC-12.A3.5.14
Catalano Sgrosso, Gabriella	A	IAC-12.E7.2.7
Cataldi, Alberto	CA	IAC-12.A1.3.1
Catini, Alexandro	CA	IAC-12.A2.7.9
Caujolle, Jean-Michel	CA	IAC-12.B1.6.3
Cavallini, Enrico	A	IAC-12.C4.9.2
Cavrois, Bruno	CA	IAC-12.C1.2.1
Ceccaroni, Marta	A	IAC-12.C1.7.6
Cecchini, Andrea	CA	IAC-12.A6.2.11
Cecchini, Andrea	CA	IAC-12.B1.3.9
Cecchini, Andrea	CA	IAC-12.B1.4.2
Cecere, Anselmo	CA	IAC-12.A2.3.9
Cefola, Paul	CA	IAC-12.C1.6.12
Cefola, Paul	A	IAC-12.C1.6.13
Cefola, Paul	CA	IAC-12.C1.7.3
Celidonio, Giovanni	CA	IAC-12.A6.2.11
Celton, Elisabeth	CA	IAC-12.E1.1.3
Celton, Elisabeth	CA	IAC-12.B3.3.11
Cepollina, Frank	CA	IAC-12.A5.3-B3.6.4
Cergna, Paolo	CA	IAC-12.B3.4-B6.5.5
Ceriello, Antonio	CA	IAC-12.B6.1.5
Ceriello, Antonio	CA	IAC-12.B5.2.10
Ceriotti, Matteo	CA	IAC-12.C1.1.11
Ceriotti, Matteo	CA	IAC-12.C3.1.9
Ceriotti, Matteo	CA	IAC-12.C1.4.2
Ceriotti, Matteo	A	IAC-12.C1.5.1
Ceriotti, Matteo	CA	IAC-12.C1.9.10
Cerovac, Milorad	A	IAC-12.E1.2.3
Ceruti, Luca	A	IAC-12.C4.4.8
Cervone, Angelo	A	IAC-12.C4.3.5
Cervone, Angelo	A	IAC-12.C4.6.2

Cesaretti, Giovanni	CA	IAC-12.C4.4.1
Cesari, Ugo	CA	IAC-12.C4.4.7
Cesari, Ugo	CA	IAC-12.C4.4.22
Cesari, Ugo	CA	IAC-12.C4.4.23
Cesari, Ugo	CA	IAC-12.C4.4.27
Cesta, Amedeo	CA	IAC-12.B5.2.10
Chabot, Nancy	CA	IAC-12.A3.3A.7
Chabot, Thomas	CA	IAC-12.A6.5.9
Chacko, Tintu	A	IAC-12.C1.2.3
Chae, Kyu-Sung	CA	IAC-12.B4.2.4
Chai, Patrick R.	CA	IAC-12.D3.2.3
Chakraborty, Arindam	CA	IAC-12.B6.3.11
Challis, Simon	CA	IAC-12.D5.2.7
Chandler, Ashley	CA	IAC-12.A3.1.9
Chandler, Ashley	A	IAC-12.C4.2.11
Chandra Dathan, Madhavan	CA	IAC-12.D2.2.13
Chandran, Anand	CA	IAC-12.A3.3A.10
Chandrasekhar, M.G.	CA	IAC-12.B2.4.2
Chang, Byung Chul	CA	IAC-12.A5.1.4
Chang, Guey-Shin	CA	IAC-12.B1.1.5
Chang, Guey-Shin	A	IAC-12.B1.2.6
Chang, Guey-Shin	CA	IAC-12.B4.4.8
Chang, Guey-Shin	CA	IAC-12.B1.4.9
Chang, Ho-Pen	CA	IAC-12.B1.2.6
Chang, Ho-Pen	A	IAC-12.B4.4.8
Chang, Mark	CA	IAC-12.B4.4.3
Changming, Zhao	A	IAC-12.C3.3.14
Chappell, Laurie	A	IAC-12.A3.3B.5
Charania, A.C.	A	IAC-12.C3.1.10
Charania, A.C.	A	IAC-12.D2.7.3
Charania, A.C.	A	IAC-12.B4.5.2
Charles, John	A	IAC-12.B3.3.6
Charles, Romain	A	IAC-12.A1.1.1
Charles, Romain	CA	IAC-12.A1.1.24
Chatterjee, Joyeeta	CA	IAC-12.E7.1.3
Chatterjee, Joyeeta	A	IAC-12.E7.1.28
Chatterjee, Sagnik	A	IAC-12.E7.1.20
Chatwin, Andrew	A	IAC-12.E4.2.4
Chauvin, Johanna	A	IAC-12.D6.1.11
Chavagnac, Christophe	A	IAC-12.D6.1.6
Chavagnac, Christophe	A	IAC-12.D2.9-D6.2.4
Chavers, Greg	CA	IAC-12.A3.2C.1
Chaves Jimenez, Adolfo	CA	IAC-12.B4.1.7
Chavez Velazco, Abraham	A	IAC-12.A5.2.7
Chazalnoël, Pascale	CA	IAC-12.A3.3B.6
Chazot, Olivier	CA	IAC-12.C2.9.9
Cheetham, Bradley	CA	IAC-12.E1.1.6
Cheetham, Bradley	A	IAC-12.E1.4.5
Cheetham, Bradley	A	IAC-12.E6.4-D4.2.1
Cheetham, Bradley	A	IAC-12.E6.1.6
Chelaru, Teodor-Viorel	A	IAC-12.C4.6.12
Chelaru, Teodor-Viorel	CA	IAC-12.C1.8.13
Chemoul, Bernard	A	IAC-12.D2.2.4
Chen, Bin	A	IAC-12.B2.1.2
Chen, Bingyan	A	IAC-12.A3.2D.26
Chen, Bingyan	CA	IAC-12.A3.2D.38
Chen, Cynthia	A	IAC-12.E1.9.2
Chen, Dong	CA	IAC-12.B2.5.14
CHEN, Jianhua	CA	IAC-12.C4.3.6
CHEN, Jianhua	CA	IAC-12.C4.3.12
Chen, Jizheng	CA	IAC-12.C1.4.5
Chen, Lei	CA	IAC-12.A6.2.19
Chen, Li	CA	IAC-12.C2.1.15
Chen, Li	CA	IAC-12.A6.2.12
Chen, Li	CA	IAC-12.A6.5.21
Chen, Li	CA	IAC-12.C2.7.12
Chen, Liang	CA	IAC-12.A2.6.7
Chen, Lue	CA	IAC-12.B2.2.16
Chen, Lue	CA	IAC-12.B2.5.12
Chen, Ming	CA	IAC-12.B2.2.16
Chen, Sang	CA	IAC-12.A1.7.5
Chen, Shan-guang	CA	IAC-12.B6.3.9
Chen, ShanGuang	A	IAC-12.B3.5.10
Chen, Wen	A	IAC-12.B4.4.12
Chen, Wen	CA	IAC-12.C1.3.5
CHEN, Xiaolong	A	IAC-12.C4.6.4
Chen, Xuejun	CA	IAC-12.B2.3.13
Chen, Yanpei	A	IAC-12.A2.1.15
Chen, Yonglai	CA	IAC-12.C2.4.12
Chen, Yue	A	IAC-12.C4.3.3
Chen, Zhiyong	A	IAC-12.C2.7.12
Cheng, Andy	CA	IAC-12.A3.4.9
Cheng, Haowen	CA	IAC-12.B1.5.10
Cheng, Liu	CA	IAC-12.C3.3.14
Cheng, Mousen	CA	IAC-12.C4.5.15
Cheng, Xiao	CA	IAC-12.A3.2D.25
Chengwei, Hu	CA	IAC-12.A5.3-B3.6.9
Cherkas, Sergey	A	IAC-12.E5.1.14
Chern, Rock Jeng-Shing	A	IAC-12.B4.2.2
Chernikova, Anna	CA	IAC-12.A1.2.2
Chernikova, Anna	A	IAC-12.A1.2.21
Chernikova, Anna	A	IAC-12.A1.2.22
Chernikova, Anna	CA	IAC-12.A1.2.23
Chernova, Maria	CA	IAC-12.A1.2.10
Chernova, Maria	CA	IAC-12.A1.3.4
Chernykh, I.	CA	IAC-12.A1.4.17
Cherrington, Emil	CA	IAC-12.E3.2.3
Cherrington, Emil	CA	IAC-12.E5.5B.2
Chesley, Bruce	CA	IAC-12.B4.3.11
Chesley, Bruce	A	IAC-12.B4.5.1
Chess, Carrie	CA	IAC-12.E3.1.12
Cheung, Kar-Ming	CA	IAC-12.B2.1.8
Chhaniyara, Savan	CA	IAC-12.D1.6.1
Chiaradia, Marco	CA	IAC-12.C1.2.8
Chiaradia, Marco	CA	IAC-12.D3.3.4
Chiaretta, Eduardo	CA	IAC-12.C4.4.19
Chiarini, Marco	CA	IAC-12.A6.1.18
Chiba, Masakatsu	CA	IAC-12.C2.3.10
Chiba, Masakatsu	CA	IAC-12.C2.5.5
Chiesa, Alessandro	A	IAC-12.A6.7.2
Chiesa, Sergio	CA	IAC-12.A6.5.8
Chilibeck, Phil	CA	IAC-12.A1.3.13
Chiocchia, Gianfranco	CA	IAC-12.B4.8.3
Chishti, Arif Ali	CA	IAC-12.A1.4.5
Cho, Dong-Hyun	A	IAC-12.C1.5.8
Cho, Mengu	CA	IAC-12.C3.2.5
Cho, Mengu	CA	IAC-12.D5.3.13
Choe, Nammi	A	IAC-12.E3.4.12
Choi, David	CA	IAC-12.A3.3B.10
Choi, Jaewon	A	IAC-12.C4.7-C3.5.4
Choi, Jaewon	A	IAC-12.D5.3.2
Choi, Jay Hyuk	CA	IAC-12.C1.9.2
Choi, Joon Min	CA	IAC-12.E3.4.12
Chong, Yean Joo	A	IAC-12.E5.1.10
Choo, Chee Wee	CA	IAC-12.B2.5.3
Chopra, Pradeep K	CA	IAC-12.B2.4.2
Chou, Chi-Wei	A	IAC-12.C2.1.4
Chow, Tiffany	A	IAC-12.B1.1.7
Chow, Tiffany	CA	IAC-12.E3.2.5
Chow, Tiffany	CA	IAC-12.D3.3.6
Chow, Tiffany	CA	IAC-12.B5.1.10
Chowdhuri, Rajdeep	CA	IAC-12.A5.1.5
Chpoun, Amer	CA	IAC-12.C4.3.1
Christensen, Carissa	CA	IAC-12.D2.4.13
Christensen, Carissa	CA	IAC-12.E3.3.10
Christensen, Carissa	CA	IAC-12.E6.1.2
Christensen, Carissa	A	IAC-12.E6.1.5
Christensen, Richard	CA	IAC-12.A3.3A.14
Christian, Carol	A	IAC-12.E1.8.5
Christie, Ian	CA	IAC-12.E1.1.5
Christophe, Bruno	CA	IAC-12.B1.3.4
Christopher, Sundar	CA	IAC-12.B1.1.9
Christopher, Sundar	CA	IAC-12.B1.4.14
Chu, Chung-Huei	A	IAC-12.B1.1.5
Chu, Chung-Huei	CA	IAC-12.B1.4.9
Chu, Jing	CA	IAC-12.D1.4.2
Chumachenko, Eugene	CA	IAC-12.A5.4.2
Chun, Francis	CA	IAC-12.A6.1.1
Chun, Francis	CA	IAC-12.A6.1.2
Chun, Francis	CA	IAC-12.E1.3.7

Chung, Seungmi	A	IAC-12.E3.4.6
Chung, Youngsuk	CA	IAC-12.C1.9.2
Chèoux-Damas, Philippe	CA	IAC-12.B5.1.5
Cialdai, Francesca	CA	IAC-12.A1.7.11
Ciaramicoli, Mario	A	IAC-12.B6.4.8
Ciarleglio, Constance	A	IAC-12.D2.3.8
Cibin, Lorenzo	A	IAC-12.A6.1.18
Cicala, Marco	CA	IAC-12.C1.9.5
Ciccarelli, Silvia	A	IAC-12.E3.1.6
Ciccolella, Antonio	A	IAC-12.B1.6.4
Cikanek, Harry A.	A	IAC-12.B1.2.1
Cinquegrana, Davide	A	IAC-12.D1.3.6
Cinquegrana, Davide	CA	IAC-12.A3.3A.19
Cinquegrana, Davide	CA	IAC-12.A3.5.14
Ciofani, Gianni	CA	IAC-12.A1.7.11
Ciofaniello, Luca	CA	IAC-12.B1.3.8
Cipullo, Alessio	A	IAC-12.C2.6.7
Circi, Christian	CA	IAC-12.B4.8.3
Cislaghi, Massimo	CA	IAC-12.B3.4-B6.5.3
Cislaghi, Massimo	A	IAC-12.B6.1.3
Cito, Salvatore	A	IAC-12.A2.2.8
Cito, Salvatore	CA	IAC-12.A2.6.1
Ciufolini, Ignazio	A	IAC-12.B4.2.1
Ciufolini, Ignazio	CA	IAC-12.C2.1.17
Ciufolini, Ignazio	CA	IAC-12.C2.4.16
Ciufolini, Ignazio	CA	IAC-12.C2.6.5
Ciufolini, Ignazio	CA	IAC-12.B4.5.11
Ciufolini, Ignazio	CA	IAC-12.C2.9.5
Claasen, Friedhelm	A	IAC-12.A3.2B.10
Claessens, Dirk	A	IAC-12.B4.4.7
Claessens, Dirk	A	IAC-12.A3.3B.9
Claessens, Dirk	A	IAC-12.A2.7.8
Claessens, Dirk	A	IAC-12.B3.7.9
Claessens, Dirk	A	IAC-12.D5.3.9
Clark, Jonathan	CA	IAC-12.A1.8.4
Clark, Ruaridh	A	IAC-12.E2.3.7
Clark, Sheldon	CA	IAC-12.A6.3.7
Clarke, Jonathan	CA	IAC-12.E6.2.8
Claudio, Milana	CA	IAC-12.C4.2.1
Clayborn, Ashley	A	IAC-12.D3.2.10
Clearwater, Yvonne	A	IAC-12.E5.4.1
Clement, Gilles	CA	IAC-12.A1.2.12
Clerc, Xavier	CA	IAC-12.A6.7.2
Clerc, Xavier	A	IAC-12.A6.7.4
Close, Sigrid	CA	IAC-12.A6.1.8
Cloutet, Philippe	CA	IAC-12.C4.2.3
Cloutet, Philippe	CA	IAC-12.C4.2.5
Cloutis, Ed	CA	IAC-12.A3.3A.17
Clément, Gilles	CA	IAC-12.A1.2.5
Cobb, Jeff	CA	IAC-12.A4.1.2
Cobb, Jeff	CA	IAC-12.A4.1.3
Cockrell Jr., Charles E.	A	IAC-12.D2.8.9
Cocuzza, Silvio	A	IAC-12.C1.2.8
Cocuzza, Silvio	CA	IAC-12.C2.2.6
Cocuzza, Silvio	CA	IAC-12.D1.2.10
Cocuzza, Silvio	CA	IAC-12.A2.3.10
Cocuzza, Silvio	CA	IAC-12.C2.4.9
Cocuzza, Silvio	A	IAC-12.D3.2.9
Cocuzza, Silvio	A	IAC-12.C2.5.2
Cocuzza, Silvio	A	IAC-12.D3.3.4
Cocuzza, Silvio	A	IAC-12.C2.9.7
Coderre, Kathleen	A	IAC-12.B6.2.2
Cohen, Barbara	CA	IAC-12.A3.2C.1
Cohen, Iris	CA	IAC-12.A1.1.23
Cohen, Marc M.	CA	IAC-12.E5.3.6
Colamarino, Claudio	CA	IAC-12.B2.1.10
Colaprete, Anthony	CA	IAC-12.A3.2C.4
Cole, Jonathan	CA	IAC-12.A1.2.7
Cole, Timothy	CA	IAC-12.A3.2C.1
Cole, Timothy P.	CA	IAC-12.B2.4.1
Colella Albino, Vittorio	A	IAC-12.E7.2.5
Coleman, Anne	A	IAC-12.E4.3B.2
Coletta, Alessandro	CA	IAC-12.B1.5.12
Coletta, Alessandro	CA	IAC-12.B1.6.7
Coletta, Elizabeth	CA	IAC-12.A1.3.5
Collado, Aurélie	CA	IAC-12.A1.1.21
Collado, Aurélie	A	IAC-12.A1.1.22
Collange, Guillaume	A	IAC-12.D2.2.1
Collette, Jean-Paul	A	IAC-12.C2.8.5
Collon, Maximillien	CA	IAC-12.B3.3.11
Collopy, Paul	CA	IAC-12.D3.4.3
Collopy, Paul	CA	IAC-12.D1.6.6
Colloredo, Scott T.	CA	IAC-12.D2.2.3
Colmenarejo, Pablo	CA	IAC-12.C1.2.7
Colmenarejo, Pablo	CA	IAC-12.D1.6.3
Colmon, Arnaud	CA	IAC-12.A2.1.4
Colomba, Mauro	CA	IAC-12.A3.3B.8
Colombatti, Giacomo	CA	IAC-12.A6.4.7
Colombatti, Giacomo	CA	IAC-12.A3.3C.1
Colombo, Camilla	A	IAC-12.C1.1.13
Colombo, Camilla	A	IAC-12.C1.4.12
Colucci, Marisanta	CA	IAC-12.A1.3.1
Colucci, Raffaele	CA	IAC-12.A1.3.1
Colucci, Vincenzo	CA	IAC-12.A1.3.1
Coluzzi, Plinio	CA	IAC-12.C2.4.1
Coluzzi, Plinio	CA	IAC-12.C2.8.1
Coluzzi, Plinio	CA	IAC-12.A3.3C.4
Coluzzi, Plinio	A	IAC-12.C2.9.9
Comet, Bernard	CA	IAC-12.A1.2.11
Componation, Paul	CA	IAC-12.B1.3.6
Componation, Paul	CA	IAC-12.E1.3.4
Componation, Paul	CA	IAC-12.D3.4.3
Comtois, Jean-Marc	CA	IAC-12.B6.1.10
Concas, Alessandro	CA	IAC-12.D3.3.9
Concholar, Monica	A	IAC-12.D5.2.12
Conde, Richard	CA	IAC-12.A3.5.2
Conley, Catharine	A	IAC-12.A3.3B.2
Conley, Catharine	CA	IAC-12.A1.5.11
Connor, Jane A.	CA	IAC-12.E1.3.9
Conrad, Cindy	CA	IAC-12.E6.3.10
Contant, Jean-Michel	CA	IAC-12.E8.1.1
Contant, Jean-Michel	CA	IAC-12.E3.4.1
Conte, Michael	CA	IAC-12.A1.7.10
Conticello, Simon Silvio	CA	IAC-12.B3.3.12
Cook, David	CA	IAC-12.E1.5.5
Cook, Richard A.	A	IAC-12.A3.3A.1
Cook, Steve	A	IAC-12.A3.2B.2
Cook, Steve	A	IAC-12.D2.8.10
Cook, Steve	A	IAC-12.A6.7.5
Cooksy, Kirstin	CA	IAC-12.B1.5.9
Copin, François	CA	IAC-12.B5.1.5
Corbelli, Alberto	CA	IAC-12.B2.1.10
Corbelli, Alberto	CA	IAC-12.B4.7A.4
Corbelli, Alberto	CA	IAC-12.B4.5.10
Corbin, Benjamin	CA	IAC-12.B4.6B.8
Cordelli, Emiliano	CA	IAC-12.A6.5.22
Cordes, Jim	CA	IAC-12.A4.1.3
Cordey, Ralph	CA	IAC-12.A3.5.9
Cormier, Danielle	CA	IAC-12.B3.7.8
Cornara, Stefania	A	IAC-12.C1.4.9
Corpino, Sabrina	CA	IAC-12.D1.4.11
Corpino, Sabrina	CA	IAC-12.B4.6B.6
Corraro, Federico	CA	IAC-12.D2.4.15
Corraro, Federico	A	IAC-12.D2.6.9
Corraro, Federico	CA	IAC-12.C1.9.5
Corrias, Gianluca	CA	IAC-12.D3.3.9
Corsano, Luigi	CA	IAC-12.B1.4.1
Cosmo, Mario	A	IAC-12.B1.2.8
Cosmo, Mario	CA	IAC-12.D2.8.1
Cosmo, Mario	A	IAC-12.D3.4.10
Costa, Lucas Lopes	CA	IAC-12.B4.1.5
Costa i Sitjà, Marc	A	IAC-12.A3.5.19
Costa i Sitjà, Marc	CA	IAC-12.D3.4.4
Costanza, Laura	CA	IAC-12.A6.7.2
Coste, Pierre	CA	IAC-12.A3.3B.7
Cottam, Tamara	A	IAC-12.E5.5A.7
Couffin, Eric	CA	IAC-12.E1.9.1
Cougnet, Claude	CA	IAC-12.A6.3.2
Cougnet, Claude	A	IAC-12.A6.4.4
Cougnet, Claude	CA	IAC-12.B1.6.3

Cougnet, Claude	CA	IAC-12.A6.7.7
Coulon, Didier	A	IAC-12.D2.1.3
Coustenis, Athena	CA	IAC-12.D3.1.7
Couzin, Patrice	CA	IAC-12.A3.1.7
Couzin, Patrice	CA	IAC-12.D3.1.2
Couzin, Patrice	A	IAC-12.A6.5.5
Covello, Fabio	CA	IAC-12.B1.2.8
Covello, Fabio	A	IAC-12.B1.3.9
Covello, Fabio	CA	IAC-12.B1.5.12
Covello, Fabio	A	IAC-12.B1.6.7
Covello, Fabio	CA	IAC-12.B6.2.7
Cowardin, Heather	CA	IAC-12.A6.1.1
Cowardin, Heather	CA	IAC-12.A6.1.6
Cowlard, Adam	A	IAC-12.A2.2.2
Cowlard, Adam	CA	IAC-12.A2.2.3
Cox, Brad	A	IAC-12.A1.4.7
Crahay, Jean	CA	IAC-12.C2.8.5
Craig, Jennifer L.	CA	IAC-12.E1.3.9
Crawley, Edward	CA	IAC-12.D1.4.6
Crawley, Edward	CA	IAC-12.A5.4.1
Creech, Steve	A	IAC-12.D2.8.2
Crescenzi, Rocco	CA	IAC-12.C4.6.9
Crippa, Roberto	CA	IAC-12.A4.1.8
Crisconio, Marino	CA	IAC-12.B3.1.7
Crisconio, Marino	CA	IAC-12.B3.4-B6.5.5
Crisconio, Marino	CA	IAC-12.B6.1.1
Croce, Anna	CA	IAC-12.B1.6.8
Croci, Renato	CA	IAC-12.A3.5.8
Croci, Renato	CA	IAC-12.A3.3C.5
Crocker, Andy	CA	IAC-12.A3.2B.2
Crocker, Andy	CA	IAC-12.D2.8.10
Cropp, Alexander	CA	IAC-12.B4.7B.4
Cross, Matthew	A	IAC-12.D1.2.11
Cross, Matthew	A	IAC-12.E5.5B.1
Cruciani, Irene	CA	IAC-12.C1.9.5
Cruise, James	CA	IAC-12.B5.2.3
Crumbly, Chris	A	IAC-12.D2.6.7
Cucciarrè, Francesca	CA	IAC-12.C2.2.6
Cucciarrè, Francesca	CA	IAC-12.A3.3C.1
Cuciniello, Giovanni	CA	IAC-12.D2.6.9
Cuciniello, Giovanni	A	IAC-12.C1.9.5
Cucinotta, Francis A.	CA	IAC-12.A1.4.6
Cugno, Walter	CA	IAC-12.B3.4-B6.5.4
Cui, Jixiang	A	IAC-12.B4.3.3
Cui, Pingyuan	CA	IAC-12.C1.3.6
Cui, Pingyuan	CA	IAC-12.A3.4.12
Cui, Pingyuan	CA	IAC-12.A3.3C.9
Culick, Fred E.	CA	IAC-12.A5.4.11
Cunio, Phillip	CA	IAC-12.A6.5.19
Cuollo, Marco	CA	IAC-12.B1.4.8
Curcio, Francesco	CA	IAC-12.A1.7.2
Curran, Cian	CA	IAC-12.E5.1.13
Currie, Douglas	A	IAC-12.A3.2D.21
Cusworth, Daniel	CA	IAC-12.B1.5.2
Cutter, Mike	A	IAC-12.B4.4.3
Czysz, Paul A.	CA	IAC-12.D2.4.10

D

Name	Role	Paper
D'Addio, Salvatore	CA	IAC-12.B1.3.10
D'Agostino, Luca	CA	IAC-12.C4.3.5
D'Aliesio, Giovanni	A	IAC-12.B1.4.7
D'Amico, Fabio	A	IAC-12.A6.2.11
D'Amico, Giuseppe	CA	IAC-12.A6.2.11
D'Amico, Giuseppe	CA	IAC-12.B1.4.2
D'Amico, Simone	CA	IAC-12.B4.7B.4
D'Amore, Nicholas	A	IAC-12.C1.8.9
D'Aversa, Emanuela	CA	IAC-12.D2.4.1
D'Errico, Marco	CA	IAC-12.B4.7B.1
D'Errico, Marco	CA	IAC-12.C1.5.2
D'Errico, Marco	A	IAC-12.B1.6.9
da Costa, Leonardo Zavareze	CA	IAC-12.B1.3.12
da Costa, Leonardo Zavareze	CA	IAC-12.C3.4.10
Da Fonseca, Ijar M.	A	IAC-12.C2.3.7
da Rosa, Guilherme Simon	CA	IAC-12.B1.3.12
da Silva Curiel, Alex	A	IAC-12.B1.2.10
da Silva Curiel, Alex	A	IAC-12.B4.4.6
da Silva Curiel, Alex	A	IAC-12.B4.4.13
da Silva Curiel, Alex	CA	IAC-12.B4.6A.5
da Silva Curiel, Alex	CA	IAC-12.B2.6.7
Dachev, Tsvetan	A	IAC-12.A1.4.9
Dachev, Tsvetan P.	CA	IAC-12.A1.4.4
Dachwald, Bernd	A	IAC-12.A3.5.7
Dacla, Thibaut	CA	IAC-12.B5.1.8
Daehler, Erik	A	IAC-12.B4.3.11
Dahle, Kolbjørn	CA	IAC-12.E1.3.11
Dahlmann, Anke	CA	IAC-12.A1.8.5
Dai, Fei	A	IAC-12.A6.2.15
Dai, Fei	CA	IAC-12.A3.3A.15
Dai, Yongchao	CA	IAC-12.B4.6A.10
Dakshayani, B.P.	A	IAC-12.C1.2.3
Dal Lago, Alisson	CA	IAC-12.B1.3.12
Daly, Michael	CA	IAC-12.A3.3A.7
Daly, Michael	CA	IAC-12.A3.3B.5
Damann, Volker	CA	IAC-12.B3.5.2
Damann, Volker	CA	IAC-12.B3.5.4
Damari, Kfir	CA	IAC-12.B4.8.6
Damilano, Patrice	CA	IAC-12.B1.3.1
Damilano, Patrice	CA	IAC-12.C1.8.8
Dandamudi, Subhakar	A	IAC-12.A4.1.12
Dang, Bitrus	CA	IAC-12.B1.5.4
Daniyar, Balapanov	CA	IAC-12.A2.3.9
Danous, Patrick	A	IAC-12.C4.1.9
Dario, Scoccimarro	CA	IAC-12.C4.2.3
Dario, Scoccimarro	CA	IAC-12.C4.9.4
Darneaux, Pierrick	CA	IAC-12.E5.2.7
Dartigalongue, Alain	CA	IAC-12.D2.2.4
Dartigalongue, Alain	CA	IAC-12.E1.9.1
Dash, Sanket	A	IAC-12.E2.1.3
David, Emmanuelle	CA	IAC-12.E6.2.4
David, Emmanuelle	CA	IAC-12.A6.6.5
David, Leonard	CA	IAC-12.E3.1.9
David, Matthieu	CA	IAC-12.A6.4.4
Davidian, Ken	CA	IAC-12.E6.1.3
Davidian, Ken	A	IAC-12.E6.1.4
Davidian, Ken	A	IAC-12.E6.3.10
Davies, Philip	CA	IAC-12.B1.2.10
Davies, Philip	CA	IAC-12.B4.4.6
Davies, Philip	A	IAC-12.B4.6A.5
Davies, Philip	A	IAC-12.B2.6.7
Davis, Bruce	A	IAC-12.E1.1.6
Davis, Bruce	A	IAC-12.E1.5.9
Davis, Jeffrey R.	A	IAC-12.A1.3.2
Davis, Jeffrey R.	CA	IAC-12.E5.1.4
Dawar, Sameer	CA	IAC-12.D5.3.12
De Alessandro, Roque	CA	IAC-12.C4.4.19
De Angelis, Giovanni	A	IAC-12.A1.4.4
De Benedictis, Riccardo	A	IAC-12.B5.2.10
de Bruijn, Frederik Johannes	A	IAC-12.C1.1.12
De Chiara, Giuseppe	CA	IAC-12.A2.5.9
de Crombrugghe, Guerric	A	IAC-12.C2.8.8
De Filippis, Federico	CA	IAC-12.C2.6.7
de Frutos Carro, Miguel Ángel	CA	IAC-12.E6.1.1
de Frutos Carro, Miguel Ángel	CA	IAC-12.E5.2.11
De Gaetano, Giuseppe	CA	IAC-12.C2.1.11
de Groot, Rolf	CA	IAC-12.A3.1.1
de Hauteclocque, Bertrand	A	IAC-12.E3.3.6
de Hauteclocque, Bertrand	A	IAC-12.E6.1.7
de la Calle, Ignacio	CA	IAC-12.D3.4.4
de Leon, Pablo	A	IAC-12.A5.1.1
de Lillis, Arturo	CA	IAC-12.C4.1.2
De Luca, Giuseppe Francesco	CA	IAC-12.A6.2.11
De Luca, Giuseppe Francesco	CA	IAC-12.B1.1.4
De Luca, Giuseppe Francesco	CA	IAC-12.B1.2.8
De Luca, Giuseppe Francesco	CA	IAC-12.B1.3.9
De Luca, Giuseppe Francesco	CA	IAC-12.B1.6.8
De Luca, Giuseppe Francesco	CA	IAC-12.B6.2.7
De Maio, Anna	CA	IAC-12.A1.4.14

De Maio, Anna	CA	IAC-12.A1.4.20
De Marchi, Federico	CA	IAC-12.B6.2.4
de Matteis, Pier Paolo	CA	IAC-12.C4.1.1
de Melo, Cristiano F.	CA	IAC-12.C1.7.10
De Mey, Stefaan	CA	IAC-12.B5.1.9
De Micco, Veronica	A	IAC-12.A3.2D.36
De Micco, Veronica	CA	IAC-12.A1.4.14
De Micco, Veronica	A	IAC-12.A1.4.20
De Moss, Darrin	CA	IAC-12.A1.7.7
De Nicola, Felice	CA	IAC-12.C2.9.2
De Oliveira Bittencourt Neto, Olavo	A	IAC-12.E7.1.9
De Parolis, Maria Natalina	CA	IAC-12.B3.3.9
De Pascale, Fabio	CA	IAC-12.A2.3.4
De Pascale, Fabio	CA	IAC-12.A2.3.6
De Pascale, Stefania	CA	IAC-12.A3.2D.36
De Pascale, Stefania	CA	IAC-12.A1.6.3
De Pascale, Stefania	CA	IAC-12.A1.8.14
De Pasquale, Davide	CA	IAC-12.D1.6.10
de Paulis, Daniela	A	IAC-12.E5.4.8
de Paulis, Daniela	A	IAC-12.E1.7.14
De Ridder, Malika	CA	IAC-12.A3.3B.9
De Rosa, Diego	CA	IAC-12.A3.2D.18
De Rosa, Diego	CA	IAC-12.A3.2B.4
De Simone, Valeria	CA	IAC-12.C2.1.16
de Staerke, Danielle	CA	IAC-12.E1.9.1
De Stefano Fumo, Mario	CA	IAC-12.D1.3.6
De Stefano Fumo, Mario	CA	IAC-12.D2.3.7
De Stefano Fumo, Mario	A	IAC-12.A3.3A.19
De Stefano Fumo, Mario	CA	IAC-12.D2.4.1
De Stefano Fumo, Mario	CA	IAC-12.D2.4.15
De Stefano Fumo, Mario	CA	IAC-12.A3.5.14
de Vera, Jean-Pierre Paul	CA	IAC-12.A1.5.9
de Vet, Sebastiaan	CA	IAC-12.E1.1.3
De Vries, Willem	A	IAC-12.A6.2.14
De Vries, Willem	CA	IAC-12.A6.5.11
De Zaiacomo, Gabriele	CA	IAC-12.D2.3.5
Dearborn, Mike	CA	IAC-12.A6.1.1
Dearborn, Mike	A	IAC-12.A6.1.2
Dearborn, Mike	A	IAC-12.E1.3.7
Dearborn, Mike	A	IAC-12.B4.6B.1
Debei, Stefano	CA	IAC-12.C1.2.8
Debei, Stefano	CA	IAC-12.C2.2.6
Debei, Stefano	CA	IAC-12.D1.2.10
Debei, Stefano	CA	IAC-12.A2.3.10
Debei, Stefano	CA	IAC-12.C2.4.9
Debei, Stefano	CA	IAC-12.D3.2.9
Debei, Stefano	CA	IAC-12.C2.5.2
Debei, Stefano	CA	IAC-12.D3.3.4
Debei, Stefano	CA	IAC-12.A3.5.16
Debei, Stefano	A	IAC-12.A3.3C.1
Debei, Stefano	CA	IAC-12.A3.3C.3
Debei, Stefano	CA	IAC-12.C2.9.7
Debierre, Jean-Marc	CA	IAC-12.A2.6.7
Deblecker, Olivier	CA	IAC-12.C3.3.2
Debnath, Kumar Biswajit	A	IAC-12.B6.4.5
DeChiara, Giuseppe	CA	IAC-12.B6.1.5
Deep, Prakhar	CA	IAC-12.E7.1.20
Degtyar, Vladimir	A	IAC-12.D2.6.11
Degtyarev, Alexander	CA	IAC-12.C1.1.10
Degtyarev, Alexander	CA	IAC-12.C4.6.10
Degtyarev, Alexander	A	IAC-12.D2.7.6
Degtyarev, Alexander	A	IAC-12.C2.8.12
Degtyareva, Elena	CA	IAC-12.C1.1.10
Dejmek, Marcus	CA	IAC-12.A2.6.2
Dejmek, Marcus	CA	IAC-12.A2.6.5
Del Mastro, Antonio	CA	IAC-12.E5.2.6
Del Sette, Fausto	CA	IAC-12.A3.3C.4
Del Vecchio, Antonio	CA	IAC-12.C2.1.16
Del Vecchio, Antonio	CA	IAC-12.C2.4.3
Del Vecchio, Antonio	A	IAC-12.C2.7.6
Del Vecchio, Antonio	CA	IAC-12.C2.9.11
DeLatte, Danielle	CA	IAC-12.D4.4.6
Delepaut, Christophe	CA	IAC-12.C3.3.2
Delfini, Andrea	CA	IAC-12.A3.3C.4
Delfini, Andrea	CA	IAC-12.C2.9.9
Delgado, Francisco	CA	IAC-12.E5.5B.2
Dell'Agnello, Simone	CA	IAC-12.A3.2D.21
Dell'Elce, Lamberto	A	IAC-12.C1.3.12
Della Sala, Ernesto	CA	IAC-12.A2.5.6
Delle Monache, Giovanni	CA	IAC-12.A3.2D.21
Delle Monache, Giovanni	CA	IAC-12.B2.6.3
Delpech, Michel	CA	IAC-12.A3.3B.6
DeLuca, Luigi T.	A	IAC-12.A6.5.8
DeLuna, Alan T.	A	IAC-12.B6.1.8
DeLuna, Alan T.	A	IAC-12.E6.2.9
DeLuna, Alan T.	A	IAC-12.D2.9-D6.2.1
DeMarines, Julia	A	IAC-12.A1.5.2
Demel, Michael	CA	IAC-12.A1.2.12
Demorest, Paul	CA	IAC-12.A4.1.3
Dempsey, Paul	A	IAC-12.E7.5.5
Deng, Heng	A	IAC-12.B2.3.11
Deng, Li	A	IAC-12.D3.4.6
Deng, Yingli	CA	IAC-12.A3.2D.25
Dengra, Felipe	A	IAC-12.D2.3.10
Denis, Gil	A	IAC-12.B1.6.3
Denis, Gil	A	IAC-12.E1.7.13
Denis, Gil	CA	IAC-12.E1.9.1
Denisova, M. O.	CA	IAC-12.A2.4.4
Denning, Kathryn	A	IAC-12.E1.4.3
Denning, Kathryn	A	IAC-12.A4.2.7
Denning, Kathryn	A	IAC-12.A4.2.9
DePasquale, Dominic	CA	IAC-12.B4.5.2
Dequan, Lou	A	IAC-12.C4.6.14
Derechin, Alexander G.	CA	IAC-12.B3.1.10
Derechin, Alexander G.	A	IAC-12.B3.2.1
Derkevorkian, Armen	CA	IAC-12.C2.5.10
Derkinderen, Wim	CA	IAC-12.A1.8.2
Derz, Uwe	CA	IAC-12.A5.4.7
Desaraju, Venugopal	A	IAC-12.B2.4.2
Desaraju, Vishnu	CA	IAC-12.A3.3A.9
Desbiens, André	CA	IAC-12.C1.1.6
Deshmukh, Varad	CA	IAC-12.B4.1.8
Desjean, Marie-Christine	CA	IAC-12.A6.7.1
Desoete, Bart	CA	IAC-12.A2.7.8
Desoete, Bart	CA	IAC-12.A1.8.2
Destefanis, Roberto	A	IAC-12.A3.2D.29
Destefanis, Roberto	A	IAC-12.A6.3.3
Destefanis, Roberto	CA	IAC-12.A6.3.4
Destefanis, Roberto	CA	IAC-12.A6.4.8
Detsis, Bianca	A	IAC-12.E5.1.3
Detsis, Bianca	CA	IAC-12.E3.4.11
Detsis, Emmanouil	CA	IAC-12.A6.2.13
Detsis, Emmanouil	CA	IAC-12.E5.1.3
Detsis, Emmanouil	CA	IAC-12.E5.3.5
Dettmann, Jan	CA	IAC-12.B3.3.12
Devaux, Caroline	A	IAC-12.E7.1.12
Dhatchanamoorthy, Rajarajan	CA	IAC-12.B4.4.10
Dhingra, Shashank	CA	IAC-12.E2.3.9
Dhiri, Viney	CA	IAC-12.D5.2.8
Di Antonio, Adrian	CA	IAC-12.A1.1.5
Di Benedetto, Mauro	CA	IAC-12.B2.1.10
Di Benedetto, Sara	A	IAC-12.C2.6.1
Di Bona, Alessandro	CA	IAC-12.B6.2.7
Di Cerbo, Antonio	CA	IAC-12.D1.6.10
di Ciaccio, Simona	CA	IAC-12.E3.3.5
Di Clemente, Marco	CA	IAC-12.C2.1.10
Di Clemente, Marco	A	IAC-12.C4.3.4
Di Costanzo, Giuseppe	CA	IAC-12.A2.5.9
Di Costanzo, Giuseppe	CA	IAC-12.B6.1.5
Di Domizio, Davide	A	IAC-12.B1.1.4
Di Domizio, Davide	CA	IAC-12.B1.3.9
Di Domizio, Davide	CA	IAC-12.B1.4.1
Di Domizio, Davide	CA	IAC-12.B1.6.8
Di Domizio, Davide	CA	IAC-12.B6.2.7
Di Donato, Maria Pia	CA	IAC-12.D2.4.15
Di Fino, Luca	A	IAC-12.A1.4.10
Di Giacinto, Maurizio	CA	IAC-12.C4.9.2
Di Lauro, Riccardo	CA	IAC-12.A6.4.14
Di Lizia, Pierluigi	CA	IAC-12.C1.1.1
Di Lizia, Pierluigi	CA	IAC-12.A6.2.2

Di Lizia, Pierluigi	CA	IAC-12.C1.2.12
Di Lizia, Pierluigi	A	IAC-12.A3.4.20
Di Lizia, Pierluigi	CA	IAC-12.A3.4.22
Di Mattia, Elena	CA	IAC-12.A1.6.19
Di Mattia, Elena	CA	IAC-12.A1.8.10
Di Mauro, Giuseppe	CA	IAC-12.C1.2.12
Di Nicola, Federico	CA	IAC-12.C3.4.8
Di Pentino, Frank	A	IAC-12.A6.2.7
Di Pentino, Frank	CA	IAC-12.A6.5.2
Di Pippo, Simonetta	A	IAC-12.D5.1.5
Di Roberto, Riccardo	A	IAC-12.A6.1.20
Di Salvo, Alessio	A	IAC-12.C1.5.7
Di Trapani, Claudia	CA	IAC-12.C2.1.1
Diaz, Alex	CA	IAC-12.B4.8.1
Diaz, Ana	A	IAC-12.A1.6.8
Diaz, Carlos	CA	IAC-12.A3.3C.2
Diaz, Eric Ulysses	A	IAC-12.A3.5.12
Diaz, Eva	A	IAC-12.A3.3C.2
Diaz, Manuel	CA	IAC-12.E5.5B.2
Dickinson, Cameron	CA	IAC-12.A3.3B.5
Dickinson, Cameron	CA	IAC-12.A3.2C.2
Dietlein, Ingrid	CA	IAC-12.E3.2.8
Dietlein, Ingrid	CA	IAC-12.A2.5.11
Diez, Rodrigo	A	IAC-12.B1.4.13
Dilda, Valentina	CA	IAC-12.A1.1.17
Dilhan, Denis	CA	IAC-12.E1.9.1
Dillard, Mark	A	IAC-12.B3.2.11
Dimare, Linda	CA	IAC-12.A6.1.18
Dimare, Linda	CA	IAC-12.A3.5.4
Dimitrov, Plamen	CA	IAC-12.A1.4.4
Dimitrov, Plamen	CA	IAC-12.A1.4.9
DING, Guo-hao	A	IAC-12.C2.7.23
Ding, Rui	A	IAC-12.C3.3.3
Dinges, David	CA	IAC-12.A1.1.5
Dingman, Patrick	CA	IAC-12.A6.5.2
Dissly, Richard	CA	IAC-12.B2.2.12
Dittrich, Rok	CA	IAC-12.D5.1.4
Divakarla, Aditya Sri Naga	CA	IAC-12.A6.5.23
Divakarla, Aditya Sri Naga	A	IAC-12.A6.6.10
Divieti Pajevic, Paola	CA	IAC-12.A1.7.4
Dixon, Mike	CA	IAC-12.A1.6.3
Djojodihardjo, Harijono	A	IAC-12.C2.3.5
Djojodihardjo, Harijono	A	IAC-12.E8.1.5
Djojodihardjo, Harijono	A	IAC-12.C2.6.9
Djukic, Mizel	CA	IAC-12.E3.1.12
Djurić, Nataša	CA	IAC-12.E1.2.8
Dmitriev, Alexander	CA	IAC-12.B3.3.10
Dobie, Gordon	CA	IAC-12.D3.3.7
Doering, Kimberly	CA	IAC-12.D2.8.10
Doi, Shinobu	CA	IAC-12.B3.4-B6.5.7
Doi, Takao	CA	IAC-12.E3.2.8
Doi, Takao	CA	IAC-12.A2.5.11
Dolan, Iain	CA	IAC-12.E2.3.7
Dolce, Ferdinando	CA	IAC-12.A2.6.8
Doldirina, Catherine	A	IAC-12.B1.1.6
Doldirina, Catherine	CA	IAC-12.E7.7-B3.8.10
Domingues, Ana R.	CA	IAC-12.A1.6.6
Domínguez, Raúl	CA	IAC-12.A6.2.4
Don, Simon	A	IAC-12.C4.6.13
Donahue, Benjamin	A	IAC-12.D2.8.7
Donaldson, Nathan	CA	IAC-12.E2.3.7
Donath, Thérèse	CA	IAC-12.D1.3.1
Donati, Serena	CA	IAC-12.C3.4.1
Dong, Changhong	CA	IAC-12.C1.4.11
Dong, Feng	A	IAC-12.E5.1.11
Dong, Qiang	CA	IAC-12.A5.1.9
Dong, Qiuhuang	A	IAC-12.A6.2.12
Dong, Qiuhuang	A	IAC-12.A6.5.21
Dong, Weidong	CA	IAC-12.D2.2.12
Dongping, Liang	A	IAC-12.C2.3.19
Donohoo, Kyle	CA	IAC-12.E6.2.2
Dorney, Daniel	A	IAC-12.A5.4.10
Dos Santos, Alvaro Fabricio	A	IAC-12.E7.4.5
Dotto, Elisabetta	CA	IAC-12.A6.1.3
Dotto, Elisabetta	CA	IAC-12.A3.4.9
Doud, Dustin	A	IAC-12.D3.4.1
Doud, Dustin	A	IAC-12.B4.5.4
Doud, Dustin	CA	IAC-12.D2.9-D6.2.2
Dougherty, Kerrie	A	IAC-12.E1.7.3
Doule, Ondrej	A	IAC-12.E5.2.3
Doule, Ondrej	CA	IAC-12.E5.3.5
Doule, Ondrej	CA	IAC-12.A1.6.20
Dramas, Claire	CA	IAC-12.E1.9.1
Dreyer, Michael	CA	IAC-12.A2.3.1
Dreyer, Michael	A	IAC-12.A2.6.10
Driesman, Andrew	CA	IAC-12.A3.5.2
Drobyshev, Sergey	CA	IAC-12.A1.4.17
Drolshagen, Gerhard	CA	IAC-12.A6.1.11
Drolshagen, Gerhard	CA	IAC-12.A6.3.10
Dron', Mykola	A	IAC-12.A6.5.16
Drudi, Laura	CA	IAC-12.E5.3.8
Drudi, Laura	A	IAC-12.A1.8.6
Drudi, Laura	CA	IAC-12.E1.9.2
Du, Rong	A	IAC-12.E7.1.15
Du, Zhihui	CA	IAC-12.C2.4.12
Dualibe, Fortunato	CA	IAC-12.C3.3.2
Duan, Li	A	IAC-12.A2.3.5
Duan, Li	CA	IAC-12.A2.4.8
Duan, Li	CA	IAC-12.A2.4.9
Duberti, LL.M, Guillermo	A	IAC-12.E7.1.7
Dubey, Venketesh	CA	IAC-12.A1.2.7
Dubois-Matra, Olivier	CA	IAC-12.A6.7.3
Dubovik, Lyudmyla	A	IAC-12.A6.5.16
Duca, Elisa	A	IAC-12.D3.4.10
Duda, Jessica	CA	IAC-12.A3.3A.9
Duggan, Matthew	A	IAC-12.B3.3.8
Dumont, Etienne	CA	IAC-12.A5.4.8
Dumontel, Massimo	CA	IAC-12.C2.2.8
Duncan, Brian	CA	IAC-12.B6.2.18
Dunham, David	A	IAC-12.A5.4.2
Dunlop, David	A	IAC-12.B4.8.11
Dunstan, Martin	CA	IAC-12.C1.3.8
Dupas, Alain	A	IAC-12.D4.1.1
Dupas, Michel	A	IAC-12.B2.4.8
Durand-Carrier, Franck	CA	IAC-12.D1.5.5
Durand-Carrier, Franck	A	IAC-12.D3.4.8
Durante, Marco	A	IAC-12.A1.4.1
Durao, Otavio S.C.	CA	IAC-12.B4.2.8
Durao, Otavio S.C.	CA	IAC-12.B4.1.5
Durao, Otavio S.C.	CA	IAC-12.C3.4.10
Durrant, Stephen	CA	IAC-12.A3.3C.3
Dushin, Vladislav	CA	IAC-12.A2.2.4
Dushin, Vladislav	CA	IAC-12.A2.2.13
Duval, Geoffrey	A	IAC-12.E2.1.5
Dvorochkin, Natalya	CA	IAC-12.A1.7.3
Dwyer, Morgan	CA	IAC-12.E3.2.10
Dwyer, Morgan	CA	IAC-12.A5.4.1
Döringshoff, Klaus	CA	IAC-12.A2.1.5
D'yachkov, Lev	CA	IAC-12.A2.6.6

E

Name	Role	Paper
Easley, Ronald Blaine	CA	IAC-12.A1.8.4
Eberle, Sabrina	CA	IAC-12.B6.2.9
Ebert, Monica	CA	IAC-12.E3.1.4
Ebert, Monica	CA	IAC-12.B1.5.8
Ebert, Monica	A	IAC-12.D5.3.8
Ebinuma, Takuji	CA	IAC-12.C1.3.13
Ebrahimi, Aliakbar	A	IAC-12.E5.3.5
Ebrahimi, Masoud	CA	IAC-12.B2.2.9
Ebrahimi, Mohammad	A	IAC-12.E1.3.2
ECEVİT, Ahmet Berkant	A	IAC-12.C3.4.9
Eckardt, Kai-Uwe	CA	IAC-12.A1.8.5
Ecker, Adrian	CA	IAC-12.A1.1.5
Edwardes, Chantal	CA	IAC-12.A6.5.4
Edwin, Lionel	CA	IAC-12.A3.3C.7
Edwin, Lionel Ernest	CA	IAC-12.A3.2D.12
Efron, Gajere	CA	IAC-12.E7.4.10
Efron, Gajere	CA	IAC-12.B1.5.3
Egido, Alejandro	CA	IAC-12.B5.1.6
Eguaroje, Ezekiel	CA	IAC-12.B1.4.11
Eguaroje, Ezekiel	CA	IAC-12.E7.4.10
Ehmann, Bea	CA	IAC-12.A1.1.2
Ehrenfreund, Pascale	A	IAC-12.A3.4.9
Ehrlich, Amnon	CA	IAC-12.D2.2.11
Eickhoff, Jens	CA	IAC-12.C3.4.6
Eickhoff, Jens	CA	IAC-12.D1.6.9
Eigenbrod, Christian	A	IAC-12.A2.2.2
Eigenbrod, Christian	CA	IAC-12.A2.2.3
Eigenbrod, Christian	CA	IAC-12.A2.5.8
Eilingsfeld, Fabian	CA	IAC-12.D3.1.2
Eilingsfeld, Fabian	CA	IAC-12.A5.2.1
Eismont, Natan	CA	IAC-12.A5.4.2
Eknath, Varun	A	IAC-12.A3.3A.8
Eknath, Varun	CA	IAC-12.A6.4.12
Ellenburg, W. Lee	CA	IAC-12.B1.1.9
Ellenburg, Walter	A	IAC-12.B5.2.3
Ellery, Alex	CA	IAC-12.D1.2.11
Ellery, Alex	CA	IAC-12.A3.3A.16
Ellery, Alex	CA	IAC-12.A3.3A.17
Elliott, John	A	IAC-12.A4.2.3
Elphic, Richard	CA	IAC-12.A3.2C.4
Elstak, Joost	A	IAC-12.B4.4.2
Elstak, Joost	CA	IAC-12.B4.7A.3
Elstak, Joost	CA	IAC-12.B4.6A.9
Elstak, Joost	A	IAC-12.B4.5.8
Eltges, Thierry	CA	IAC-12.B5.1.7
Emanuela, D'Aversa	CA	IAC-12.C4.1.2
Emanuela, D'Aversa	CA	IAC-12.D2.5.4
Emes, Michael	CA	IAC-12.D5.1.11
Endo, Kunio	CA	IAC-12.B2.5.6
Eng, Douglas	CA	IAC-12.A3.2C.1
Engel, Robert	A	IAC-12.C2.3.4
Engelen, Steven	A	IAC-12.D1.2.3
Engelen, Steven	CA	IAC-12.B2.6.10
Engelhaupt, Darell	CA	IAC-12.C2.9.6
Enjie, Luan	CA	IAC-12.A3.3C.9
Enke, Hendrik	A	IAC-12.B2.4.5
Envall, Jouni	CA	IAC-12.D4.1.4
Envall, Jouni	CA	IAC-12.C3.4.5
Epenoy, Richard	A	IAC-12.C1.5.9
Eppler, Dean	CA	IAC-12.A3.2C.5
Erb, Sven	CA	IAC-12.D1.3.8
Ercol, Carl J.	CA	IAC-12.C1.5.6
Ercoli Finzi, Amalia	CA	IAC-12.A3.4.20
Ercoli Finzi, Amalia	CA	IAC-12.A3.4.22
Ercoli Finzi, Amalia	CA	IAC-12.B4.8.3
Ercoli Finzi, Amalia	CA	IAC-12.B5.2.11
Erdelyi, Zsuzsanna	CA	IAC-12.D6.1.10
Eren, Utku	CA	IAC-12.B4.6B.5
Eriksson, Katarina	CA	IAC-12.B3.2.2
Ermakov, Alexandr	A	IAC-12.A1.6.14
Ertel, Hanno	A	IAC-12.D1.5.3
Espe, Clemens	CA	IAC-12.A3.5.7
Espinasse, Sylvie	CA	IAC-12.A3.1.1
Esposito, Antonio	CA	IAC-12.C2.4.2
Esposito, Francesca	CA	IAC-12.A3.3C.1
Esposito, Marco	CA	IAC-12.B3.3.11
Esposito, Marco	CA	IAC-12.B3.3.12
Estublier, Denis	CA	IAC-12.C4.4.7
Ettl, Josef	CA	IAC-12.D2.7.10
Eugenio, Francisco	CA	IAC-12.B1.5.5
Evesque, Pierre	CA	IAC-12.A2.1.15
Ewald, Reinhold	A	IAC-12.B3.2.2
Ezquerro Navarro, José Miguel	A	IAC-12.A2.5.1
Ezquerro Navarro, José Miguel	CA	IAC-12.A2.5.7

F

Name	Role	Paper
F. Aymerich, Edu	CA	IAC-12.D3.3.6
Fabbri, Valentino	CA	IAC-12.B2.1.10
Fabbri, Valentino	A	IAC-12.C1.1.8
Fabbri, Valentino	CA	IAC-12.C3.4.8
Faber, Daniel	CA	IAC-12.B2.3.4
Faber, Daniel	A	IAC-12.E6.2.8
Facchinetti, Claudia	CA	IAC-12.B1.3.8
Facchinetti, Claudia	CA	IAC-12.B4.6A.7
Facchinetti, Claudia	A	IAC-12.D3.4.10
Facchini, Gianluca	CA	IAC-12.C2.5.7
Fahimi, Farbod	CA	IAC-12.A3.2D.9
Fahimi, Farbod	CA	IAC-12.A5.3-B3.6.7
Falcetti, Giancarlo	CA	IAC-12.A1.7.1
Falcke, Heino	CA	IAC-12.A3.2C.8
Falkner, Peter	CA	IAC-12.A3.3B.4
Faller, Ralf	CA	IAC-12.B6.2.9
Famojuro, Adetokunbo	CA	IAC-12.A2.5.10
Fan, Jinpeng	CA	IAC-12.C2.8.2
Fanchiang, Christine	A	IAC-12.D6.1.7
Fanchiang, Christine	A	IAC-12.E2.3.1
Fanchiang, Christine	A	IAC-12.B6.1.4
Fang, Baodong	CA	IAC-12.A3.3A.5
Fang, Jie	A	IAC-12.C2.3.15
Fang, Jie	A	IAC-12.C2.4.23
Fani, Renato	CA	IAC-12.A1.8.10
Fantino, Elena	CA	IAC-12.A3.2D.5
Fantino, Elena	A	IAC-12.C1.5.11
Faraud, Moreno	CA	IAC-12.A6.3.3
Faraud, Moreno	CA	IAC-12.A6.3.4
Farmer, Jeffery	CA	IAC-12.A3.2C.1
Farquhar, Robert W.	CA	IAC-12.A5.4.2
Farrés, Ariadna	A	IAC-12.C1.1.11
Farrés, Ariadna	A	IAC-12.C1.6.4
Farthing, Jonathan	CA	IAC-12.A1.3.13
Fasano, Giancarmine	A	IAC-12.B4.7B.1
Fasoulas, Stefanos	CA	IAC-12.A1.6.4
Fasoulas, Stefanos	CA	IAC-12.B3.7.13
Fatuev, Igor	A	IAC-12.C4.9.9
Favini, Bernardo	CA	IAC-12.C4.9.2
Fedorenko, Irina	CA	IAC-12.E1.4.2
Feichtinger, Elena	A	IAC-12.A1.1.24
Feldhacker, Juliana	CA	IAC-12.E1.4.5
Feldhacker, Juliana	CA	IAC-12.E6.4-D4.2.1
Feldmann, Marco	CA	IAC-12.A3.5.7
Feles, Sebastian	CA	IAC-12.A1.4.5
Felicetti, Leonard	CA	IAC-12.C2.2.11
Felix, Fernando	CA	IAC-12.D3.4.4
Felli, Ferdinando	CA	IAC-12.C2.4.16
Felsenberg, Dieter	CA	IAC-12.A1.2.8
Felsenberg, Dieter	CA	IAC-12.A1.2.16
Felsenberg, Dieter	CA	IAC-12.A1.2.17
Felsenberg, Dieter	CA	IAC-12.A1.2.20
Feng, Zhan-Zu	CA	IAC-12.C2.6.10
Fenoglio, Franco	CA	IAC-12.D3.1.2
Fergusson, Jennifer	CA	IAC-12.E1.7.3
Ferlazzo, Fabio	CA	IAC-12.A1.1.4
Ferlazzo, Fabio	CA	IAC-12.B3.5.6
Fernandes, Reuben	CA	IAC-12.A3.2D.30
Fernandes, Reuben	CA	IAC-12.B4.3.10
Fernandez Fraile, Jose Javier	CA	IAC-12.A2.5.1
Fernandez Fraile, Jose Javier	A	IAC-12.A2.5.7
Fernandez-Pello, A. Carlos	A	IAC-12.A2.2.2
Fernandez-Pello, A. Carlos	CA	IAC-12.A2.2.3
Ferraioli, Giuseppe	CA	IAC-12.A5.4.12
Ferraiuolo, Michele	CA	IAC-12.C4.3.4
Ferrari, Claudio	CA	IAC-12.E1.6.11
Ferrari, Claudio	CA	IAC-12.C4.7-C3.5.3
Ferrari, Giorgio	CA	IAC-12.D1.6.11
Ferrario, Ivan	CA	IAC-12.B4.4.2
Ferravante, Denise	CA	IAC-12.A1.1.4
Ferreira, Ivo	CA	IAC-12.A5.1.2
Ferrer Desclaux, David	CA	IAC-12.A1.2.15
Ferretti, Viviana	CA	IAC-12.C4.9.2
Ferri, Antonella	CA	IAC-12.A3.3B.4
Ferri, Ivana	CA	IAC-12.A1.7.2
Ferri, Paolo	CA	IAC-12.A3.4.1
Ferrigno, Francesco	CA	IAC-12.C4.1.1

Ferrino, Marinella	A	IAC-12.B3.2.10
Ferro, Adamo	CA	IAC-12.A3.5.8
Fertig, Markus	CA	IAC-12.A3.3C.11
Fessard, Morgane	CA	IAC-12.D2.2.1
Festa, Giandomenico	CA	IAC-12.C4.9.3
Fiamegkou, Eleni	A	IAC-12.C2.8.6
Ficai Veltroni, Iacopo	CA	IAC-12.A3.5.16
Fichter, Walter	CA	IAC-12.C1.1.7
Filatyev, Alexander S.	A	IAC-12.D2.5.7
Filiba, Terry	CA	IAC-12.A4.1.3
Finazzi, Vittoria	CA	IAC-12.D1.2.9
Finch, Alexander	CA	IAC-12.B4.6B.7
Findlay, Ross	A	IAC-12.A3.4.7
Findlay, Ross	CA	IAC-12.D1.6.1
Finkleman, David	A	IAC-12.C1.7.3
Finkleman, David	A	IAC-12.E7.7-B3.8.10
Finnegan, Eric J.	CA	IAC-12.C1.5.6
Finnegan, Eric J.	CA	IAC-12.A3.5.1
Finocchietti, Chiara	A	IAC-12.D2.3.12
Finocchietti, Chiara	CA	IAC-12.A5.4.5
Finzi, Amalia Ercoli	CA	IAC-12.A3.4.18
Fiorentino, Claudia A. M.	CA	IAC-12.B1.3.9
Fiorentino, Claudia A. M.	CA	IAC-12.B1.4.2
Fiorentino, Claudia A. M.	CA	IAC-12.B6.2.7
Fiorilli, Francesco	CA	IAC-12.E7.1.6
Fiorillo, Marco	CA	IAC-12.C4.2.1
Fisackerly, Richard	CA	IAC-12.A3.2D.18
Fisackerly, Richard	A	IAC-12.A3.2B.4
Fischer, Beth	CA	IAC-12.D2.8.9
Fitrianingsih, Ery	CA	IAC-12.B6.2.19
Fitz-Coy, Norman	CA	IAC-12.A6.3.7
Fitzgibbon, Laura	CA	IAC-12.A1.2.6
Fiumano', Antonino	CA	IAC-12.A3.3A.4
Flamini, Enrico	CA	IAC-12.B4.2.1
Flamini, Enrico	CA	IAC-12.C2.1.13
Flamini, Enrico	CA	IAC-12.A3.5.16
Flamini, Enrico	CA	IAC-12.B4.5.11
Flandin, Grégory	CA	IAC-12.B5.1.5
Flanigan, Sarah H.	CA	IAC-12.C1.5.6
Flegel, Sven Kevin	CA	IAC-12.A6.4.10
Flegel, Sven Kevin	CA	IAC-12.A6.5.3
Flohrer, Tim	CA	IAC-12.A6.1.16
Flohrer, Tim	CA	IAC-12.A6.2.17
Flores, Tim	CA	IAC-12.D2.8.3
Flores Cordova, Africa	A	IAC-12.B1.1.8
Flores Cordova, Africa	A	IAC-12.E3.2.3
Florin, Gunnar	CA	IAC-12.A2.3.4
Florin, Gunnar	CA	IAC-12.A2.3.6
Flynn, Michael	CA	IAC-12.A1.6.16
Flynn, Michael T.	CA	IAC-12.A2.3.16
Fogliano, Vincenzo	CA	IAC-12.A3.2D.36
Foing, Bernard	CA	IAC-12.A1.1.9
Foing, Bernard	CA	IAC-12.A1.2.3
Foing, Bernard	A	IAC-12.A3.2A.2
Foing, Bernard	CA	IAC-12.B3.2.8
Foing, Bernard	CA	IAC-12.A5.1.2
Foing, Bernard	CA	IAC-12.E5.2.7
Foing, Bernard	A	IAC-12.A1.5.6
Foing, Bernard	CA	IAC-12.A1.5.7
Foing, Bernard	CA	IAC-12.A5.3-B3.6.2
Foing, Bernard	CA	IAC-12.D4.4.2
Foing, Bernard	CA	IAC-12.E5.5A.3
Fomina, Elena	CA	IAC-12.A1.2.10
Fomina, Elena	A	IAC-12.A1.3.4
Fomkin, Paul	CA	IAC-12.A1.6.11
Fomkin, Paul	CA	IAC-12.A1.6.14
Fonseca, Jose	CA	IAC-12.A2.3.16
Fonteyne, Pierre-Alain	CA	IAC-12.B5.1.1
Forbes, James	CA	IAC-12.C1.8.7
Force, Melissa K.	A	IAC-12.E7.7-B3.8.8
Ford, John	CA	IAC-12.A4.1.3
Fordyce, Crystal	A	IAC-12.E1.8.1
Forest, Julien	CA	IAC-12.D5.3.14
Fork, Richard L.	A	IAC-12.D4.1.8
Fork, Richard L.	CA	IAC-12.C4.6.6
Fork, Richard L.	A	IAC-12.A6.7.6
Formaro, Roberto	CA	IAC-12.B1.3.8
Formaro, Roberto	CA	IAC-12.A3.5.16
Forrester, Crystal	CA	IAC-12.E1.9.2
Forster, Caroline	CA	IAC-12.B5.1.8
Fortezza, Raimondo	CA	IAC-12.A2.5.9
Fortov, Vladimir	CA	IAC-12.A2.6.6
Fortov, Vladimir	CA	IAC-12.A2.7.6
Fortunato, Antonio	A	IAC-12.B6.1.2
Fossati, F.A.	CA	IAC-12.A6.7.2
Foth, Wolf-Peter	CA	IAC-12.A6.5.18
Foucher, Frederic	CA	IAC-12.A1.5.1
Foulon, Bernard	CA	IAC-12.A2.1.1
Foulon, Bernard	A	IAC-12.B1.3.4
Fowler, Gary	CA	IAC-12.B1.1.1
Fox, Nicola	CA	IAC-12.A3.5.2
Fraga de Campos Velho, Haroldo	CA	IAC-12.A3.4.15
Fragiacomo, Manrico	CA	IAC-12.C4.3.4
Frame, Tom	CA	IAC-12.A3.4.16
Framis, Alicia	CA	IAC-12.E5.5A.3
Francesco, Giliberti	CA	IAC-12.C4.2.1
Francesconi, Alessandro	CA	IAC-12.D1.2.7
Francesconi, Alessandro	CA	IAC-12.D1.2.8
Francesconi, Daniele	CA	IAC-12.C2.4.1
Franchi, Ian	CA	IAC-12.A3.4.9
Francis, Raymond	A	IAC-12.A3.3B.10
Francis, Raymond	CA	IAC-12.A5.3-B3.6.3
FRANCOIS, CAHUZAC	A	IAC-12.E7.5.13
Franzen, Roger	CA	IAC-12.B5.2.8
Fraser, Katelyn	A	IAC-12.A1.2.6
Frattare, Lisa	CA	IAC-12.E1.8.5
Fraze, Bud	CA	IAC-12.A1.5.5
Frazier, Cameron	CA	IAC-12.A3.3A.16
Frederic, Vinciguerra	CA	IAC-12.B2.4.8
Frederic, Vinciguerra	CA	IAC-12.B2.4.8
Free, James	CA	IAC-12.D2.3.2
Free, James	CA	IAC-12.D2.3.11
Freeborn, Peter	CA	IAC-12.D2.2.10
Freeland, Steven	CA	IAC-12.E7.3.8
Freestone, Todd	CA	IAC-12.A3.2C.1
Freiderich, Kerianna	A	IAC-12.D5.3.1
Freuville, Nicolas	CA	IAC-12.A2.3.9
Friedensen, Victoria	CA	IAC-12.A3.1.5
Friedman, Louis	A	IAC-12.D4.1.3
Friedman, Louis	CA	IAC-12.A1.5.5
Friedman, Louis	CA	IAC-12.A5.4.11
Friedman, Louis	A	IAC-12.B4.8.1
Frigeri, Alessandro	CA	IAC-12.A3.5.8
Frings, Petra	CA	IAC-12.A1.2.16
Frischauf, Norbert	CA	IAC-12.B2.3.6
Frischauf, Norbert	CA	IAC-12.B2.5.4
Frischauf, Norbert	CA	IAC-12.B2.5.5
Friso, Enrico	CA	IAC-12.C2.2.6
Friso, Enrico	CA	IAC-12.A3.3C.1
Fritz, Andreas	CA	IAC-12.A5.2.6
Fritz, Michael	CA	IAC-12.C3.4.6
Fritz, Michael	CA	IAC-12.D1.6.9
Froehlich, Annette	A	IAC-12.E7.4.7
Fromberg, Alan	A	IAC-12.B5.2.9
Fry, Emma	A	IAC-12.E5.5B.3
Früh, Carolin	A	IAC-12.A6.2.6
Fuchao, Hu	CA	IAC-12.B6.3.7
Fugger, Susanne	CA	IAC-12.D1.6.2
Fuglesang, Christer	CA	IAC-12.A1.1.24
Fuglesang, Christer	A	IAC-12.B3.3.5
Fujii, Ryosuke	A	IAC-12.D1.2.1
Fujimoto, Kohei	A	IAC-12.C1.6.11
Fujino, Yoshiyuki	A	IAC-12.B2.2.6
Fujino, Yoshiyuki	CA	IAC-12.B2.4.3
Fujino, Yoshiyuki	CA	IAC-12.B2.5.6
Fujisaki, Kiyotaka	CA	IAC-12.B4.3.6
Fujishima, Toyohisa	CA	IAC-12.E1.2.4
Fujita, Koki	A	IAC-12.A6.1.7
Fujita, Osamu	A	IAC-12.A2.2.2
Fujita, Takeshi	CA	IAC-12.D2.1.9
Fujita, Tatsuhito	CA	IAC-12.C3.2.5
Fujita, Tatsuhito	A	IAC-12.C3.3.6
Fukuda, Kazufumi	CA	IAC-12.A6.4.5
Fukuda, Kazufumi	CA	IAC-12.B4.7A.5
Fukuda, Kazufumi	CA	IAC-12.D1.6.4
Fukuda, Seisuke	CA	IAC-12.A3.2D.23
Fukudo, Shin	CA	IAC-12.A1.1.13
Fukudo, Shin	CA	IAC-12.E5.4.5
Fukui, Norio	CA	IAC-12.B3.4-B6.5.7
Fukunaga, Hisao	CA	IAC-12.C2.5.6
Fukunari, Masafumi	CA	IAC-12.C4.3.10
Fukunari, Masafumi	CA	IAC-12.C4.8.7
Fukunari, Masafumi	CA	IAC-12.C4.8.10
Fukuyama, Masato	CA	IAC-12.A6.4.5
Fukuyama, Masato	CA	IAC-12.D1.6.4
Fukuyama, Takeshi	CA	IAC-12.C1.3.10
Fumagalli, Alessandro	CA	IAC-12.A3.3B.8
Fumagalli, Alessandro	A	IAC-12.A3.3C.3
Funaki, Ikkoh	CA	IAC-12.C2.4.20
Funaki, Ikkoh	CA	IAC-12.C4.8.11
Funase, Ryu	CA	IAC-12.D1.1.3
Funase, Ryu	CA	IAC-12.C1.6.3
Funase, Ryu	A	IAC-12.C1.9.8
Funtova, Irina	CA	IAC-12.A1.2.2
Funtova, Irina	A	IAC-12.A1.2.18
Funtova, Irina	CA	IAC-12.A1.2.21
Funtova, Irina	CA	IAC-12.A1.2.22
Furuya, Hiroshi	A	IAC-12.C2.4.22
Föckersperger, Stefan	CA	IAC-12.B4.6A.1
Förstner, Roger	CA	IAC-12.D1.4.9
Förstner, Roger	CA	IAC-12.A3.5.7
Förstner, Roger	CA	IAC-12.D1.6.2

G

Name	Role	Paper
G K, Rama Murali	CA	IAC-12.A3.2A.1
G K, Rama Murali	CA	IAC-12.A3.2B.3
G. De la Torre, Gabriel	A	IAC-12.A1.1.18
G. De la Torre, Gabriel	A	IAC-12.A4.2.6
Gaaloul, Naceur	CA	IAC-12.A2.1.6
Gaaloul, Naceur	CA	IAC-12.A2.1.10
Gaaloul, Naceur	A	IAC-12.A2.1.13
Gaaloul, Naceur	CA	IAC-12.A2.3.14
Gabbani, Matteo	CA	IAC-12.C4.4.25
Gabriel, Stephen	CA	IAC-12.C4.4.9
Gabrielli, Alessandro	CA	IAC-12.B4.5.11
Gabrielli, Roland Antonius	A	IAC-12.E1.6.11
Gabrielli, Roland Antonius	CA	IAC-12.C4.7-C3.5.3
Gabrielli, Roland Antonius	A	IAC-12.C4.7-C3.5.6
Gabrielyan, David	A	IAC-12.C3.3.13
Gaglione, Salvatore	A	IAC-12.B2.6.6
Gagnon, Eric	CA	IAC-12.C1.1.6
Gajdachuk, Vitalij	CA	IAC-12.C2.4.6
Gajere, Efron	CA	IAC-12.B1.5.4
Gala, Jean-Luc	CA	IAC-12.B5.1.1
Galand, Quentin	A	IAC-12.A2.2.21
Galand, Quentin	CA	IAC-12.A2.3.7
Galand, Quentin	CA	IAC-12.A2.4.6
Galand, Quentin	CA	IAC-12.A2.6.2
Galand, Quentin	A	IAC-12.A2.6.5
Galati, Francesco	CA	IAC-12.E5.1.2
Gale, Leslie	A	IAC-12.B5.1.4
Galfetti, Luciano	A	IAC-12.C4.2.9
Galfetti, Luciano	CA	IAC-12.C4.2.25
Galfetti, Luciano	A	IAC-12.C4.2.27
Gallagher, Daniel T.	CA	IAC-12.C1.5.6
Gallego Sanz, Jose Maria	CA	IAC-12.D2.6.2
Gallois, Remy	CA	IAC-12.B5.1.8
Gallucci, Stefano	CA	IAC-12.D2.1.2
Galvanetto, Ugo	CA	IAC-12.C2.4.8
Gambacciani, Giovanni	CA	IAC-12.A6.7.2
gambheer rao, Chandrakant	CA	IAC-12.A1.5.12
Ganeshan, Ailyam Subramaniam	CA	IAC-12.B2.6.2
Gao, Dong	CA	IAC-12.B2.2.17
Gao, Peng	CA	IAC-12.A3.2A.6
GAO, WEI	A	IAC-12.B6.2.3
Gao, Xiaoying	CA	IAC-12.A1.4.12
Gao, Xin	CA	IAC-12.C2.6.10
Gao, Yang	A	IAC-12.A3.4.16
Gao, Yang	CA	IAC-12.C1.8.4
Gao, Yongsheng	CA	IAC-12.C1.2.4
Gaofeng, Ren	A	IAC-12.A3.3C.9
Gaponenko, Yuri	CA	IAC-12.A2.3.12
Gappmair, Wilfried	CA	IAC-12.B2.4.7
Garbeil, Harold	CA	IAC-12.A3.2C.7
Garber, Darren	CA	IAC-12.D4.1.3
Garcia Yarnoz, Daniel	CA	IAC-12.E2.3.7
Garcia Yarnoz, Daniel	CA	IAC-12.C1.5.13
Garcia-Taberner, Laura	A	IAC-12.C1.6.5
García del Poyo, Rafael	CA	IAC-12.E7.4.8
García-de-Quirós, Francisco	A	IAC-12.D1.2.9
García-de-Quirós, Francisco	A	IAC-12.A3.2D.13
García-de-Quirós, Francisco	A	IAC-12.B4.7A.6
Gardi, Roberto	CA	IAC-12.C2.1.16
Gardi, Roberto	A	IAC-12.C2.4.3
Gardi, Roberto	CA	IAC-12.C2.7.6
Gardi, Roberto	CA	IAC-12.C2.9.11
Gardini, Bruno	A	IAC-12.A3.1.6
Gardini, Bruno	CA	IAC-12.A3.2D.18
Gardini, Bruno	CA	IAC-12.A3.2B.4
Gargano, Mark	A	IAC-12.E1.2.12
Garrabos, Yves	A	IAC-12.A2.6.9
Garshin, Vladimir	CA	IAC-12.B3.2.5
Garvin, James	CA	IAC-12.B2.2.12
Gasbarri, Paolo	CA	IAC-12.C2.2.3
Gasbarri, Paolo	CA	IAC-12.C2.2.8
Gasbarri, Paolo	CA	IAC-12.C2.2.11
Gasbarri, Paolo	A	IAC-12.C2.3.6
Gasbarri, Paolo	CA	IAC-12.C1.8.11
Gast, Ulf	A	IAC-12.A1.2.20
Gaubert, Jean-Marc	A	IAC-12.B5.1.8
Gaudenzi, Paolo	CA	IAC-12.B4.4.4
Gaudenzi, Paolo	CA	IAC-12.C2.5.7
Gauer, Markus	A	IAC-12.B4.6A.8
Gautam, Abhimat	CA	IAC-12.A4.1.2
Gautam, Abhimat	CA	IAC-12.A4.1.3
Gautier, Philippe	A	IAC-12.C4.2.7
Gavaldà, Josefina	CA	IAC-12.A2.6.1
Gavira Izquierdo, José	CA	IAC-12.D1.5.3
Gavira Izquierdo, José	CA	IAC-12.D2.6.10
Gavira Izquierdo, José	CA	IAC-12.C2.7.6
Gaviraghi, Giorgio	A	IAC-12.D4.1.6
Gavronski, Georg	A	IAC-12.A1.2.24
Geelen, Kelly	CA	IAC-12.A3.3B.7
Geffroy, Benoit	CA	IAC-12.B4.5.10
Gelhaus, Johannes	CA	IAC-12.A6.2.4
Gelhaus, Johannes	CA	IAC-12.A6.3.2
Gelhaus, Johannes	CA	IAC-12.A6.4.8
Gelhaus, Johannes	CA	IAC-12.A6.4.10
Gelhaus, Johannes	CA	IAC-12.A6.5.3
Gellert, Ralf	CA	IAC-12.A3.3A.7
Genchi, Giada	A	IAC-12.A1.7.11
Genito, Tonino	CA	IAC-12.D2.5.4
Gennaro, Esposito	CA	IAC-12.A2.5.9
Genta, Giancarlo	A	IAC-12.A5.3-B3.6.8
Georgakas, Stavros	CA	IAC-12.E3.1.4
Georgakas, Stavros	A	IAC-12.B1.5.8
GERBER, Bernard	CA	IAC-12.A6.5.9
Gerber, Bernard	CA	IAC-12.A6.7.4
GERBER, Bernard	A	IAC-12.A6.7.7
Gergonne, Bernard	CA	IAC-12.A6.4.4
GERHARD, Michael	CA	IAC-12.D6.1.10
Germain, Mickael	CA	IAC-12.E2.1.7
Germani, Tarquinio	A	IAC-12.C4.9.1
Gerndt, Andreas	A	IAC-12.D1.3.7
Gerrits, Dennis	CA	IAC-12.B4.4.7
Gershovich, Pavel	CA	IAC-12.A1.7.9
Gerzer, Rupert	CA	IAC-12.A1.2.5

Gerzer, Rupert	CA	IAC-12.A1.2.11
Gerzer, Rupert	CA	IAC-12.E1.4.6
Gerzer, Rupert	CA	IAC-12.A1.6.12
Gerzer, Rupert	CA	IAC-12.A1.8.5
Gettliffe, Gwendolyn	CA	IAC-12.E3.2.10
Gevorgyan, Yana	CA	IAC-12.E3.2.2
Ghadaki, Farnaz	A	IAC-12.A1.3.11
Ghadaki, Farnaz	A	IAC-12.E6.3.6
Ghadawala, Rushi	A	IAC-12.E3.2.6
Ghadawala, Rushi	A	IAC-12.B1.4.10
Ghadawala, Rushi	A	IAC-12.A6.6.4
Ghafoor, Nadeem	CA	IAC-12.A3.3B.5
Ghafoor, Nadeem	CA	IAC-12.A5.3-B3.6.3
Ghafoor, Nadeem	CA	IAC-12.A3.2C.2
Ghafoor, Nadeem	CA	IAC-12.A3.2C.5
Gharib, Nima	A	IAC-12.C2.6.4
Ghasemzadeh, Leila	CA	IAC-12.B2.3.10
Ghazanfarinia, Sajjad	A	IAC-12.E1.9.8
Gholian, Hossein	CA	IAC-12.D1.1.13
Giacoppo, Giosuè	CA	IAC-12.C3.3.5
Giancotti, Marco	A	IAC-12.C1.6.3
Gianfiglio, Giacinto	CA	IAC-12.A3.3A.3
Giannopapa, Christina	A	IAC-12.E3.3.8
Gianvito, Antonio	CA	IAC-12.C4.3.4
Gicquel, Anne-Hélène	CA	IAC-12.D2.2.1
Giddens, Patrick	A	IAC-12.C4.7-C3.5.7
Gil-Fernandez, Jesus	A	IAC-12.C1.3.8
Gil-Fernandez, Jesus	A	IAC-12.A3.4.19
Gill, Eberhard	CA	IAC-12.C1.1.12
Gill, Eberhard	CA	IAC-12.D1.2.3
Gill, Eberhard	A	IAC-12.B4.7B.5
Gill, Eberhard	CA	IAC-12.D1.4.2
Gill, Eberhard	CA	IAC-12.D1.4.5
Gill, Eberhard	CA	IAC-12.C4.6.2
Gill, Eberhard	CA	IAC-12.B2.6.10
Gill, Tracy	CA	IAC-12.D3.2.6
Gily, Alessandro	CA	IAC-12.A3.3C.3
Ginati, Amnon	CA	IAC-12.B4.4.1
Ginati, Amnon	CA	IAC-12.B5.1.4
Ginesi, Alberto	CA	IAC-12.B4.4.1
Ginsberg, Margery	CA	IAC-12.E1.2.11
Gioia, Ciro	CA	IAC-12.B2.6.6
Gioia, Marina	CA	IAC-12.B2.6.1
Giordano, Domenico	CA	IAC-12.A2.5.9
Girard, Denis	CA	IAC-12.A1.8.9
Giuliani, Simone	CA	IAC-12.A3.3A.21
Giuliati Winter, Silvia Maria	A	IAC-12.A3.5.21
Giuseppe, Caggiano	CA	IAC-12.C4.1.2
Giusti, Nicola	CA	IAC-12.C4.4.7
Giusti, Nicola	CA	IAC-12.C4.4.22
Giusti, Nicola	CA	IAC-12.C4.4.23
Giusti, Nicola	CA	IAC-12.C4.4.27
Giusti, Nicola	CA	IAC-12.A1.8.15
Gleeson, Daniel	A	IAC-12.D2.6.14
Gleyzes, Alain	CA	IAC-12.B1.2.5
Gleyzes, Alain	CA	IAC-12.B1.3.1
Gleyzes, Alain	CA	IAC-12.B6.2.8
Gleyzes, Alain	CA	IAC-12.C1.8.8
Goemaere, Sophie	CA	IAC-12.A5.2.1
Goetzelmann, Martin	CA	IAC-12.B2.1.3
Goita, Kalifa	CA	IAC-12.E2.1.7
Golda, Carlo	A	IAC-12.E7.4.3
Goldberg, Mitchell	CA	IAC-12.B1.2.1
Golikov, Alexander	A	IAC-12.D5.1.8
Goller, Ulrike	CA	IAC-12.A1.8.5
Golroo, Ali Akbar	CA	IAC-12.E7.2.13
Golubtsova, Natalia	A	IAC-12.A6.2.10
Gomes, Luis	CA	IAC-12.B1.2.10
Gomes, Natanael Rodrigues	CA	IAC-12.B4.1.5
Gomes, Natanael Rodrigues	CA	IAC-12.B1.3.12
Gomes, Natanael Rodrigues	CA	IAC-12.C3.4.10
Gomes, Vivian	CA	IAC-12.C1.7.12
Gomez, Gerard	CA	IAC-12.C1.6.7
Gomez, Gerard	CA	IAC-12.C1.6.9
Gommel, Udo	CA	IAC-12.A1.5.10
Gondoin, Philippe	CA	IAC-12.C1.8.2
Gong, Chunlin	A	IAC-12.D2.4.14
Gonzales, Javier	A	IAC-12.D1.6.7
Gonçalves, David	A	IAC-12.A1.8.9
Goodhead, Dudley	A	IAC-12.A1.4.6
Goodhead, Linda	CA	IAC-12.A1.4.6
Goodsell, Aga	CA	IAC-12.D2.8.9
Gopinath, N.S.	CA	IAC-12.C1.2.3
Gopinath, N.S.	CA	IAC-12.C1.5.4
Goroshin, Sam	CA	IAC-12.A2.3.2
Goswami, Adwaita	CA	IAC-12.A3.2B.9
Goswami, Nandu	CA	IAC-12.A1.2.15
Gotzig, Ulrich	CA	IAC-12.B4.6A.8
Govindaiah, Swetha	CA	IAC-12.E1.8.1
Grande, Jøran	CA	IAC-12.E1.3.11
Grande, Jøran	CA	IAC-12.B2.4.9
Grandry, Pieterjan	CA	IAC-12.A5.1.2
Grandry, Pieterjan	CA	IAC-12.E5.5A.3
Grant, David	CA	IAC-12.A3.5.1
Grassi, Michele	CA	IAC-12.C1.4.7
Grassi, Michele	A	IAC-12.C1.3.4
Grassi, Michele	CA	IAC-12.A6.5.8
Grassi, Michele	CA	IAC-12.C1.9.1
Grassini, Francesco	CA	IAC-12.B3.3.11
Grassini, Sabrina	CA	IAC-12.C2.8.1
Grasso, Alessandro	A	IAC-12.E2.1.6
Grasso, Antonella	CA	IAC-12.C4.4.23
Graves, John	CA	IAC-12.A6.2.14
Graves, Mike	CA	IAC-12.A3.2B.2
Gray, James	A	IAC-12.D2.2.3
Grayson, Kristian	A	IAC-12.A3.1.9
Graziani, Alberto	CA	IAC-12.B2.1.10
Graziani, Alberto	CA	IAC-12.C3.4.8
Graziani, Filippo	CA	IAC-12.A1.4.18
Graziani, Filippo	CA	IAC-12.B4.5.7
Graziano, Maria Daniela	A	IAC-12.C1.5.2
Graziano, Maria Daniela	CA	IAC-12.B1.6.9
Graziano, Mariella	CA	IAC-12.A3.4.19
Graziola, Giancarlo	A	IAC-12.E3.3.5
Green, Simon	CA	IAC-12.A3.4.9
Greenland, Steve	CA	IAC-12.B1.2.17
Gregnanin, Marco	A	IAC-12.A3.3A.21
Gregory, Frederick	CA	IAC-12.D5.1.5
Gregory, Steve	CA	IAC-12.A6.1.21
Grenon, Marlene	A	IAC-12.A1.7.10
Grenon, Marlene	CA	IAC-12.A1.8.6
Gresham, Elaine	CA	IAC-12.E6.1.5
Gridchina, Tatiana	CA	IAC-12.A6.2.10
Griffin, Joanna	A	IAC-12.B4.8.12
Griffin, Joanna	A	IAC-12.E5.5A.4
Griffin, Robert	CA	IAC-12.B1.4.14
Grigoriev, Anatoly I.	A	IAC-12.A1.3.6
Grigoriev, Anatoly I.	CA	IAC-12.A1.7.9
Groemer, Gernot	CA	IAC-12.A5.2.6
Groen, Eric	A	IAC-12.A1.8.13
Groenewald, Ben	CA	IAC-12.E1.2.1
Gros, Jean-Christophe	A	IAC-12.B1.1.4
Grosjean, Olivier	CA	IAC-12.A2.1.4
Gross, Jeremy	CA	IAC-12.A6.2.3
Grosse, Jens	A	IAC-12.A2.5.5
Grunder, Zachary	CA	IAC-12.E2.3.1
Grunder, Zachary	CA	IAC-12.E2.3.6
Grundtisch, Jeffrey	CA	IAC-12.E2.3.6
Gu, Jiho	CA	IAC-12.A2.6.7
Gu, Liangxian	CA	IAC-12.D2.4.14
Gu, Zhenfeng	A	IAC-12.B1.3.18
Guan, Gongshun	A	IAC-12.A6.3.14
Guan, Gongshun	A	IAC-12.A6.3.18
Guelman, Mauricio Moshe	CA	IAC-12.C1.5.3
Guendugov, Vladimir	CA	IAC-12.A2.2.13
Guerman, Anna	CA	IAC-12.D4.3.9
Guerrant, Daniel	A	IAC-12.C4.3.2
Guerrucci, Damiano	CA	IAC-12.D5.2.4
Guerrucci, Damiano	CA	IAC-12.D5.2.10
Guest, Mike	CA	IAC-12.A3.3B.8

Gueubel, Roland	A	IAC-12.B5.1.1
Guidi, Andrea	A	IAC-12.D5.2.7
Guidotti, Giuseppe	CA	IAC-12.D2.4.1
Guijarro, Nuria	CA	IAC-12.A6.1.15
Guil, Rocio	CA	IAC-12.A1.1.18
Guillen Salas, Alberto	CA	IAC-12.A6.5.11
Guillen Salas, Alberto	CA	IAC-12.B4.6B.11
Guiraudon, Jean-Claude	CA	IAC-12.E1.9.1
Gul, Jamal	A	IAC-12.C2.8.11
Gump, David	A	IAC-12.A3.2A.7
Guo, Gaofeng	A	IAC-12.C2.3.16
Guo, Jian	CA	IAC-12.A3.2D.3
Guo, Jian	CA	IAC-12.B4.7B.5
Guo, Jian	A	IAC-12.D1.4.2
Guo, Jian	CA	IAC-12.D1.4.5
Guo, Qing-Yang	A	IAC-12.C4.5.13
Guo, Yanming	CA	IAC-12.C2.4.12
Gupta, Shraddha	CA	IAC-12.A6.2.16
Guptha Vivekanand, Nandyala	CA	IAC-12.A3.2D.30
Guptha Vivekanand, Nandyala	CA	IAC-12.B4.3.10
Gurau Tudoran, Matei	CA	IAC-12.A3.2B.4
Gurevich, Igor	A	IAC-12.A2.1.16
Gurfil, Pini	A	IAC-12.C1.2.9
Gurfil, Pini	A	IAC-12.C1.3.3
Gurzadyan, Vahagn	CA	IAC-12.B4.2.1
Gusev, Sergey	CA	IAC-12.B3.2.5
Gusev, Yuri	CA	IAC-12.D2.4.12
Gushin, Vadim	A	IAC-12.A1.1.2
Gushin, Vadim	CA	IAC-12.A1.1.7
Gushin, Vadim	CA	IAC-12.A1.1.8
Gustafsson, Stefan	CA	IAC-12.B5.2.6
Guthrie, Paul	A	IAC-12.E3.3.10
Guthrie, Paul	A	IAC-12.E6.1.2
Guthrie, Paul	CA	IAC-12.E6.1.5
Guthrie, Paul	CA	IAC-12.E6.2.8
Gutiérrez Nava, Antonio Eduardo	A	IAC-12.B1.2.11
Guven, Ugur	CA	IAC-12.B2.1.5
Guven, Ugur	A	IAC-12.D4.1.7
Guven, Ugur	CA	IAC-12.A3.3A.13
Guven, Ugur	CA	IAC-12.A1.4.19
Guven, Ugur	CA	IAC-12.D2.5.9
Guven, Ugur	CA	IAC-12.A3.5.13
Guven, Ugur	CA	IAC-12.C2.7.9
Guven, Ugur	CA	IAC-12.C2.7.11
Guven, Ugur	A	IAC-12.A5.4.13
Guzman, Camilo	A	IAC-12.E1.3.6
Guzman, Camilo	A	IAC-12.E3.4.9
Guzman, Camilo	A	IAC-12.E7.7-B3.8.9
Guzzetti, Davide	A	IAC-12.C1.6.1
Guédron, Sylvain	CA	IAC-12.C4.2.5
Guédron, Sylvain	A	IAC-12.D2.4.4
Guéguen, Bérengère	CA	IAC-12.E1.7.13
Guérin, Rahma	CA	IAC-12.A2.6.7
Gérard, Bruno	CA	IAC-12.D2.1.3
Göktoğan, Ali Haydar	A	IAC-12.A3.3B.11
Göktoğan, Ali Haydar	A	IAC-12.E1.3.5
Gölz, Nadine	CA	IAC-12.A1.7.5
Gülhan, Ali	CA	IAC-12.C2.1.10

H

Name	Role	Paper
H, Revathi	CA	IAC-12.C4.4.5
Haag, Sylvie	CA	IAC-12.B6.2.6
Haapala, Amanda	A	IAC-12.C1.7.2
Haarmann, Richard	CA	IAC-12.A3.2B.5
Haddad, Emile	CA	IAC-12.A3.3A.17
Haese, Marc	A	IAC-12.E7.7-B3.8.6
Haeuplik-Meusburger, Sandra	A	IAC-12.E5.3.6
Haeuplik-Meusburger, Sandra	A	IAC-12.E5.3.10
Hahn, Inseob	CA	IAC-12.A2.6.9
Hai, Huang	CA	IAC-12.D1.3.9
Haider, Olivia	A	IAC-12.E1.7.4
Hainaut, Jean-Philippe	A	IAC-12.A1.1.21
Hainaut, Jean-Philippe	CA	IAC-12.A1.1.22
Haines, Keith	CA	IAC-12.B5.1.4
Haiyang, Zhang	CA	IAC-12.C3.3.14
Hallikainen, Martti	CA	IAC-12.B4.2.11
Hallock, Amy	CA	IAC-12.D2.8.5
Hallowell, Ronan	CA	IAC-12.E1.9.5
Hama, Kazumori	CA	IAC-12.B4.6A.3
Hamamoto, Naokazu	A	IAC-12.B2.2.6
Hamamoto, Naokazu	CA	IAC-12.B2.5.6
Hammond, Monica	CA	IAC-12.A3.2C.1
Hamrah, Reza	CA	IAC-12.A6.4.11
Han, Chao	CA	IAC-12.D3.4.6
Han, Haiying	CA	IAC-12.C2.6.3
Han, Jianbin	A	IAC-12.B4.6A.10
Han, Songtao	CA	IAC-12.B2.2.16
Han, Songtao	CA	IAC-12.B2.5.12
Han, Taro	A	IAC-12.C4.6.8
Han, Taro	CA	IAC-12.E1.9.2
Hanada, Toshiya	CA	IAC-12.A6.1.14
Hanada, Toshiya	CA	IAC-12.A6.5.1
Hannan, Michael	CA	IAC-12.A3.2C.1
Hannigan, Allison Rae	A	IAC-12.E1.8.2
Hannu, Leppinen	CA	IAC-12.D1.6.9
Hansen, Arne Hjalmar	CA	IAC-12.E1.3.11
Hansen, Rik	A	IAC-12.E7.1.10
Hansson, Conny	A	IAC-12.D1.2.12
Hao, Ping	A	IAC-12.B3.7.7
Harada, Nob	CA	IAC-12.C4.4.16
Harp, Gerald (Gerry)	A	IAC-12.A4.1.4
Harris, Alan	CA	IAC-12.A3.4.11
Harris, Daniel	CA	IAC-12.A3.2C.1
Harris, MBA, MFA, Tracy	CA	IAC-12.E1.5.14
Hartevelt-Velani, Shamim	A	IAC-12.E1.1.3
Hartl, Alexandre	CA	IAC-12.A3.3C.7
Hartline, Thomas	A	IAC-12.B2.2.5
Hartline, Thomas	A	IAC-12.C4.7-C3.5.2
Hartwig, Alex	CA	IAC-12.C4.2.8
Harvey, T. Jeffrey	CA	IAC-12.B4.6B.1
Hasegawa, Katsuya	CA	IAC-12.A1.3.3
Hasegawa, Shitoshi	CA	IAC-12.B3.4-B6.5.7
Hasegawa, Yoshiyuki	A	IAC-12.B3.1.5
Hashemi Pour, Banafsheh	A	IAC-12.C2.4.21
Hashimoto, Tatsuaki	CA	IAC-12.A3.2D.15
Hashimoto, Tatsuaki	A	IAC-12.A3.2B.1
Hashimoto, Tomoyuki	CA	IAC-12.C4.1.8
Hashimoto, Tomoyuki	CA	IAC-12.C4.5.1
Haslam, David	CA	IAC-12.A3.2C.10
Hatcher, Richard	A	IAC-12.C4.8.4
Hatton, Jason	CA	IAC-12.B3.3.5
Haubold, Hans	CA	IAC-12.E3.2.8
Hauslage, Jens	CA	IAC-12.A5.2.4
Hauslage, Jens	CA	IAC-12.A1.6.20
Hausmann, Gerrit	CA	IAC-12.A3.2C.8
Haya Ramos, Rodrigo	CA	IAC-12.D2.3.5
Hayakawa, Yukio	CA	IAC-12.C4.4.26
Hayakawa, Yukio	CA	IAC-12.A6.7.10
Hayashi, Yoriko	CA	IAC-12.E1.2.10
He, YueLong	A	IAC-12.C2.7.21
He, YueLong	A	IAC-12.C2.7.22
He, YueLong	CA	IAC-12.C2.7.26
He, Zhen	CA	IAC-12.C4.4.17
He, Zhen	CA	IAC-12.C4.8.6
He, Zhen	CA	IAC-12.C4.8.9
He, Zhen	CA	IAC-12.C4.8.12
Heather, David	CA	IAC-12.D5.2.8
Heckmann, Alexander	CA	IAC-12.E1.6.8
Heer, Martina	CA	IAC-12.A1.2.16
Heeren, Emil	CA	IAC-12.E1.4.5
Hegde, Prajna	CA	IAC-12.E2.3.2
Hegde, Pramoda	CA	IAC-12.B6.3.11
Hegde, Pramoda	CA	IAC-12.B6.2.10
Heidegger, Ferdinand	CA	IAC-12.E1.2.2
Heidmann, Richard	A	IAC-12.D5.1.9
Heiligers, Jeannette	A	IAC-12.C1.4.2
Hein, Andreas	CA	IAC-12.D1.3.3

Hein, Andreas	CA	IAC-12.A6.5.7
Hein, Andreas	A	IAC-12.D4.3.10
Heinsheimer, Thomas	CA	IAC-12.D4.1.3
Hellweg, Christine	A	IAC-12.E1.4.6
Hellweg, Christine	A	IAC-12.A1.4.5
Helms, William	A	IAC-12.E4.3B.5
Henderson, John	CA	IAC-12.A6.2.14
Hendrikse, Dipl. Ing. Jeffrey	CA	IAC-12.A5.1.2
Hendrikse, Dipl. Ing. Jeffrey	CA	IAC-12.A5.3-B3.6.2
Hendrikse, Dipl. Ing. Jeffrey	A	IAC-12.A3.2C.10
Heng, Gang	CA	IAC-12.A3.3A.5
Henn, Norbert	CA	IAC-12.A3.2B.10
Henry, Andrew	CA	IAC-12.D4.4.6
Henry, Stéphane	CA	IAC-12.C4.2.7
Henry, Stéphane	A	IAC-12.C4.9.8
Henze, Stacy	A	IAC-12.E5.3.7
Herath, Jeff	CA	IAC-12.D2.8.9
Herdrich, Georg	CA	IAC-12.C4.4.15
Herdrich, Georg	CA	IAC-12.E1.6.11
Herdrich, Georg	CA	IAC-12.B4.8.8
Herdrich, Georg	CA	IAC-12.C4.7-C3.5.3
Herdrich, Georg	CA	IAC-12.C4.7-C3.5.6
Herdrich, Georg	CA	IAC-12.C4.7-C3.5.8
Herdrich, Georg	CA	IAC-12.A3.3C.11
Herdy, Claire	A	IAC-12.B1.1.9
Herdy, Claire	A	IAC-12.B1.5.9
Herman, Jon	CA	IAC-12.E1.4.5
Hernandez, J. Eduardo	CA	IAC-12.A3.5.15
Hernandez-Lugo, Dionne M.	A	IAC-12.C3.3.15
Hernández Lebrón, Yaritza	A	IAC-12.C3.3.12
Hernández Villatoro, Rafael	CA	IAC-12.E3.1.4
Hernández Villatoro, Rafael	CA	IAC-12.B1.5.8
Hernández-Guerra, Alonso	CA	IAC-12.B1.5.5
Herrmann, Nicole	A	IAC-12.E6.4-D4.2.9
Herrmann, Sven	CA	IAC-12.A2.1.6
Herrmann, Sven	A	IAC-12.A2.1.7
Herrmann, Sven	CA	IAC-12.A2.1.9
Herrmann, Sven	CA	IAC-12.A2.1.13
Hertzfeld, Henry	A	IAC-12.E3.3.2
Hertzfeld, Henry	A	IAC-12.E7.3.1
Herzing, Denise	A	IAC-12.A4.2.8
Herzog, Frank	CA	IAC-12.E1.6.8
Herzog, Johannes	A	IAC-12.A6.1.5
Hess, Marc Peter	A	IAC-12.B1.2.14
Heusdens, Richard	A	IAC-12.B2.6.10
Hew, Yayu Monica	A	IAC-12.C2.5.8
Hewitt, Robert	A	IAC-12.A3.3A.16
Hickman, Robert	CA	IAC-12.C4.7-C3.5.4
Hidalgo Jiménez, Borja	A	IAC-12.E1.7.5
Hienz, Robert	CA	IAC-12.A1.1.11
Higgins, Andrew	CA	IAC-12.A2.3.2
Hill, Anna	A	IAC-12.E1.6.1
Hill, Joanne	CA	IAC-12.E2.1.2
Hill, Lawrence	CA	IAC-12.A3.2C.1
Hinds, Emma	A	IAC-12.D2.4.13
Hinds, Emma	CA	IAC-12.E6.1.5
Hinds, Emma	A	IAC-12.YPVF.2.5
Hinze, Andreas	A	IAC-12.A6.1.16
Hipkin, Victoria	CA	IAC-12.E2.1.7
Hiraiwa, Tetsuo	CA	IAC-12.D1.4.10
Hiraiwa, Tetsuo	CA	IAC-12.C4.5.1
Hiraki, Hiromichi	A	IAC-12.C4.1.8
Hirako, Kei-ichi	A	IAC-12.E6.2.6
Hirako, Keiichi	CA	IAC-12.C1.3.10
Hirako, Keiichi	CA	IAC-12.B4.6A.2
Hirako, Keiichi	CA	IAC-12.C1.9.3
Hirata, Yoshihide	A	IAC-12.C4.2.26
Hirn, Attila	CA	IAC-12.A1.4.16
Hirn, Attila	CA	IAC-12.C2.7.16
Hirohama, Eijiro	CA	IAC-12.E1.2.10
Hiromori, Yuichi	A	IAC-12.D1.2.2
Hirose, Noboru	CA	IAC-12.A1.3.3
Hisadome, Yasushi	CA	IAC-12.B3.1.5
Hisamoto, Yasuyoshi	A	IAC-12.C4.4.10
Hit'ko, Andriy	A	IAC-12.A6.5.16
Ho, Tra-Mi	CA	IAC-12.A3.4.7
Hock, Daniela	CA	IAC-12.B6.3.2
Hockenberry, Thomas	A	IAC-12.E5.2.2
Hockenberry, Thomas	A	IAC-12.E5.2.5
Hockey, Robert	CA	IAC-12.A1.2.11
Hodgson, Cory	A	IAC-12.E1.9.7
Hodon, Michal	A	IAC-12.B2.6.4
Hoefner, Herwig	CA	IAC-12.A2.7.6
Hoff, Harold	A	IAC-12.B1.1.4
Hoffman, Edward J.	A	IAC-12.E1.5.2
Hoffman, Jeffrey	CA	IAC-12.A3.2D.19
Hoffman, Jeffrey	CA	IAC-12.A3.3A.9
Hoffman, Jeffrey	CA	IAC-12.A1.6.8
Hoffmann, Alexander	CA	IAC-12.B6.2.16
Hofmann, Mahulena	A	IAC-12.E7.5.15
Hofmann, Peter	A	IAC-12.A3.2B.5
Hofmann, Peter	A	IAC-12.A6.5.29
Hofmann, Peter	A	IAC-12.A2.7.6
Hogue, M.D.	CA	IAC-12.A3.2A.9
Hoheneder, Waltraut	CA	IAC-12.E5.3.8
Holley, Rachel	CA	IAC-12.B5.2.9
Holloway, Todd	CA	IAC-12.A3.2C.1
Holm, Jeanne	CA	IAC-12.B1.4.6
Holm, Jeanne	CA	IAC-12.D4.4.1
Holm, Jeanne	A	IAC-12.D5.2.1
Holm, Jeanne	CA	IAC-12.D5.2.12
Holm, Kaitlyn	A	IAC-12.B1.4.6
Holm, Kevin	A	IAC-12.D4.4.1
Holt, Benjamin	CA	IAC-12.B1.5.2
Homeister, Maren	CA	IAC-12.C1.3.8
Homma, Yukihiro	CA	IAC-12.C3.2.4
Honecker, Fabian	CA	IAC-12.E2.3.4
Hong, SeungBum	A	IAC-12.D1.4.3
Hong, Yan	CA	IAC-12.C4.5.8
Hongfei, He	A	IAC-12.A3.3A.15
Hongfeng, Wang	A	IAC-12.B2.1.14
Hongwei, Liu	A	IAC-12.B1.2.15
Honma, Naohiko	CA	IAC-12.D2.3.3
Hope, Drew	CA	IAC-12.A3.5.17
Hoping, Matthias	A	IAC-12.D1.3.11
Hopkins, Josh	A	IAC-12.A5.4.4
Horbury, Timothy S.	CA	IAC-12.B4.2.4
Hori, Hideaki	CA	IAC-12.C2.2.9
Horneck, Gerda	CA	IAC-12.A1.2.11
Hornig, Andreas	CA	IAC-12.A3.1.9
Hornig, Andreas	A	IAC-12.E5.1.15
Horodyskyj, Lev	CA	IAC-12.E1.3.1
Horvat, Glen	CA	IAC-12.C4.7-C3.5.2
Hoshino, Takeshi	A	IAC-12.A3.2D.15
Hosonuma, Takayuki	A	IAC-12.C1.3.13
Hou, Jianwen	A	IAC-12.A3.3A.5
Hou, Liming	A	IAC-12.B2.1.13
Hou, Meiying	CA	IAC-12.A2.1.15
Hou, Xinbin	A	IAC-12.C3.1.7
Hou, Xinbin	CA	IAC-12.E5.1.10
Hou, Zhendong	CA	IAC-12.B4.4.11
Houdou, Berengere	CA	IAC-12.A3.2D.18
Houdou, Berengere	CA	IAC-12.A3.2B.4
Houge, Torbjørn	CA	IAC-12.B2.4.9
Houltz, Ylva	CA	IAC-12.A2.3.6
Houssou, Samson	CA	IAC-12.C3.4.6
Houston, Matthew	CA	IAC-12.B4.6B.10
Houts, Sarah	A	IAC-12.E1.1.4
Houtzagers, Peter	A	IAC-12.A2.5.12
Hovinen, Veikko	CA	IAC-12.B2.5.8
Hovinen, Veikko	CA	IAC-12.B2.5.15
Hovland, Scott	CA	IAC-12.C3.3.5
Howard, Andrew	CA	IAC-12.A4.1.3
Howard, Diane	A	IAC-12.D6.1.9
Howard, Diane	CA	IAC-12.E7.7-B3.8.10
Howell, Kathleen	CA	IAC-12.C1.6.2
Howell, Kathleen	CA	IAC-12.C1.7.2
Howell, Kathleen	CA	IAC-12.C1.8.1
Hu, Chun-Bo	CA	IAC-12.C4.5.12
Hu, Chunbo	CA	IAC-12.C4.2.6
Hu, Dan	A	IAC-12.E3.1.10
Hu, Haixia	CA	IAC-12.A3.2D.24
Hu, Ke	CA	IAC-12.B2.1.2
Hu, Min	A	IAC-12.D1.1.10
Hu, Min	A	IAC-12.C1.2.5
Hu, Qiang	CA	IAC-12.D5.3.2
Hu, Tian yuan	A	IAC-12.A2.7.10
Hu, Zi-Jun	CA	IAC-12.C2.4.4
Huang, Hai-bing	A	IAC-12.C1.8.3
Huang, Hai-bing	CA	IAC-12.C1.8.12
Huang, Hai-bing	CA	IAC-12.C1.9.13
Huang, Hao	CA	IAC-12.A3.2A.5
Huang, Hao	A	IAC-12.A3.2B.6
Huang, Jiangchuan	A	IAC-12.A3.2A.5
Huang, Jiangchuan	CA	IAC-12.A3.2B.6
Huang, Jie	CA	IAC-12.A6.3.5
Huang, Jie	CA	IAC-12.C4.5.10
Huang, Kun	CA	IAC-12.B2.3.13
Huang, Shiyong	A	IAC-12.C2.7.17
Huang, Wei-chih	CA	IAC-12.C2.1.4
Huang, Weifen	CA	IAC-12.B6.3.9
Hubault, Armelle	CA	IAC-12.A3.4.1
Hubbard, Scott	CA	IAC-12.C4.2.11
Hubbard, Scott	CA	IAC-12.A3.3A.14
Hubbard, Scott	CA	IAC-12.E6.1.3
Huber, Harald	CA	IAC-12.A1.6.10
Hufenbach, Bernhard	A	IAC-12.A3.1.1
Hufenbach, Bernhard	CA	IAC-12.B3.1.9
Hufenbach, Bernhard	CA	IAC-12.D3.1.2
Hufenbach, Bernhard	CA	IAC-12.A5.4.7
Hughes, Bill	CA	IAC-12.A6.7.5
Hughes, Tyler	A	IAC-12.E1.7.10
Hughson, Richard	CA	IAC-12.A1.2.6
Hugues-Fulford, Millie	CA	IAC-12.A1.7.10
Hulsroj, Peter	CA	IAC-12.A5.2.1
Hundley, Jason	CA	IAC-12.D2.8.3
Hunt, Rob	CA	IAC-12.B2.1.10
Hunter, Jean	CA	IAC-12.A5.1.2
Huo, Jiajing	A	IAC-12.C2.6.3
Hurni, Andreas	CA	IAC-12.C2.5.9
Hursh, Steve	CA	IAC-12.A1.1.11
Husain, Mukkarum	A	IAC-12.C2.1.14
Hussain, Syed Waqas	CA	IAC-12.C2.1.3
Hussman, Hauke	CA	IAC-12.A3.4.10
Hutasuhut, Hagorly	A	IAC-12.E2.2.6
Huyhn, Thomas	CA	IAC-12.A6.3.7
Hwang, Do-Soon	CA	IAC-12.C2.1.5
Hwang, Helen	CA	IAC-12.A3.5.17
Hwang, Yeonha	A	IAC-12.C1.3.2
Hyde, Truell	CA	IAC-12.B4.8.8
Hyder, Eric	CA	IAC-12.A1.1.5
Högman, Ulf	CA	IAC-12.D3.4.7

I

Name	Role	Paper
Ianelli, Samantha	CA	IAC-12.C2.4.1
Ianelli, Samantha	A	IAC-12.D2.4.1
Ianelli, Samantha	CA	IAC-12.C2.9.2
Ibarra, Aitor	CA	IAC-12.D3.4.4
Ibrahimova, Sevda R.	A	IAC-12.B4.1.10
Ibrahimova, Sevda R.	A	IAC-12.B5.2.5
Ichikawa, Tsutomu	A	IAC-12.B2.2.7
Ichimura, Naoyuki	CA	IAC-12.A6.1.7
Ide, Yuichiro	A	IAC-12.E2.2.4
Iess, Luciano	A	IAC-12.B2.1.10
Iess, Luciano	CA	IAC-12.A3.3A.21
Iess, Luciano	CA	IAC-12.B2.3.8
Iess, Luciano	CA	IAC-12.A3.5.20
Ignashkova, Tatiana	CA	IAC-12.A1.7.12
Ignatius, Jopaul	CA	IAC-12.D2.2.14
Iizuka, Nobuyuki	A	IAC-12.D2.1.10
Ijichi, Koichi	CA	IAC-12.B4.6A.3
Ijiri, Kenichi	CA	IAC-12.A1.3.3
Ikebukuro, Koichi	A	IAC-12.A2.4.7
Ikenaga, Toshinori	A	IAC-12.D1.4.10
Ikenaga, Toshinori	CA	IAC-12.C4.6.8
IKI, Kentaro	CA	IAC-12.C1.8.10
Ilbis, Erik	CA	IAC-12.C3.4.5
Illmer, Norbert	CA	IAC-12.B6.3.5
Ilyin, Viacheslav	CA	IAC-12.A1.6.10
Im, Jongbin	CA	IAC-12.E3.4.12
Imaki, Kazuya	CA	IAC-12.B3.4-B6.5.7
Imamura, Hiroshi	CA	IAC-12.A3.4.8
Imamura, Osamu	CA	IAC-12.D2.3.3
Imamura, Shunsuke	CA	IAC-12.B1.2.18
Imamura, Shunsuke	CA	IAC-12.D5.3.11
Imhof, Anna Barbara	CA	IAC-12.B3.2.8
Imhof, Anna Barbara	CA	IAC-12.E5.2.4
Imhof, Anna Barbara	A	IAC-12.E5.3.8
Imhof, Anna Barbara	A	IAC-12.E5.5A.6
Immel, Thomas	CA	IAC-12.B4.2.4
Imobersteg, Joshua	CA	IAC-12.E2.3.1
Imre, Egemen	CA	IAC-12.A6.1.17
Imre, Egemen	CA	IAC-12.A6.4.8
Imre, Egemen	CA	IAC-12.A6.6.9
Inalhan, Gokhan	A	IAC-12.B4.6B.5
Inamori, Takaya	CA	IAC-12.C1.1.4
Inamori, Takaya	CA	IAC-12.B4.3.4
Inbar, Tal	A	IAC-12.E4.1.3
Indrigo, Dennis	CA	IAC-12.A3.3B.8
Indyk, Stephen	A	IAC-12.A5.1.7
Infed, Farid	A	IAC-12.C2.7.1
Infed, Farid	CA	IAC-12.C2.9.4
Ingenito, Antonella	A	IAC-12.D2.4.10
Ingenito, Antonella	A	IAC-12.C4.5.2
Inoue, Daisuke	CA	IAC-12.A3.2D.28
Inoue, Eiichi	CA	IAC-12.E1.2.10
Inoue, Koichi	CA	IAC-12.C1.3.10
Inoue, Koichi	CA	IAC-12.B4.6A.2
Inoue, Koichi	CA	IAC-12.E6.2.6
Inoue, Koichi	CA	IAC-12.C1.9.3
Iorio, Marco	CA	IAC-12.A3.3C.5
Ippolito, Marco	CA	IAC-12.B4.6A.7
Irwin, Daniel	CA	IAC-12.B1.1.8
Irwin, Daniel	CA	IAC-12.E3.2.3
Irwin, Daniel	CA	IAC-12.E3.2.4
Irwin, Daniel	CA	IAC-12.B1.5.6
Irwin, Daniel	CA	IAC-12.E5.5B.2
Isakowitz, Steve	A	IAC-12.D2.9-D6.2.7
Ishii, Masahiro	CA	IAC-12.C4.1.5
Ishikawa, Keitaro	CA	IAC-12.D2.5.5
Ishikawa, Keitaro	A	IAC-12.C4.6.1
Ishimoto, Shinji	CA	IAC-12.D2.4.1
Ishimoto, Shinji	CA	IAC-12.D2.4.2
Ishizawa, Junichiro	CA	IAC-12.C2.6.8
Ismail, Alnoor	CA	IAC-12.D3.3.2
Istasse, Eric	CA	IAC-12.B3.3.5
Itahashi, Takamasa	CA	IAC-12.C3.1.8
Ito, Takashi	CA	IAC-12.D2.3.9
Itoh, Kei-ichi	CA	IAC-12.D1.6.8
Ivanov, Danil	CA	IAC-12.C1.9.12
Ivanov, Mikhail	CA	IAC-12.B4.6A.8
Ivanov, Victor	CA	IAC-12.A3.3A.18
Ivanov, Victor	CA	IAC-12.B6.2.17
Ivanova, Alevtina	CA	IAC-12.A2.2.20
Ivashkin, Vyacheslav V.	A	IAC-12.C1.5.10
Ivashkin, Vyacheslav V.	A	IAC-12.E4.2.6
Ivlev, Nikita	CA	IAC-12.C1.9.12
Iwakiri, Naohiko	CA	IAC-12.B2.3.1
Iwase, Satoshi	A	IAC-12.A1.2.5
Iwashita, Masashi	CA	IAC-12.C3.1.6
Iwata, Minoru	CA	IAC-12.D5.3.13
Iwata, Toshiaki	CA	IAC-12.B4.6A.11
Izumi, Takehiro	A	IAC-12.C4.9.7

J

Name	Role	Paper
J, Anadaraj	CA	IAC-12.D2.2.13
J. Mashayekhi, Mohammad	A	IAC-12.C1.9.4
Jackowska, Malgorzata	CA	IAC-12.E1.5.10
Jackson, Natasha	CA	IAC-12.E5.5B.1
Jacobs, Shane	CA	IAC-12.A1.6.6
Jacques, Lionel	A	IAC-12.C3.3.4
Jaffe, Paul	A	IAC-12.C3.2.1
Jah, Moriba	CA	IAC-12.A6.6.11
Jaju, Vidyasagar	A	IAC-12.A1.5.12
Jakhu, Ram S.	A	IAC-12.E7.3.8
Jakhu, Ram S.	A	IAC-12.A6.6.6
Jakobsson, Björn	CA	IAC-12.C1.3.1
Jalilian, Hamid	CA	IAC-12.D1.1.13
James, Nick	CA	IAC-12.B2.1.10
Jamroz, Wes	CA	IAC-12.A3.3A.17
Jamroz, Wes	CA	IAC-12.A3.2C.7
Jan, Thoemel	CA	IAC-12.C2.1.10
Jan, Thoemel	CA	IAC-12.D1.5.3
Jan, Thoemel	CA	IAC-12.C2.7.6
Janardhanan Nair, Jayaprakash	A	IAC-12.C4.2.4
Janardhanan Nair, Jayaprakash	A	IAC-12.C4.2.15
Jang, Dongwook	CA	IAC-12.C4.2.18
Jang, Sung-Soo	CA	IAC-12.A3.2B.7
Janhunen, Pekka	CA	IAC-12.B4.2.11
Janhunen, Pekka	A	IAC-12.D4.1.4
Janovsky, Rolf	CA	IAC-12.D2.3.1
Jansen, Frank	CA	IAC-12.C4.7-C3.5.3
Jansen, Frank	CA	IAC-12.E1.6.11
Jara Alegria, Elvis Omar	A	IAC-12.B4.6B.4
Jarry, Amauric	CA	IAC-12.C4.2.5
Jarvis, David	CA	IAC-12.B3.3.5
Jasper, Lee	CA	IAC-12.E2.3.1
Jaswar, Fitri Dewi	A	IAC-12.B1.4.15
Jaworski, Jaroslaw	A	IAC-12.E1.5.10
Jazebizadeh, Hooman	A	IAC-12.E1.4.8
Jazebizadeh, Hooman	A	IAC-12.E1.9.8
Jean, Pierre	A	IAC-12.B3.1.6
Jean, Sabbagh	CA	IAC-12.B3.1.2
JEB, David	CA	IAC-12.B1.5.4
Jens, Elizabeth	CA	IAC-12.E1.1.4
Jens, Elizabeth	CA	IAC-12.C4.2.11
Jensen-Clem, Rebecca	CA	IAC-12.B4.6B.8
Jensen-Clem, Rebecca	A	IAC-12.B4.6B.10
Jeon, Junsu	A	IAC-12.C4.1.12
Jeung, In-Seuck	A	IAC-12.A3.2A.8
Jia, Bin	A	IAC-12.A6.3.13
Jia, Dongyong	A	IAC-12.A6.3.11
Jia, Guanghui	A	IAC-12.A6.3.16
Jia, Guanghui	A	IAC-12.A6.3.17
Jian, Zhang	A	IAC-12.B2.2.11
Jianchuan, Lu	CA	IAC-12.B2.2.11
Jiang, Hai	A	IAC-12.A6.1.19
Jie, Degang	CA	IAC-12.A3.2D.24
Jillani, Khwaja Bilal	A	IAC-12.B2.1.9
Jimenez-Suarez, Alberto	A	IAC-12.C2.8.7
Jin, Guangyuan	CA	IAC-12.A3.2D.24
Jin, Ho	CA	IAC-12.B4.2.4
Jinglang, Feng	A	IAC-12.A3.2B.8
Jingzhong, Cui	A	IAC-12.B2.2.10
Jinxiu, Zhang	A	IAC-12.B4.4.11
Jo, Sungbeom	A	IAC-12.A3.2D.2
Johann, Ulrich	CA	IAC-12.A3.5.9
Johannes, Bernd	CA	IAC-12.A1.8.5
Johannsen, Kirsten	A	IAC-12.E5.5A.1
Johansson, Hakan	CA	IAC-12.B4.6A.8
John, Olusoji Nester	CA	IAC-12.E7.1.3
John, Olusoji Nester	A	IAC-12.B1.4.11
John, Olusoji Nester	A	IAC-12.E7.4.10
John, Silke	CA	IAC-12.A1.2.20
Johnson, Christopher	CA	IAC-12.E3.1.4
Johnson, Christopher	A	IAC-12.E7.1.3
Johnson, Christopher	CA	IAC-12.B1.5.8
Johnson, Marissa	CA	IAC-12.D6.1.7
Johnson, Nicholas L.	A	IAC-12.A6.2.9
Johnson, Phyllis J.	CA	IAC-12.A1.1.7
Johnson-Green, Perry	CA	IAC-12.B3.1.2
Johnson-Green, Perry	CA	IAC-12.B3.1.6
Jolly, Catherine	A	IAC-12.D1.3.1
Jolly, Claire	A	IAC-12.E3.3.4
Jolly, Claire	A	IAC-12.E6.3.5
Jomaas, Grunde	A	IAC-12.A2.2.2
Jomaas, Grunde	CA	IAC-12.A2.2.3
Jones, Christopher	CA	IAC-12.A1.1.5
Jones, Christopher	CA	IAC-12.D3.1.5
Jones, William	A	IAC-12.B3.3.1
Jones, William Cuthbert	A	IAC-12.E4.1.8
Jorba, Angel	CA	IAC-12.C1.6.4
Jorda-Siquier, Rafael	A	IAC-12.D2.7.4
Jorgensen, Anders	A	IAC-12.D4.3.7
Joshi, Rohit	A	IAC-12.E2.3.2
Josse, Patrick	CA	IAC-12.B5.1.8
Josyula, Kamalakar	CA	IAC-12.A3.3A.10
Joudoi, Daisuke	CA	IAC-12.C3.2.4
Joudoi, Daisuke	CA	IAC-12.C3.3.6
Joudrier, Luc	CA	IAC-12.A3.3A.12
Joyner, Claude	A	IAC-12.C4.6.5
Ju, Gwanghyeok	A	IAC-12.A3.2B.7
Juhls, Andreas	CA	IAC-12.D2.1.6
Jukola, Paivi	A	IAC-12.B3.2.9
Jukola, Paivi	A	IAC-12.E6.4-D4.2.10
Jukola, Paivi	A	IAC-12.D4.4.4
Jung, Eun Sang	A	IAC-12.C4.2.18
Jung, Philippe	A	IAC-12.E4.2.2
Junjiro, Onoda	CA	IAC-12.C3.3.9
Junqiang, Ren	CA	IAC-12.B2.4.12
Jäger, Markus	A	IAC-12.D2.2.8
Jüttner, Kathrin	A	IAC-12.A1.8.5

K

Name	Role	Paper
K, Kalyani	CA	IAC-12.A3.3A.10
K, Suresh	CA	IAC-12.B4.6A.4
Kacpura, Thomas	CA	IAC-12.B2.2.5
Kadzhaev, Vadim	A	IAC-12.D5.1.10
Kaeso, Ronny	CA	IAC-12.C2.3.2
Kai, Sunao	A	IAC-12.D4.3.2
Kaiser, Bryan	A	IAC-12.C3.3.11
Kaiser, Clemens	CA	IAC-12.A6.5.29
Kaiser, Clemens	A	IAC-12.B4.6A.1
Kajimura, Yoshihiro	CA	IAC-12.C4.8.11
Kajiwara, Ken	CA	IAC-12.C4.3.10
Kajiwara, Ken	CA	IAC-12.C4.8.7
Kajiwara, Kenichi	CA	IAC-12.C4.4.26
Kakizakai, Takehiko	A	IAC-12.E2.3.8
Kalahasthi, Kalpana	CA	IAC-12.B4.6A.4
Kalbskopf, Serena	A	IAC-12.E7.1.21
Kalde, Jaanus	CA	IAC-12.C3.4.5
Kalery, Alexander	CA	IAC-12.A2.6.6
Kalina, Piotr	CA	IAC-12.C4.8.3
Kallakunta, Kali Prasad Vasn	CA	IAC-12.D2.2.13
Kallenbach, Reinald	CA	IAC-12.A3.4.10
Kalluru, Khader voli	CA	IAC-12.C4.2.15
Kalnins, Indulis	CA	IAC-12.E1.2.2
Kamaletdinova, Guzel	CA	IAC-12.A1.6.9
Kamata, Yukio	CA	IAC-12.B2.1.6
Kamhawi, Hani	A	IAC-12.C4.4.6
Kamigaichi, Shigeki	CA	IAC-12.B3.1.2
Kamijo, Takaichi	CA	IAC-12.D1.6.8
Kamimura, Heihachiro	CA	IAC-12.A6.7.8
Kamimura, Hisano	A	IAC-12.E1.6.12
Kamimura, Hisano	A	IAC-12.E5.4.7
Kamiya, Takanobu	CA	IAC-12.D2.1.9
Kamiya, Takanobu	CA	IAC-12.D2.1.10
Kan, Kevin	CA	IAC-12.A1.1.5
Kanai, Ryuichiro	CA	IAC-12.C4.9.5
Kanani, Keyvan	A	IAC-12.A6.5.9
Kanawka, Krzysztof	A	IAC-12.E3.4.5
Kanawka, Krzysztof	CA	IAC-12.E1.6.6
Kanazawa, Satoru	A	IAC-12.A3.2D.23
Kaneko, Takao	CA	IAC-12.C4.1.8
Kang, Kyungin	CA	IAC-12.B4.6A.12
Kang, Qi	CA	IAC-12.A2.3.5
Kang, Qi	A	IAC-12.A2.4.8
KANG, Sang-Wook	CA	IAC-12.A3.2B.7
Kangas, Ville	CA	IAC-12.B1.3.10
Kanjir, Urša	CA	IAC-12.B1.5.7
Kanno, Go	CA	IAC-12.C1.9.8
Kano, Yasuhito	A	IAC-12.C4.1.5
Kapoglou, Angeliki	CA	IAC-12.E5.2.6
Kapoglou, Angeliki	A	IAC-12.D5.1.11
Karabadzhak, George	CA	IAC-12.B3.1.2
Karga, Valentina	CA	IAC-12.A5.1.2
Karga, Valentina	A	IAC-12.E5.3.9
Karga, Valentina	CA	IAC-12.D4.4.2
Karga, Valentina	CA	IAC-12.E5.5A.3
Kargopoltsev, Alexei	CA	IAC-12.E6.4-D4.2.4
Karidhal, Ritu	A	IAC-12.C1.9.11
Karl, Alexander	CA	IAC-12.A3.4.13
Karl, Alexander	CA	IAC-12.E1.7.15
Karlsson, Thomas	CA	IAC-12.C1.3.1
Karma, Alain	CA	IAC-12.A2.6.7
Karpenko, Stanislav	CA	IAC-12.C1.9.12
Karpov, Anatoly	A	IAC-12.D2.2.11
Karpov, Anatoly	A	IAC-12.E6.4-D4.2.4
Karpov, Anatoly	A	IAC-12.E5.2.10
Karpov, Anatoly	CA	IAC-12.D2.6.11
Karpov, Anatoly	A	IAC-12.C2.9.3
Karve, Mohit	CA	IAC-12.B4.1.8
Kashif, Muhammad	CA	IAC-12.C2.4.5
Kashiyama, Yashio	A	IAC-12.B3.3.7
Kassel, Ronald	CA	IAC-12.A1.8.2
Kasuya, Yoshihiro	CA	IAC-12.E2.3.8
Katayama, Keisho	CA	IAC-12.A1.2.5
Katayama, Norihiko	CA	IAC-12.B2.4.4
Katayama, Yasuhiro	CA	IAC-12.A6.7.8
Kathryn, Dunlop	A	IAC-12.E2.3.10
Kato, Akira	A	IAC-12.A6.4.2
Kato, Kanenori	CA	IAC-12.C4.5.1
Katsumata, Nobuisa	A	IAC-12.C2.3.11
Katuntsev, Vladimir P.	CA	IAC-12.A1.2.21
Kauffmann, Jens	A	IAC-12.D2.4.3
Kauffmann, Jens	CA	IAC-12.D2.5.2
Kauffmann, Samüël	CA	IAC-12.E1.9.1
Kaur, Jasdeep	CA	IAC-12.A1.1.9
Kaur, Jasdeep	CA	IAC-12.A1.2.3
Kaur, Jasdeep	CA	IAC-12.E5.2.7
Kaur, Jasdeep	CA	IAC-12.A1.5.7
Kawaguchi, Junichiro	CA	IAC-12.D1.1.3
Kawaguchi, Junichiro	A	IAC-12.C1.4.1
Kawaguchi, Junichiro	CA	IAC-12.E5.1.9
Kawaguchi, Junichiro	CA	IAC-12.C1.6.8
Kawaguchi, Junichiro	CA	IAC-12.C1.7.11
Kawahara, Kousuke	CA	IAC-12.B2.1.6
Kawakatsu, Yasuhiro	CA	IAC-12.C1.4.4
Kawamoto, Satomi	CA	IAC-12.C4.9.6
Kawamoto, Satomi	CA	IAC-12.A6.5.1
Kawamoto, Satomi	CA	IAC-12.C4.4.11
Kawamoto, Satomi	CA	IAC-12.C1.8.10
Kawamoto, Satomi	A	IAC-12.A6.7.8
Kawamoto, Satomi	CA	IAC-12.A6.7.10
Kawamura, Hiroshi	CA	IAC-12.A2.7.7
Kawasaki, Kazuyoshi	CA	IAC-12.B2.4.4
Kawato, Hiroshi	CA	IAC-12.D2.5.5
Kawato, Hiroshi	CA	IAC-12.C4.6.1
Kaya, Nobuyuki	CA	IAC-12.C3.1.3
Kaya, Nobuyuki	A	IAC-12.C3.1.6
Kayal, Hakan	A	IAC-12.B4.3.2
Kazemi, Hamid	A	IAC-12.E7.2.13
Kazuhiko, Yotsumoto	CA	IAC-12.C4.6.8
Keaton, Jacob	A	IAC-12.B3.1.1
Kebschull, Christopher	CA	IAC-12.A6.4.10
Kebschull, Christopher	CA	IAC-12.A6.5.3
Keenan, Andrew	CA	IAC-12.B3.4-B6.5.6
Keenan, Andrew	CA	IAC-12.A5.3-B3.6.4
Keetman, Anja	CA	IAC-12.A2.1.5
Kelecy, Thomas	CA	IAC-12.A6.6.11
Keller, Shari	A	IAC-12.D3.4.3
Kelley, Robert	A	IAC-12.A6.2.18
Kelley, Robert	CA	IAC-12.A6.3.7
Kelly, Christopher	CA	IAC-12.B3.3.11
Kemble, Stephen	CA	IAC-12.D2.2.1
Kemble, Stephen	CA	IAC-12.A3.5.9
Kemp, Dayne	A	IAC-12.E2.1.2
Kenyon, Shaun	A	IAC-12.B4.6B.3
Keravala, Jim	A	IAC-12.A5.1.6
Keravala, Jim	A	IAC-12.E6.2.1
Kereszturi, Akos	CA	IAC-12.A5.2.6
Kermektchieva, Guergana	A	IAC-12.E7.4.11
Kerschen, Gaetan	CA	IAC-12.C1.3.12
Kervendal, Erwan	CA	IAC-12.A3.4.11
Keshmiri, Mehdi	A	IAC-12.D4.3.8
Keshmiri, Mehdi	CA	IAC-12.C1.9.4
Kessler, Jason	CA	IAC-12.B1.1.9
Kestilä, Antti	CA	IAC-12.B4.2.11
Kevin, De GROOTE	CA	IAC-12.D3.4.5
Khabarovskiy, Nikolay	CA	IAC-12.A1.6.9
Khan, Aafaque	A	IAC-12.E1.2.5
Khan, Aafaque	A	IAC-12.E2.3.9
Khan, Aafaque	A	IAC-12.E1.7.9
Khan, Aafaque	A	IAC-12.E6.3.1
Khan, Arifur	CA	IAC-12.C3.2.5
Khan, Arifur	CA	IAC-12.D5.3.13
Khan, Atha Ur Rahman	A	IAC-12.C2.1.12
Khan, Muhammad Shadab	A	IAC-12.B4.1.4
Khan, Muhammad Shadab	A	IAC-12.A3.2D.16
Khan, Muhammad Shadab	A	IAC-12.YPVF.3.3
Khan, Muhammad Shadab	A	IAC-12.B3.7.5
Khan, Zahra	A	IAC-12.A6.5.19
Kharchenko, Maxym	CA	IAC-12.C2.4.6
Khartov, Victor V.	CA	IAC-12.A3.1.11
Khartov, Victor V.	A	IAC-12.D4.4.7
Khorolskyy, Petro	A	IAC-12.A6.5.16
Khosrojerdi, Mohsen	CA	IAC-12.D1.1.13
Khurshid, Osama	A	IAC-12.B4.2.11
Khutornyi, Viktor	A	IAC-12.E1.4.2
Khutorovsky, Zakhary	CA	IAC-12.A6.1.4
Kibe, Seishiro	CA	IAC-12.A6.7.8
Kibler, Kathy	CA	IAC-12.A1.8.4
Kierspel, Ralf	CA	IAC-12.B5.1.7
Kikuchi, Takashi	CA	IAC-12.C4.4.16
Kim, Chun Gon	CA	IAC-12.A6.3.9
Kim, Daryl	CA	IAC-12.A6.1.21
Kim, Hae-Dong	CA	IAC-12.C1.5.8
Kim, Jerry	CA	IAC-12.B4.2.4
Kim, Kuisoon	CA	IAC-12.C4.1.13
Kim, Kyung-Won	CA	IAC-12.C2.1.5
Kim, Su-Kyum	CA	IAC-12.A3.2B.7
Kim, Sung-Hoon	CA	IAC-12.C2.1.5
Kim, Taig Young	A	IAC-12.C2.8.9
Kim, Yeongju	A	IAC-12.E6.2.3
Kim, Yongho	CA	IAC-12.B4.2.4
Kimani, John	CA	IAC-12.E3.4.2
Kimball, Peter	CA	IAC-12.E1.1.4
Kimoto, Kenichi	A	IAC-12.C4.1.15
Kimoto, Yugo	CA	IAC-12.C2.6.8
Kimoto, Yugo	A	IAC-12.D5.3.11
Kimura, Shinichi	CA	IAC-12.D1.2.1
Kimura, Shinichi	CA	IAC-12.D1.2.2
Kimura, Shinichi	CA	IAC-12.E2.3.8
Kimura, Shinichi	A	IAC-12.D1.6.8
Kimura, Toshiya	CA	IAC-12.D2.4.2
Kindracki, Jan	CA	IAC-12.C4.4.28
Kindracki, Jan	CA	IAC-12.C4.8.3
Kindrat, Alexandra	CA	IAC-12.A1.2.12
King, Jan	CA	IAC-12.B2.3.4

Kingston, Jenny	CA	IAC-12.A6.5.20
Kingston, Jenny	CA	IAC-12.C2.7.5
Kinnersley, Mark	CA	IAC-12.A5.4.7
Kinnison, James	CA	IAC-12.A3.5.2
Kio, Michael	A	IAC-12.C2.8.10
Kipp, Andreas	CA	IAC-12.A5.3-B3.6.1
Kirsch, Karl	CA	IAC-12.A1.8.5
Kishindo, Hiroyuki	A	IAC-12.E7.1.31
Kishino, Yoshihiro	CA	IAC-12.D1.1.3
Kitade, Kenji	CA	IAC-12.B4.6A.3
Kitamura, Shoji	CA	IAC-12.C4.4.11
Kitamura, Shoji	CA	IAC-12.A6.7.8
Kitamura, Shoji	A	IAC-12.A6.7.10
Kitani, Satoru	CA	IAC-12.C1.4.4
Kitazawa, Yukihito	CA	IAC-12.A6.1.14
Kitazawa, Yukihito	CA	IAC-12.A6.4.2
Klaus, David	CA	IAC-12.B6.1.4
Klein, Séverine	CA	IAC-12.E1.7.13
Klein Wolt, Marc	CA	IAC-12.A3.2C.8
Kleinschrodt, Alexander	CA	IAC-12.B6.2.11
Klinkrad, Heiner	CA	IAC-12.A6.2.17
Klock, Erich	A	IAC-12.B5.2.7
Knapman, John	A	IAC-12.D4.3.6
Knapp, Mary	A	IAC-12.B4.2.7
Knapp, Mary	CA	IAC-12.B4.6B.8
Knapp, Mary	CA	IAC-12.B4.6B.10
Knodt, Uwe	A	IAC-12.D5.2.5
Knudsen, David	CA	IAC-12.E1.3.11
Knupp, Kevin	CA	IAC-12.B1.5.9
Knutson, Amanda	A	IAC-12.C1.8.1
Kobayashi, Sotaro	CA	IAC-12.D1.6.8
Kobiera, Arkadiusz	A	IAC-12.C4.4.28
Kobiera, Arkadiusz	CA	IAC-12.C4.8.3
Kobrick, Ryan	A	IAC-12.A1.6.6
Koch, Alexander W.	CA	IAC-12.C2.5.9
Kochetkov, Alexey	A	IAC-12.A1.6.12
Kochetkov, Alexey	CA	IAC-12.A1.6.2
Kochetkov, Alexey	CA	IAC-12.A1.6.9
Kodera, Masatoshi	CA	IAC-12.D2.4.2
Koeck, Charles	CA	IAC-12.B1.2.4
Koeck, Charles	CA	IAC-12.B1.3.1
Koeck, Charles	A	IAC-12.B5.1.5
Koeck, Charles	A	IAC-12.A3.5.9
Koeck, Charles	A	IAC-12.C1.8.8
Koehler, Andrea	CA	IAC-12.B3.3.9
Koelle, Dietrich E.	CA	IAC-12.D2.4.5
Koenig, Rolf	CA	IAC-12.B4.2.1
Kofman, Wlodek	CA	IAC-12.A3.5.8
Koga, Kiyokazu	A	IAC-12.D5.3.10
Kogure, Hideaki	CA	IAC-12.E2.3.8
Kohata, Hiroki	CA	IAC-12.B1.2.18
Koizumi, Hiroyuki	CA	IAC-12.C4.8.10
Koji, Tanaka	CA	IAC-12.C3.1.4
Kojima, Hirotsugu	CA	IAC-12.C2.4.20
Koleva, Rositza	CA	IAC-12.A1.4.17
Koleva, Rositza	A	IAC-12.A1.4.22
Koller, Michael	A	IAC-12.YPVF.1.5
Kolozezny, Anton	CA	IAC-12.D2.4.12
Kolyuka, Yury	CA	IAC-12.A6.2.10
Komac, Marko	CA	IAC-12.B5.2.9
Komarevtsev, Sergey	CA	IAC-12.A1.1.2
Komarova, Maria	A	IAC-12.B3.7.4
Komatsu, Goro	CA	IAC-12.A3.5.8
Komatsu, Keiko	A	IAC-12.B3.4-B6.5.2
Komatsu, Reiji	CA	IAC-12.C4.8.7
Komninou, Eirini	A	IAC-12.B4.3.7
Komurasaki, Kimiya	CA	IAC-12.C4.3.10
Komurasaki, Kimiya	CA	IAC-12.C4.8.7
Komurasaki, Kimiya	CA	IAC-12.C4.8.10
Kong, XianRen	CA	IAC-12.C2.3.14
Konishi, Ryusuke	A	IAC-12.E1.9.3
Konoue, Kazuya	A	IAC-12.B1.2.18
Konstantinidis, Konstantinos	CA	IAC-12.D1.1.1
Konstantinidis, Konstantinos	CA	IAC-12.A3.5.7
Konstantinov, Mikhail S.	CA	IAC-12.A3.5.5
Kontulainen, Saija	CA	IAC-12.A1.3.13
Koo, Cheol-Hea	CA	IAC-12.A3.2B.7
Koo, Ja-Ye	CA	IAC-12.C4.1.13
Koppel, Christophe	CA	IAC-12.E1.6.11
Koppel, Christophe	CA	IAC-12.C4.7-C3.5.3
Korepanov, Valerii	A	IAC-12.B4.2.3
Korpela, Eric	A	IAC-12.A4.1.2
Korpela, Eric	CA	IAC-12.A4.1.3
Kosada, Hirokazu	CA	IAC-12.E1.2.4
Koschny, Detlef	CA	IAC-12.A3.4.9
Koshiishi, Hideki	A	IAC-12.D5.3.5
Kossev, Ivan	CA	IAC-12.D1.6.9
Kostarev, K.G.	CA	IAC-12.A2.4.4
Kostopoulos, Vassilis	CA	IAC-12.C2.4.18
Kostopoulos, Vassilis	CA	IAC-12.C2.8.6
Kotler, Michelle	CA	IAC-12.E5.5A.6
Kotzakolios, Athanasios	CA	IAC-12.C2.4.18
Koudelka, Otto	CA	IAC-12.B2.2.1
Koudelka, Otto	CA	IAC-12.B4.3.9
Koudelka, Otto	CA	IAC-12.B2.3.6
Koudelka, Otto	CA	IAC-12.B2.4.7
Koudelka, Otto	CA	IAC-12.B2.5.4
Koudelka, Otto	A	IAC-12.B2.5.5
Koudelka, Otto	CA	IAC-12.B5.2.6
Kovacs, Reka	CA	IAC-12.D4.4.6
Kovalchuk, Evgeny	CA	IAC-12.A2.1.5
Kovalenko, Mykola	CA	IAC-12.C4.3.11
Kowaltschek, Steeve	CA	IAC-12.A6.7.3
Koyama, Masahiro	CA	IAC-12.D1.6.8
Koyama, Tomokazu	CA	IAC-12.C2.4.20
Koyama, Yoshisada	CA	IAC-12.B2.2.8
Koyari, Yukio	CA	IAC-12.B3.1.5
Kozharnovich, Anton	CA	IAC-12.E6.4-D4.2.4
Kozlov, Nikolay	A	IAC-12.A2.2.19
Kozlov, Victor	A	IAC-12.A2.2.5
Kozlov, Victor	A	IAC-12.A2.2.20
Kozlov, Victor	CA	IAC-12.B6.2.5
Kozlov, Victor	CA	IAC-12.B6.2.17
Kozlovskaya, Inessa	A	IAC-12.A1.2.10
Kozlovskaya, Inessa	CA	IAC-12.A1.3.4
Kozlovskaya, Inessa	CA	IAC-12.A1.8.3
Kozuka, Souichirou	A	IAC-12.E7.2.3
Kracik, Michal	CA	IAC-12.A1.6.7
Kracik, Michal	CA	IAC-12.A1.6.8
Krag, Holger	CA	IAC-12.A6.1.16
Krag, Holger	CA	IAC-12.A6.2.4
Krag, Holger	CA	IAC-12.A6.2.17
Krag, Holger	CA	IAC-12.A6.4.10
Krainov, Anatoly	CA	IAC-12.A3.1.8
Kramer, Peter A.	CA	IAC-12.E5.2.10
Kramlikh, Andrey	CA	IAC-12.B2.5.9
Kreck, Guido	CA	IAC-12.A1.5.10
Kreisel, Joerg	CA	IAC-12.A6.5.3
Kreisel, Joerg	A	IAC-12.E6.2.10
Kretzenbacher, Michael	A	IAC-12.B5.1.10
Kreuzer, Stefan	CA	IAC-12.B5.2.6
Krieger, Gerhard	CA	IAC-12.B1.2.11
Krieger, Gerhard	A	IAC-12.B4.7B.3
Krishnakumar, Shreeraj	CA	IAC-12.E2.3.2
Krisko, Paula	CA	IAC-12.A6.1.6
Krolikowski, Alanna	A	IAC-12.E6.4-D4.2.2
Krolikowski, Alanna	A	IAC-12.E6.2.4
Krolikowski, Alanna	A	IAC-12.A6.6.5
Krueger, Simon	CA	IAC-12.E2.3.4
Krutzik, Markus	A	IAC-12.A2.1.8
Kruzelecky, Roman	CA	IAC-12.A3.3A.17
Kruzelecky, Roman	CA	IAC-12.A3.2C.7
Krylov, Igor V.	CA	IAC-12.C1.5.10
KS, Mohanavelu	CA	IAC-12.B2.4.2
Ksse, Chandra Mohan	A	IAC-12.B6.2.13
Kubatiev, Aslan	CA	IAC-12.A1.7.12
Kubik, Philippe	CA	IAC-12.B1.3.1
Kubota, Isao	CA	IAC-12.C4.1.5
Kubota, Sanae	CA	IAC-12.A3.2C.1
Kubota, Takashi	CA	IAC-12.A3.2D.33
Kubota, Takashi	A	IAC-12.A3.2C.9
Kuebler, Ulrich	A	IAC-12.A1.7.13
Kuijpers, Ed	A	IAC-12.D5.2.11
Kuiper, JM (Hans)	A	IAC-12.B1.3.16
Kuipers, André	CA	IAC-12.A1.1.24
Kuitunen, Juha	CA	IAC-12.A6.1.11
Kulkarni, Ganesh	A	IAC-12.E8.1.7
Kulkarni, Shreyas	CA	IAC-12.E2.3.2
Kulu, Erik	CA	IAC-12.B4.5.12
Kulyk, Oleksii	CA	IAC-12.E1.4.2
Kumar, Amit	CA	IAC-12.A2.2.16
Kumar, Amit	CA	IAC-12.A2.2.18
Kumar, Amit	CA	IAC-12.C1.5.4
Kumar, Sanjeev	CA	IAC-12.B6.3.11
Kumei, Yasuhiro	CA	IAC-12.A1.3.3
Kummert, Franz	CA	IAC-12.A5.3-B3.6.1
Kundert, Kara	CA	IAC-12.A4.1.2
Kundert, Kara	CA	IAC-12.A4.1.3
Kundrapu, Madhusudhan	CA	IAC-12.C4.8.4
Kundrot, Craig	CA	IAC-12.B3.3.6
Kuninaka, Hitoshi	CA	IAC-12.B3.1.9
Kuninaka, Hitoshi	CA	IAC-12.C4.4.10
Kuninaka, Hitoshi	CA	IAC-12.C4.4.14
Kuninaka, Hitoshi	CA	IAC-12.C4.6.8
Kurahara, Naomi	CA	IAC-12.B4.3.6
Kurahara, Naomi	A	IAC-12.B4.4.5
Kuraoka, Kesatoshi	CA	IAC-12.B3.1.5
Kurian, Thomas	CA	IAC-12.C2.1.12
Kurian, Thomas	CA	IAC-12.C2.7.10
Kurkin, Igor	A	IAC-12.C4.8.2
Kurmazenko, Eduard	A	IAC-12.A1.6.9
Kuroishi, Chikako	CA	IAC-12.C2.5.6
Kushnar'ov, Alexandr	CA	IAC-12.D2.7.6
Kuwahara, Toshinori	A	IAC-12.A6.4.5
Kuwahara, Toshinori	CA	IAC-12.B4.7A.2
Kuwahara, Toshinori	A	IAC-12.B4.7A.5
Kuwahara, Toshinori	CA	IAC-12.D1.6.4
Kuyumjian, Raffi	CA	IAC-12.B6.1.10
Kuze, Akihiko	CA	IAC-12.B1.2.3
Kuzin, Anatoly	A	IAC-12.D2.4.11
Kvell, Urmas	CA	IAC-12.B4.5.12
KVSR, Prasad	CA	IAC-12.B1.5.14
Kwon, Sang-Ryong	CA	IAC-12.C2.1.5
Kwon, Sejin	CA	IAC-12.C4.2.18
Kwon, Sejin	CA	IAC-12.C4.3.7
Kyo, Takuma	CA	IAC-12.B2.2.8
Könemann, Thorben	A	IAC-12.A2.5.8
Körner, Christine	CA	IAC-12.A1.4.5
Kührt, Ekkehard	CA	IAC-12.A3.4.2

L

Name	Role	Paper
L'Abbate, Michelangelo	CA	IAC-12.B1.4.1
La Gala, Salvatore	CA	IAC-12.A2.5.9
La Neve, Alessandro	A	IAC-12.A1.7.8
La Regina, Veronica	CA	IAC-12.E6.2.7
La Tessa, Chiara	CA	IAC-12.A1.4.5
Labandibar, Jean-YVes	CA	IAC-12.B1.2.12
LaBelle, Remi	A	IAC-12.B2.1.4
Labutkina, Tatyana V.	A	IAC-12.D3.1.10
Lackner, James	CA	IAC-12.A1.2.5
Laemmerzahl, Claus	CA	IAC-12.A2.1.2
Laemmerzahl, Claus	A	IAC-12.A2.1.3
Laemmerzahl, Claus	CA	IAC-12.A2.1.7
Laemmerzahl, Claus	CA	IAC-12.A2.5.4
Lafferty, Paul	CA	IAC-12.A3.2C.1
Lafranconi, Renato	CA	IAC-12.D2.2.2
Lago, Viviana	CA	IAC-12.C4.3.1
Laguna, Pablo	CA	IAC-12.A1.2.1
Lahoz, Carlos	A	IAC-12.D1.3.12
Lamanna, Alfonso	CA	IAC-12.E3.3.5
Lamarche, Luc	CA	IAC-12.D3.3.2
Lamarche, Tom	CA	IAC-12.A3.2C.2
Lambert, Michel	CA	IAC-12.A6.3.3
Lambert, Michel	CA	IAC-12.A6.3.4
Lamborelle, Olivier	A	IAC-12.B6.3.10
Lamborelle, Olivier	CA	IAC-12.B6.1.2
Lamborelle, Olivier	CA	IAC-12.B6.1.6
Lampani, Luca	A	IAC-12.C2.5.7
Lan, Shengwei	CA	IAC-12.A6.3.5
Lancelle, Daniel	CA	IAC-12.C4.2.8
Lancelle, Daniel	CA	IAC-12.C4.2.21
Landis, Geoffrey	CA	IAC-12.D3.1.3
Landrum, Brian	CA	IAC-12.C2.9.6
Landrum, D. Brian	CA	IAC-12.A6.6.3
Lang, Ágota	CA	IAC-12.E1.7.6
Lange, Caroline	CA	IAC-12.A3.4.7
Lange, Caroline	CA	IAC-12.D1.6.1
Lange, Harald	CA	IAC-12.C2.7.1
Langlet, Cécile	CA	IAC-12.A1.1.21
Langley, Christopher S.	CA	IAC-12.A3.3B.5
Lannes, Catherine	CA	IAC-12.B6.3.3
Lanucara, Marco	CA	IAC-12.B2.1.10
Lanucara, Marco	CA	IAC-12.B2.3.8
Lappa, Marcello	CA	IAC-12.A2.5.9
Lappa, Marcello	CA	IAC-12.B6.1.5
Lapuerta, Victoria	CA	IAC-12.E1.7.11
Lara, Luisa M.	CA	IAC-12.A3.4.9
Larin, Vladimir O.	CA	IAC-12.D3.1.10
Lark, Eva-Jane	CA	IAC-12.E6.2.8
Laroque, Christian	A	IAC-12.B6.3.3
Laroque, Christian	A	IAC-12.B6.2.6
Laroque, Christian	A	IAC-12.B6.2.15
Larsen, Paul	A	IAC-12.E7.2.4
Larson, Scott	CA	IAC-12.E6.2.11
Larson, Wiley	CA	IAC-12.D3.2.6
Larson, William	A	IAC-12.A3.2C.4
Larsson, Robin	CA	IAC-12.C1.3.1
Lasslop, Alexandre	CA	IAC-12.E1.6.4
Latha Balakumar, Vishal	A	IAC-12.A3.2D.30
Latha Balakumar, Vishal	CA	IAC-12.B4.3.10
Latipulhayat, Atip	A	IAC-12.E7.2.10
Latzko, Serina T.	CA	IAC-12.E1.6.8
Lau, Matthias	A	IAC-12.C4.4.15
Lau, Patrick	CA	IAC-12.A1.4.5
Lauer, Charles	A	IAC-12.D6.1.8
Lauer, Charles	A	IAC-12.E6.4-D4.2.7
Laufer, Rene	CA	IAC-12.E1.6.11
Laufer, Rene	CA	IAC-12.B4.8.8
Laufer, Rene	CA	IAC-12.B4.8.11
Laughmiller, Micah	A	IAC-12.C4.7-C3.5.5
Laura, Faggioli	CA	IAC-12.C1.5.7
Laure, chambras lafuente	CA	IAC-12.C4.9.8
Laurent, Philippe	CA	IAC-12.A2.1.4
Laurenzi, Susanna	A	IAC-12.C2.2.12
Laurini, Kathy	A	IAC-12.B3.1.9
Lavagna, Michèle	CA	IAC-12.C1.1.1
Lavagna, Michèle	CA	IAC-12.C1.2.12
Lavagna, Michèle	CA	IAC-12.B4.7B.6
Lavagna, Michèle	CA	IAC-12.C1.6.1
Lavagna, Michèle	A	IAC-12.B4.8.3
Lavagna, Michèle	CA	IAC-12.B5.2.11
Laveron-Simavilla, Ana	CA	IAC-12.A2.5.1
Laveron-Simavilla, Ana	CA	IAC-12.A2.5.7
Law, Emily	A	IAC-12.A3.2D.1
Lawal, Abdul	A	IAC-12.B4.1.6
Lawal, Abdul	A	IAC-12.B4.7B.2
Lawrence, Dale	CA	IAC-12.C4.3.2
Laxmiprasad, A.S.	A	IAC-12.A3.2B.9
Laxmiprasad, A.S.	CA	IAC-12.A3.3A.10
Laygo, Katrina	A	IAC-12.B1.5.2
Lazare, Bruno	CA	IAC-12.D5.1.6
Lazzarini, Andrea	CA	IAC-12.A1.7.2
Lazzarini, Remo	CA	IAC-12.A1.7.2
Le Fevre, Clemence	A	IAC-12.A6.4.1
Le Floch, Caroline	CA	IAC-12.A5.3-B3.6.5
Le Gallou, Nicolas	CA	IAC-12.C3.3.2
Lebat, Vincent	CA	IAC-12.B1.3.4

Lebofsky, Matt	CA	IAC-12.A4.1.2
Lebofsky, Matt	CA	IAC-12.A4.1.3
Lechtenberg, Travis	CA	IAC-12.C1.6.10
Leclerc, Gilles	CA	IAC-12.B3.1.6
Lecoutre, Carole	CA	IAC-12.A2.6.9
Lederer, Susan M.	CA	IAC-12.A6.1.1
Lederer, Susan M.	CA	IAC-12.A6.1.6
Ledkov, Alexander	CA	IAC-12.D4.3.9
Lee, Bo	CA	IAC-12.B4.6A.10
Lee, Byung Soo	CA	IAC-12.E3.4.12
Lee, Chialing	CA	IAC-12.A1.7.3
Lee, Dong-Hun	CA	IAC-12.B4.2.4
Lee, Kyun Ho	A	IAC-12.A3.2D.27
Lee, Minwoo	CA	IAC-12.C4.2.18
Lee, Nicolas	CA	IAC-12.E1.1.4
Lee, Sangbok	A	IAC-12.C4.1.13
Lee, Tai Sik	A	IAC-12.A5.1.4
Lefevre, Philippe	CA	IAC-12.A1.8.2
Legros, Guillaume	A	IAC-12.A2.2.2
Legros, Guillaume	A	IAC-12.A2.2.3
Legros, Jean-Claude	CA	IAC-12.A2.2.6
Lehner, Susanne	CA	IAC-12.B1.5.1
Lehnhardt, Kris	A	IAC-12.E1.4.7
Lehnhardt, Kris	A	IAC-12.YPVF.2.6
Leitu, Ahto	CA	IAC-12.C3.4.5
Lemelin, Myriam	A	IAC-12.E2.1.7
Lemmens, Stijn	CA	IAC-12.A6.2.17
Lemmens, Stijn	CA	IAC-12.A6.6.8
Lenard, Roger X.	A	IAC-12.C3.3.10
Lenard, Roger X.	A	IAC-12.D4.3.12
Lenkova, Liubov	CA	IAC-12.A1.8.5
Lentsch, Aron	A	IAC-12.D2.9-D6.2.5
Leofanti, Josè Luis	CA	IAC-12.C2.1.1
Leontiev, Anton	CA	IAC-12.B4.2.3
Leroy, Fabien	A	IAC-12.C3.3.2
Lester, Daniel	CA	IAC-12.D3.1.3
Letschnik, Jürgen	A	IAC-12.YPVF.1.3
Letschnik, Jürgen	CA	IAC-12.B2.4.5
Letschnik, Jürgen	A	IAC-12.B2.4.6
Levay, Zoltan	CA	IAC-12.E1.8.5
Leveton, Lauren	CA	IAC-12.B3.3.6
Levin, Eugene	CA	IAC-12.A6.6.7
Levit, Creon	CA	IAC-12.A6.5.11
Levit, Creon	CA	IAC-12.B4.6B.11
Levochkin, Petr	A	IAC-12.C4.1.10
Levora, Tomas	A	IAC-12.B1.4.12
Levy, Agnes	CA	IAC-12.A2.1.1
Levy, Agnes	CA	IAC-12.B1.3.4
Lewis, Hugh G.	CA	IAC-12.A6.2.20
Lewis, Hugh G.	A	IAC-12.A6.4.3
Lewis, Hugh G.	A	IAC-12.A6.5.4
Lewis, Hugh G.	CA	IAC-12.D1.4.4
Leys, Natalie	CA	IAC-12.A1.2.11
Leyssens, Jan	CA	IAC-12.B5.2.9
Li, Alan	A	IAC-12.A6.1.8
LI, Bin	CA	IAC-12.C4.3.12
Li, Dun	CA	IAC-12.C2.7.21
Li, Dun	CA	IAC-12.C2.7.22
Li, Dun	A	IAC-12.C2.7.26
Li, Fei	CA	IAC-12.A1.4.11
Li, Hao	CA	IAC-12.B1.3.11
Li, Hua	CA	IAC-12.C2.8.13
Li, Jingtao	A	IAC-12.B3.2.4
Li, Jingyang	CA	IAC-12.C1.7.13
Li, Junfeng	CA	IAC-12.C1.1.9
Li, Junfeng	CA	IAC-12.A5.1.10
Li, Junfeng	CA	IAC-12.C1.7.13
Li, Junhai	CA	IAC-12.C4.2.13
Li, Junhai	CA	IAC-12.C4.2.17
Li, Junhai	A	IAC-12.C4.2.20
Li, Junhai	CA	IAC-12.E2.3.5
Li, Junning	CA	IAC-12.C2.4.4
Li, Kang	CA	IAC-12.B2.3.13
Li, Kun	CA	IAC-12.A3.2A.6
Li, Kun	CA	IAC-12.A3.2D.17
Li, Li	CA	IAC-12.B2.2.16
Li, Li	A	IAC-12.B2.5.12
Li, Ligang	A	IAC-12.A3.2D.37
Li, Longfei	A	IAC-12.C4.3.6
Li, Ming	A	IAC-12.B3.1.8
Li, Ming	CA	IAC-12.C3.1.7
Li, Ming-feng	CA	IAC-12.B2.1.15
Li, Nan	A	IAC-12.D1.3.5
Li, Ping	CA	IAC-12.B4.3.3
Li, Shuguang	A	IAC-12.C1.4.5
Li, Shuguang	A	IAC-12.C2.3.17
Li, Shuguang	CA	IAC-12.B2.5.13
Li, Xiaokang	A	IAC-12.C4.5.15
Li, Xintian	CA	IAC-12.C4.2.13
Li, Xintian	A	IAC-12.C4.2.19
Li, Xintian	CA	IAC-12.E2.3.5
Li, Xuan	CA	IAC-12.D5.1.1
Li, Yanming	CA	IAC-12.B1.3.11
Li, Yanming	A	IAC-12.B1.3.17
Li, Yi	CA	IAC-12.A6.3.5
Li, Yinan	A	IAC-12.B1.3.11
Li, Zuhong	CA	IAC-12.B2.6.13
Li-Xia, LIU	A	IAC-12.B1.3.13
Liang, He	CA	IAC-12.B2.6.12
Liang, Jie	A	IAC-12.C2.1.15
Liang, Xiaofeng	CA	IAC-12.C3.3.3
Liang, Xingang	CA	IAC-12.A5.1.10
Liang, Zongchuang	CA	IAC-12.B2.4.12
Liapi, Marianthi	CA	IAC-12.A1.1.14
Licheri, Roberta	CA	IAC-12.D3.3.9
Liddle, Doug	CA	IAC-12.B4.6B.3
Liebold, Florian	A	IAC-12.C2.3.2
Lightsey, Glenn	CA	IAC-12.B4.8.8
Likhvantsev, Anatoly	CA	IAC-12.C4.9.9
Lillmaa, Henri	CA	IAC-12.C3.4.5
Lim, Alane	CA	IAC-12.B4.8.4
Lim, Chulwoo	CA	IAC-12.B4.6A.12
Lim, Jae Hyuk	CA	IAC-12.C2.1.5
Lim, Jae Hyuk	CA	IAC-12.A3.2B.7
Lin, Chen-Tsung	CA	IAC-12.B1.1.5
Lin, Jinyong	CA	IAC-12.A1.4.12
Lin, Qingguo	CA	IAC-12.C4.1.7
Lin, Robert P.	CA	IAC-12.B4.2.4
Lin, Wei	A	IAC-12.C4.5.14
Lin, Zhiyong	CA	IAC-12.C4.5.14
Lin, Zhou	A	IAC-12.B3.7.1
Linaraki, Despoina	CA	IAC-12.A1.1.14
Lindenmoyer, Alan	CA	IAC-12.D2.1.5
Lindner, Robert	CA	IAC-12.A1.5.10
Lindstrom, Kurt L.	CA	IAC-12.D3.4.2
Ling, Jer	CA	IAC-12.B1.1.5
Ling, Jer	CA	IAC-12.B4.4.8
Lingenauber, Kay	CA	IAC-12.A3.4.10
Linna, Wang	A	IAC-12.D2.5.10
Lino, Carlos	A	IAC-12.D6.1.1
Lino, Carlos	A	IAC-12.D3.4.12
Lino, Carlos	CA	IAC-12.D1.6.5
Lion, Guillaume	A	IAC-12.C1.7.8
Liou, J.-C.	A	IAC-12.A6.1.1
Liou, J.-C.	CA	IAC-12.A6.3.7
Lipaev, Andrey	CA	IAC-12.A2.7.6
Lippolis, Giuseppe	CA	IAC-12.A3.3C.5
List, Meike	A	IAC-12.A2.1.2
Little, Frank	A	IAC-12.C3.2.8
Liu, Bing	A	IAC-12.B2.3.13
Liu, Bo	A	IAC-12.D1.3.7
Liu, Chnagguo	A	IAC-12.C4.1.7
Liu, Feng	A	IAC-12.C2.8.13
Liu, Gang	CA	IAC-12.A6.3.11
Liu, Hongbing	A	IAC-12.C2.4.24
Liu, Hongjun	CA	IAC-12.C4.3.12
Liu, Huicui	A	IAC-12.B2.2.16
Liu, Huicui	CA	IAC-12.A3.2D.25
Liu, Huicui	CA	IAC-12.B2.5.12
Liu, Jing	CA	IAC-12.A6.1.19
Liu, Jun	CA	IAC-12.C4.5.13
Liu, Kun	CA	IAC-12.B2.3.12
Liu, Lin	CA	IAC-12.A3.5.10
Liu, Lin	CA	IAC-12.B1.5.10
Liu, Naijin	CA	IAC-12.B2.4.12
Liu, Naijin	CA	IAC-12.B2.5.14
Liu, Qiong	A	IAC-12.A5.2.8
Liu, Sen	A	IAC-12.A6.3.5
Liu, Shang	A	IAC-12.C4.3.12
Liu, Shengli	CA	IAC-12.C1.7.5
Liu, Tao	CA	IAC-12.A3.2D.24
Liu, Wanfu	CA	IAC-12.D5.1.1
Liu, Wangwang	A	IAC-12.A3.2D.3
LIU, Wu	CA	IAC-12.C1.3.5
Liu, Xiaodong	CA	IAC-12.C1.1.9
Liu, Xiaodong	A	IAC-12.C1.7.7
Liu, Xing	CA	IAC-12.A6.3.17
Liu, Yi	CA	IAC-12.B4.4.12
Liu, Yi-wei	A	IAC-12.B4.2.5
LIU, Yong	CA	IAC-12.C1.3.5
Liu, Zejun	CA	IAC-12.C4.8.9
LIU, Zhanguo	CA	IAC-12.C4.3.6
Liu, Zhidong	CA	IAC-12.A6.3.11
Liu, Zhou	CA	IAC-12.A3.2D.38
Liu, Zhou	A	IAC-12.C2.7.19
Livio, Mario	CA	IAC-12.E1.8.5
Liyin, Wu	A	IAC-12.C4.6.11
Lizandra, Oriol	CA	IAC-12.C1.5.11
Lizunov, Georgiy	CA	IAC-12.B4.2.3
Lizy-Destrez, Stéphanie	A	IAC-12.A5.4.12
Lladó, Neus	A	IAC-12.C1.6.7
Llamedo Soria, Mariano	CA	IAC-12.A1.2.1
Llorens del Rìo, Daniel	CA	IAC-12.B2.2.4
Lo, Martin	CA	IAC-12.C1.7.4
Lobascio, Cesare	CA	IAC-12.A1.6.19
Lobascio, Cesare	CA	IAC-12.A1.8.10
Lobascio, Cesare	A	IAC-12.A1.8.14
Lockwood, Mary Kae	A	IAC-12.A3.5.2
Locoche, Slim	CA	IAC-12.D2.2.1
Lodiot, Sylvain	CA	IAC-12.A3.4.1
Logsdon, John	A	IAC-12.E3.2.9
Logvinenko, Anatoliy	A	IAC-12.C4.1.6
Lohar, K.A.	CA	IAC-12.A3.2B.9
Lohmeyer, Whitney	A	IAC-12.E3.2.10
Loizeau, Damien	CA	IAC-12.A1.5.1
Lollock, Rita	CA	IAC-12.YPVF.1.1
Lombardi, Riccardo	A	IAC-12.B4.7B.6
Lombardi, Riccardo	A	IAC-12.B5.2.11
Longo, Francesco	CA	IAC-12.B1.2.8
Longo, Francesco	CA	IAC-12.B1.3.8
Longo, Francesco	CA	IAC-12.B4.6A.7
Longo, Francesco	CA	IAC-12.A3.5.16
Lopes, Filippo	CA	IAC-12.B5.2.11
Lopez Villafranca, Brenda Carolina	CA	IAC-12.D1.6.5
Lorenzini, Enrico C.	CA	IAC-12.A6.4.7
Lorenzoni, Andrea	CA	IAC-12.A3.2D.10
Lorenzoni, Andrea	CA	IAC-12.D3.3.9
Lorenzoni, Leila	CA	IAC-12.A3.3A.4
Loreti, Elisabetta	CA	IAC-12.A1.7.2
Loureiro, Geilson	CA	IAC-12.B4.2.8
Loureiro, Geilson	CA	IAC-12.B4.1.5
Loureiro, Geilson	A	IAC-12.D1.5.5
Loureiro, Geilson	CA	IAC-12.D3.4.12
Loureiro, Geilson	A	IAC-12.D1.6.5
Loureiro, Geilson	CA	IAC-12.D1.6.7
Loures da Costa, Luis Eduardo	CA	IAC-12.D2.7.10
Loverich, John	CA	IAC-12.C4.8.4
Lowe, Christopher	A	IAC-12.B1.2.17
Lowe, Christopher	CA	IAC-12.E2.3.7
Lowery, Eric	CA	IAC-12.A3.2C.1
Lozano, Paulo	CA	IAC-12.C4.4.13
Lu, Duanjun	A	IAC-12.B1.3.15
Lu, Yu	CA	IAC-12.D3.1.1
Lu, Zhuoyan	A	IAC-12.E7.1.25
Lu, Zhuoyan	CA	IAC-12.A6.6.1
Lubov, Strogonova	A	IAC-12.A1.6.11
Lucarini, Adriana Celia	CA	IAC-12.A1.7.8
Lucas, Robert	CA	IAC-12.A5.3-B3.6.4
Luchitskaya, Elena	A	IAC-12.A1.2.2
Luchitskaya, Elena	CA	IAC-12.A1.2.21
Ludicke, Fabian	CA	IAC-12.A3.4.10
Luft, Friedrich C.	CA	IAC-12.A1.8.5
Luglio, Michele	CA	IAC-12.B2.3.7
Luigi, Arione	CA	IAC-12.C4.1.2
Lukasik, Artur	CA	IAC-12.E1.5.10
Lukaszczyk, Agnieszka	CA	IAC-12.E3.1.2
Lukaszczyk, Agnieszka	A	IAC-12.E3.1.7
Lukaszczyk, Agnieszka	CA	IAC-12.E3.4.3
Lukenjuk, Adol'f	CA	IAC-12.B4.2.3
Lundquist, Charles	A	IAC-12.E4.3A.4
Lungu, Paul	CA	IAC-12.E2.3.4
Lunine, Jonathan	CA	IAC-12.D3.1.7
Luo, Jianjun	CA	IAC-12.A3.2D.20
Luo, Jianjun	CA	IAC-12.B2.5.13
Luo, Shi-bin	CA	IAC-12.C4.5.13
Lupi, Adriano	CA	IAC-12.B1.4.1
Lupo, Stefano	CA	IAC-12.E7.4.3
Lupovka, Valery	CA	IAC-12.A3.4.10
Luu, Timothy	CA	IAC-12.C1.2.13
Lv, Qiang	CA	IAC-12.B2.4.12
Lyall, Francis	A	IAC-12.E7.5.9
Lyles, Garry	CA	IAC-12.D2.8.3
Lyn, Craig	CA	IAC-12.D3.3.2
Lyskov, Denis	CA	IAC-12.D2.1.3
Lysova, Natalya	CA	IAC-12.A1.2.10
Lysova, Natalya	CA	IAC-12.A1.3.4
Lämmerzahl, Claus	CA	IAC-12.A2.1.9
Lätt, Silver	CA	IAC-12.B4.5.12
Lätt, Silver	CA	IAC-12.C3.4.5
López Rodríguez, Flor	A	IAC-12.A3.2D.4
Löscher, Martin	CA	IAC-12.A5.4.8
Lübke-Ossenbeck, Bernard	A	IAC-12.D1.3.11
Lücke, Oliver	CA	IAC-12.B5.1.8
Lücking, Charlotte	A	IAC-12.E2.1.4
Lücking, Charlotte	CA	IAC-12.E2.3.7
Lütkebohle, Ingo	CA	IAC-12.A5.3-B3.6.1

M

Name	Role	Paper
M, Rajasekhar	A	IAC-12.B1.5.14
M, RAJU	A	IAC-12.D5.1.3
M, Viswanathan	A	IAC-12.A3.3A.10
M C, Dathan	CA	IAC-12.D2.2.14
Ma, Bin	CA	IAC-12.C4.2.17
Ma, Haibo	CA	IAC-12.B4.6A.10
Ma, Jifeng	A	IAC-12.A1.4.12
Ma, Qiang	A	IAC-12.B2.4.13
Ma, Weihua	CA	IAC-12.A3.2D.20
Ma, Weihua	CA	IAC-12.C2.3.17
Ma, Weihua	A	IAC-12.B2.5.13
Ma, Xingrui	CA	IAC-12.C1.7.7
Ma, Zhaoxia	CA	IAC-12.A6.3.5
Maass, Holger	CA	IAC-12.B1.5.1
Macau, Elbert E.N.	CA	IAC-12.A3.4.15
Macau, Elbert E.N.	A	IAC-12.C1.7.10
Maccone, Claudio	A	IAC-12.A4.1.8
Maccone, Claudio	A	IAC-12.A4.2.4
Macdonald, Malcolm	CA	IAC-12.B1.2.16
Macdonald, Malcolm	CA	IAC-12.B1.2.17
Macdonald, Malcolm	CA	IAC-12.C1.5.5
Macdonald, Malcolm	CA	IAC-12.D3.3.7
MacDonell, Kirsten	CA	IAC-12.B6.1.3
MacDougall, Hamish	CA	IAC-12.A1.1.17
Machado, Renato	CA	IAC-12.B4.1.5
Machado, Renato	CA	IAC-12.B1.3.12
Machado, Renato	CA	IAC-12.C3.4.10
Machado Paulo, Cláudio	CA	IAC-12.C3.4.10
Mack, Adam	CA	IAC-12.A3.3A.17

MacKenzie Jr., William I.	CA	IAC-12.D3.4.11
Mackey, Paul	CA	IAC-12.A3.2A.9
Maclean, Craig	A	IAC-12.C1.9.7
MacLeish, Marlene	A	IAC-12.E1.5.15
Maddalena, Ron	CA	IAC-12.A4.1.3
Maddè, Roberto	CA	IAC-12.B2.3.8
Mader, Marianne	A	IAC-12.A5.3-B3.6.3
Mader, Marianne	A	IAC-12.A3.2C.5
Mader, Marianne	CA	IAC-12.B3.7.8
Madhava, Vasantha	CA	IAC-12.B6.3.11
Magin, Thierry	CA	IAC-12.C2.7.8
Magnani, Piergiovanni	A	IAC-12.C3.2.3
Magnani, Piergiovanni	CA	IAC-12.A3.3B.8
Magnani, Piergiovanni	CA	IAC-12.A3.3C.3
Magro, Alessio	CA	IAC-12.A4.1.3
Mahapatra, Pooja	CA	IAC-12.D1.2.3
Mahapatra, Pooja	CA	IAC-12.B5.2.9
Mahesh, Sarnavi	CA	IAC-12.A5.1.5
Mahmoudi, Hadi	CA	IAC-12.E7.2.13
Maier, Philipp	A	IAC-12.A6.6.1
Maignan, Michel	CA	IAC-12.E1.9.1
Mailland, Filippo	A	IAC-12.C3.3.5
Mailland, Filippo	A	IAC-12.A3.3B.7
Mairopoulos, Dimitris	CA	IAC-12.A1.1.14
Maiwald, Volker	CA	IAC-12.D1.1.5
Maiwald, Volker	A	IAC-12.D1.1.6
Maiwald, Volker	CA	IAC-12.C3.3.7
Maiwald, Volker	CA	IAC-12.A1.6.20
Maiwald, Volker	A	IAC-12.A5.4.8
Majid, Abdul	A	IAC-12.A3.3C.11
Makapela, Lulekwa	A	IAC-12.B1.1.10
Makapela, Lulekwa	CA	IAC-12.E1.5.12
Makarov, Oleksandr	CA	IAC-12.B4.2.3
Maki, Justin	CA	IAC-12.A3.3A.7
Maki, Kenichiro	CA	IAC-12.C3.2.2
Makihara, Kanjuro	CA	IAC-12.C3.3.9
Makihara, Kanjuro	A	IAC-12.C2.5.6
Malagar, Leo	A	IAC-12.E7.7-B3.8.7
Malagar, Marlo	CA	IAC-12.E7.7-B3.8.7
Malan, Stefano	CA	IAC-12.A3.2D.34
Malapert, Jean-Christophe	CA	IAC-12.D5.2.11
Malhotra, Vinayak	A	IAC-12.A2.2.18
Maliet, Eric	A	IAC-12.B1.2.4
Maliga, Kate	CA	IAC-12.E6.1.5
Malloy, Vanja	A	IAC-12.E5.5A.8
Maltchev, S.	CA	IAC-12.A1.4.17
Mance, Stephen	CA	IAC-12.C1.6.10
Mancini, Pierluigi	CA	IAC-12.B5.2.7
Mancini, Roberto	A	IAC-12.D2.1.2
Mandarino, Carmelo	A	IAC-12.A3.2D.10
Mangeot, Alexandre	CA	IAC-12.A5.1.2
Mangeot, Alexandre	CA	IAC-12.A1.5.7
Mangeot, Alexandre	A	IAC-12.A5.3-B3.6.2
Mangraviti, Elio	CA	IAC-12.C2.1.13
Mangraviti, Elio	CA	IAC-12.C2.4.16
Mangraviti, Elio	CA	IAC-12.B4.5.11
Mangraviti, Elio	CA	IAC-12.C2.9.5
Manhart, Markus	CA	IAC-12.C2.5.9
Mankins, John C.	A	IAC-12.C3.1.3
Mankins, John C.	CA	IAC-12.C3.1.6
Mankins, John C.	CA	IAC-12.D3.1.1
Mankins, John C.	CA	IAC-12.D4.4.3
Mann, Ian	CA	IAC-12.B1.3.5
Mann, Ian	CA	IAC-12.E1.3.11
Mann, Paul	CA	IAC-12.A3.3A.17
Mantellato, Riccardo	CA	IAC-12.A6.4.7
Manzella, David H.	CA	IAC-12.C4.4.2
Manzella, David H.	CA	IAC-12.C4.4.6
Marabucci, Manuela	CA	IAC-12.B2.1.10
Marboe, Irmgard	A	IAC-12.E7.5.3
Marc, Róbert	A	IAC-12.A3.3A.12
Marcello, Javier	CA	IAC-12.B1.5.5
Marceta, Dusan	A	IAC-12.A3.3C.8
Marchand, Eric	CA	IAC-12.A6.5.9
Marchand, Laurent	CA	IAC-12.D5.1.4
Marchese, Nazzareno	CA	IAC-12.B5.1.3
Marchetti, Mario	CA	IAC-12.C2.2.12
Marchetti, Mario	CA	IAC-12.C2.4.1
Marchetti, Mario	CA	IAC-12.C2.7.3
Marchetti, Mario	CA	IAC-12.C2.8.1
Marchetti, Mario	CA	IAC-12.A3.3C.4
Marchetti, Mario	CA	IAC-12.C2.9.9
Marchisio, Sergio	A	IAC-12.E7.1.1
Marchisio, Sergio	A	IAC-12.E7.2.2
Marciacq, Jean-Bruno	A	IAC-12.D6.1.10
MARCO, TELARA	CA	IAC-12.C4.9.1
Marcos, Jesus	CA	IAC-12.D1.2.9
Marcozzi, Massimiliano	CA	IAC-12.C1.4.7
Marcuccio, Salvo	CA	IAC-12.D2.3.12
Marcuccio, Salvo	A	IAC-12.A1.8.15
Marcy, Geoff	CA	IAC-12.A4.1.3
Mardle, Nic	CA	IAC-12.C3.3.8
Marinan, Anne	CA	IAC-12.E3.2.10
Marino, Giuliano	CA	IAC-12.D2.6.13
Marino, Giuliano	CA	IAC-12.C2.7.6
Marino, Michele	CA	IAC-12.C3.4.1
Marinoni, Silvia	CA	IAC-12.A6.1.3
Marins Chiaradia, Ana Paula	A	IAC-12.E4.1.5
Mario, Cardano	CA	IAC-12.B6.1.7
Marion, Cassandra	CA	IAC-12.A5.3-B3.6.3
Mariotti, Gilles	CA	IAC-12.B2.1.10
Markkanen, Jussi	CA	IAC-12.A6.1.8
Markov-Vetter, Daniela	CA	IAC-12.D5.2.11
Markus, Thorsten	CA	IAC-12.E1.9.5
Marraud, Christine	CA	IAC-12.C4.2.5
Marsetič, Aleš	CA	IAC-12.E1.2.8
Marshall, William	CA	IAC-12.A6.5.11
Marshall, William	CA	IAC-12.B4.6B.11
Marshall-Bowman, Karina	CA	IAC-12.A1.2.11
Marta, Lucia	A	IAC-12.E3.4.11
Martin, Annie	A	IAC-12.E5.1.8
Martin, Annie	A	IAC-12.B6.1.10
Martin-de-Mercado, Gonzalo	A	IAC-12.B5.1.6
Martinelli, Eugenio	A	IAC-12.A2.7.9
Martinez Barrio, Alvaro	CA	IAC-12.C1.2.2
Martini, Paulo Roberto	A	IAC-12.B1.5.11
Martinotti, Giuseppe	A	IAC-12.D1.1.11
Martinotti, Giuseppe	A	IAC-12.B4.5.7
Martins, João Batista dos Santos	CA	IAC-12.B4.1.5
Martins, Sudarshan	CA	IAC-12.A3.2D.32
Martucci, Giovanni	CA	IAC-12.B2.1.11
Marty, Bernard	CA	IAC-12.A3.4.9
Martynov, Maxim	CA	IAC-12.A3.1.11
Martín-Romero, ´José Ramón	CA	IAC-12.C1.2.7
Maru, Yusuke	CA	IAC-12.D2.3.9
Marx, Pierre	A	IAC-12.E5.2.1
Maryen, Yusuf Melianus	CA	IAC-12.E5.2.10
Marziani, Francesco	CA	IAC-12.B6.1.1
Marín-Yaseli de la Parra, Julia	A	IAC-12.E2.2.2
MAS, MIGUEL	CA	IAC-12.A3.5.15
Masali, Melchiorre	CA	IAC-12.A1.1.19
Masali, Melchiorre	CA	IAC-12.B3.2.8
Masanao, Abe	CA	IAC-12.A3.4.5
Mascetti, Gabriele	A	IAC-12.D2.5.4
Mascetti, Gabriele	CA	IAC-12.A2.6.8
Mascetti, Gabriele	A	IAC-12.A2.7.3
Mascetti, Gabriele	CA	IAC-12.A2.7.9
Masdemont, Josep J.	CA	IAC-12.C1.6.5
Masdemont, Josep J.	CA	IAC-12.C1.6.7
Mase, Robert	CA	IAC-12.A3.4.3
Masiello, Stefano	A	IAC-12.B6.1.7
Mason, James	CA	IAC-12.A6.5.11
Mason, James	A	IAC-12.B4.6B.11
Masri, Sami	CA	IAC-12.C2.5.10
Massimiani, Chiara	A	IAC-12.A1.4.18
Massobrio, Federico	A	IAC-12.D2.6.10
Masson-Zwaan, Tanja	CA	IAC-12.E7.5.8
Masson-Zwaan, Tanja	CA	IAC-12.D2.9-D6.2.5
Mastrangelo, Giorgio	A	IAC-12.C4.2.3
Mastrella, Emanuele	CA	IAC-12.C2.1.1

Masui, Hirokazu	CA	IAC-12.C3.2.5
Masui, Hirokazu	CA	IAC-12.D5.3.13
Mata Calvo, Ramon	CA	IAC-12.B2.2.3
Mataloni, Andrea	A	IAC-12.C2.1.2
Mathers, Naomi	CA	IAC-12.E1.2.3
Mathers, Naomi	A	IAC-12.B5.2.8
Mathiesen, Ragnvald	CA	IAC-12.A2.3.6
Mathisen, Stian Vik	A	IAC-12.B2.4.9
Matloff, Gregory	A	IAC-12.A4.1.11
Matsuda, Seiji	A	IAC-12.D2.7.9
Matsuda, Seiji	A	IAC-12.B4.5.3
Matsui, Makoto	CA	IAC-12.C4.9.6
Matsumoto, Haruhisa	CA	IAC-12.A6.1.14
Matsumoto, Haruhisa	CA	IAC-12.D5.3.10
Matsumoto, Jun	A	IAC-12.C1.7.11
Matsumoto, Koji	CA	IAC-12.C4.4.11
Matsumoto, Koji	A	IAC-12.C2.6.2
Matsumoto, Satoshi	CA	IAC-12.A2.2.1
Matsumoto, Satoshi	CA	IAC-12.A2.5.2
Matsumoto, Satoshi	CA	IAC-12.A2.7.7
Matsumura, Yusuke	CA	IAC-12.B3.2.6
Matsunaga, Yoshiki	A	IAC-12.D5.2.9
Matsuno, Yutaka	CA	IAC-12.D1.3.2
Mattei, Stefania	CA	IAC-12.B1.3.8
Mattoli, Virgilio	CA	IAC-12.A1.7.11
Mattox, Emily	A	IAC-12.A1.6.1
Matunaga, Saburo	CA	IAC-12.C2.2.10
Matus, Galyna	CA	IAC-12.E8.1.2
Matveeva, Tatiana	A	IAC-12.B3.7.2
Matviichuk, Yurii	CA	IAC-12.A1.4.4
Matviichuk, Yuriy	CA	IAC-12.A1.4.9
Matzner, Richard	CA	IAC-12.B4.2.1
Matéo-Vélez, Jean-Charles	CA	IAC-12.D5.3.14
Mauro, Fabrizi	CA	IAC-12.C4.9.4
Maximovsky, Nikolay	CA	IAC-12.B3.2.1
May, Todd A.	A	IAC-12.D2.1.4
May, Todd A.	CA	IAC-12.D2.8.3
Mayorova, Vera	A	IAC-12.B3.3.10
Mayorova, Vera	A	IAC-12.E1.7.2
Mayya, Siddharth	CA	IAC-12.E2.1.3
Mazal, Leonael	CA	IAC-12.C1.2.9
Mazal, Leonel	CA	IAC-12.C1.3.3
Mazzoleni, Andre	A	IAC-12.A3.2D.12
Mazzoleni, Andre	A	IAC-12.A3.3C.7
Mazzoleni, Annalisa	CA	IAC-12.C1.4.9
McAdams, James V.	A	IAC-12.C1.5.6
McBryan, Katherine	A	IAC-12.D1.2.5
McCleese, Daniel	CA	IAC-12.A3.1.10
McCormick, Ray	CA	IAC-12.A3.2B.2
McCoubrey, Ryan	A	IAC-12.A3.2C.2
McCullough, Emily	CA	IAC-12.A5.3-B3.6.3
McCullough, Emily	CA	IAC-12.B3.7.8
McGee, Timothy	CA	IAC-12.A3.2C.1
McGrath, Michael	A	IAC-12.B4.1.9
McGuire, Jill	CA	IAC-12.A5.3-B3.6.4
McHarg, Matthew	CA	IAC-12.B4.6B.1
McInnes, Colin R.	CA	IAC-12.C1.1.13
McInnes, Colin R.	CA	IAC-12.C1.4.2
McInnes, Colin R.	CA	IAC-12.C1.4.12
McInnes, Colin R.	CA	IAC-12.C1.5.1
McInnes, Colin R.	CA	IAC-12.C1.5.13
McInnes, Colin R.	CA	IAC-12.C1.9.10
McIntyre, Joseph	CA	IAC-12.A1.8.2
McIsaac, Kenneth	CA	IAC-12.A3.3B.10
McKay, Chris	CA	IAC-12.A1.5.2
Mckee, David	CA	IAC-12.B1.2.17
McKenna-Lawlor, Susan	CA	IAC-12.E8.1.1
McKenzie, Iain	CA	IAC-12.D1.2.9
McKnight, Darren	CA	IAC-12.A6.2.7
McKnight, Darren	A	IAC-12.A6.5.2
McKnight, Darren	CA	IAC-12.A6.5.14
McLaughlin, Craig	CA	IAC-12.C1.6.10
McLelland, Angela	CA	IAC-12.A6.2.14
McNally, Ian	A	IAC-12.C3.1.9
McNider, Richard	CA	IAC-12.B5.2.3
McNutt, Jr., Ralph L.	A	IAC-12.D3.1.7
McNutt, Jr., Ralph L.	CA	IAC-12.C1.5.6
McNutt, Jr., Ralph L.	A	IAC-12.A3.5.1
McPhee, Jancy	A	IAC-12.E1.8.4
McRobb, Malcolm	CA	IAC-12.A2.3.15
McWilliams, Kathryn	CA	IAC-12.E1.3.11
Mecheraoui, Choukri	CA	IAC-12.A1.2.7
Medina, Martin	CA	IAC-12.E3.2.2
Mehedi, Ibrahim	A	IAC-12.A3.2D.33
Mehoke, Douglas	A	IAC-12.A6.3.6
Mehta, Ajay	CA	IAC-12.B1.2.1
Mehta, Piyush	A	IAC-12.C1.6.10
Meijer, Robert	CA	IAC-12.D1.2.3
Meijerink, Arjan	CA	IAC-12.B2.3.5
Meijerink, Arjan	CA	IAC-12.B2.5.2
Mejia-Kaiser, Martha	A	IAC-12.E7.5.11
Mejía, Alvaro	A	IAC-12.E4.1.4
Melamed, Nahum	A	IAC-12.D1.1.8
Melamed, Nahum	A	IAC-12.D4.3.13
Melatti, Igor	CA	IAC-12.D5.2.11
Melicher, Milos	CA	IAC-12.D2.6.14
Melinyshyn, Alexander	CA	IAC-12.A1.2.12
Mellab, Karim	CA	IAC-12.B4.3.1
Mellab, Karim	CA	IAC-12.B4.4.7
Melo, Marco Antonio A.	CA	IAC-12.A1.7.8
Melvin, Leland	A	IAC-12.E1.1.1
Memoli, Aniello	CA	IAC-12.B1.3.10
Menciassi, Arianna	CA	IAC-12.A1.7.11
Mendes Junior, Odim	CA	IAC-12.B4.1.5
Mendez, Bryan	CA	IAC-12.E1.2.11
Mendez, Natally	CA	IAC-12.E1.2.6
Meneghin, Ivan	CA	IAC-12.B4.7A.4
Meng, Lifei	A	IAC-12.C2.6.11
Meng, Linzhi	CA	IAC-12.A3.2A.5
Meng, Linzhi	CA	IAC-12.A3.2B.6
Meng, Yansong	CA	IAC-12.B2.6.14
Menicucci, Alessandra	A	IAC-12.A6.1.11
Menon, Surya	CA	IAC-12.A3.2B.9
Merali, Tahir	A	IAC-12.A1.2.12
Mercolino, Mattia	CA	IAC-12.B2.1.10
Mercolino, Mattia	CA	IAC-12.B2.3.8
Meriggiola, Rachele	A	IAC-12.A3.5.20
Merikallio, Sini	CA	IAC-12.D4.1.4
Merino, Juan	CA	IAC-12.C2.7.1
Merino, Mario	A	IAC-12.C4.4.21
Merit, Sebastian	CA	IAC-12.A6.4.8
Merkov, Alekcander	CA	IAC-12.C4.8.2
Merotto, Laura	CA	IAC-12.C4.2.25
Merotto, Laura	CA	IAC-12.C4.2.27
Merz, Klaus	CA	IAC-12.A6.2.17
Meschini, Alberto	CA	IAC-12.C2.2.6
Messerschmid, Ernst	CA	IAC-12.D1.1.9
Messerschmid, Ernst	CA	IAC-12.A1.6.4
Messerschmid, Ernst	CA	IAC-12.E1.6.8
Messerschmid, Ernst	CA	IAC-12.B3.7.13
Messidoro, Piero	CA	IAC-12.D3.2.1
Messidoro, Piero	CA	IAC-12.B4.8.3
Mestre, Jose M.	CA	IAC-12.A1.1.18
Metri, Vithal	CA	IAC-12.B6.2.13
Metris, Gilles	CA	IAC-12.A2.1.1
Metris, Gilles	CA	IAC-12.C1.7.8
Metris, Gilles	CA	IAC-12.C1.7.9
Metsker, Yuriy	CA	IAC-12.E2.3.4
Metz, Manuel	CA	IAC-12.A6.5.3
Meyen, Forrest	CA	IAC-12.A1.6.6
Meyen, Forrest	A	IAC-12.A1.6.7
Meyer, Mike	A	IAC-12.D2.3.2
Mezyk, Lukasz	CA	IAC-12.C4.4.28
Mhatre, Nishchay	CA	IAC-12.B4.1.8
Mi, Hong	CA	IAC-12.B2.6.13
Mialdun, Aliaksandr	CA	IAC-12.A2.3.12
Mialdun, Aliaksandr	CA	IAC-12.A2.4.5
Mialdun, Aliaksandr	CA	IAC-12.A2.4.10
Micaloni, Emiliano	A	IAC-12.B6.3.8
Michaelis, Harald	CA	IAC-12.A3.4.10

Michaud, Stéphane	CA	IAC-12.D3.3.5
Michel, Patrick	CA	IAC-12.A3.4.9
Micheletti, David	A	IAC-12.C4.2.10
Micheletti Cremasco, Margherita	CA	IAC-12.A1.1.19
Michelot, David	CA	IAC-12.D2.5.1
Mick, Alan	A	IAC-12.D1.5.1
Middleton, Kevin	CA	IAC-12.E6.2.11
Miesner, Thomas	CA	IAC-12.B1.2.2
Migliaccio, Alessandro	A	IAC-12.E2.2.5
Migliaccio, Alessandro	A	IAC-12.A6.5.13
Mihara, Shoichiro	CA	IAC-12.D1.4.8
Mikhail, Rudnykh	CA	IAC-12.C4.1.2
Mikhailov, Alexander	CA	IAC-12.E6.4-D4.2.4
Mikrin, Evgeny	A	IAC-12.B3.2.5
Milani Comparetti, Andrea	CA	IAC-12.A6.1.18
Milani Comparetti, Andrea	CA	IAC-12.A3.5.4
Milanič, Blaž	CA	IAC-12.B5.2.9
Miles, David	A	IAC-12.B1.3.5
Miles, David	A	IAC-12.E1.3.11
Miller, David	CA	IAC-12.B2.1.8
Miller, David	CA	IAC-12.E1.3.9
Miller, Ethan	CA	IAC-12.B5.2.4
Miller, Kevin	A	IAC-12.B2.2.12
Miller, Kevin	A	IAC-12.B4.5.9
Miller, Matthew	A	IAC-12.A3.3A.11
Milova, Praskovia	CA	IAC-12.C4.2.25
Mimasu, Yuya	CA	IAC-12.D1.1.3
Mimasu, Yuya	A	IAC-12.C1.2.11
MINAMI, Yoshinori	CA	IAC-12.D2.4.1
Minamino, Hiroyuki	CA	IAC-12.A3.4.5
Minei, Giovanni	CA	IAC-12.E1.7.11
Mineiro, Michael	CA	IAC-12.E3.2.2
Ming, An	CA	IAC-12.B6.3.7
Mingbo, Sun	A	IAC-12.C4.5.5
Mingione, Giuseppe	CA	IAC-12.D1.3.6
Mingione, Giuseppe	CA	IAC-12.D2.3.7
Mingireanu, Florin	CA	IAC-12.C4.2.24
Mingireanu, Florin	A	IAC-12.C4.5.4
Mingireanu, Florin	CA	IAC-12.C4.6.12
Mingireanu, Florin	A	IAC-12.D2.7.8
Mingotti, Giorgio	CA	IAC-12.C1.2.9
Mingotti, Giorgio	CA	IAC-12.C1.4.3
Mingtao, Li	A	IAC-12.C1.5.12
Minisci, Edmondo	CA	IAC-12.B4.3.7
Minjea, Tahk	CA	IAC-12.C1.3.2
Minnifield Cheeks, Nona	A	IAC-12.E5.1.12
Minnifield Cheeks, Nona	A	IAC-12.E5.2.8
Minoves, Marti	A	IAC-12.D3.3.6
Minoves, Marti	A	IAC-12.B6.2.14
Minster, Olivier	A	IAC-12.A2.2.2
Minster, Olivier	CA	IAC-12.B3.3.5
Miokovic, Tanja	CA	IAC-12.A1.2.17
Miranda, Jr., Hector	CA	IAC-12.A1.4.8
Mirshams, Mehran	A	IAC-12.D1.1.13
Mirza, Sajid	CA	IAC-12.C2.8.11
Misener, Lowell	CA	IAC-12.A1.7.4
Mishne, David	CA	IAC-12.C1.5.3
Mishra, Mayank	CA	IAC-12.E1.7.9
Mishra, Nishith	CA	IAC-12.A6.6.2
Mishra, Saumyaketu	CA	IAC-12.B2.6.2
Misra, Arun	CA	IAC-12.D4.3.8
Misra, Arun	CA	IAC-12.D4.3.9
Misra, Arun	CA	IAC-12.C1.9.4
Misuri, Tommaso	A	IAC-12.C4.4.1
Mitri, Giuseppe	CA	IAC-12.A3.5.8
Mitsugu, Okawa	CA	IAC-12.B2.4.4
Miura, Amane	A	IAC-12.B2.5.6
Miura, Yoshinori	CA	IAC-12.D1.6.8
Miyakawa, Takehiro	A	IAC-12.C3.2.4
Miyakawa, Takehiro	CA	IAC-12.C3.2.5
Miyake, Masazumi	CA	IAC-12.B3.1.5
Miyatake, Isao	A	IAC-12.B4.4.5
Miyazaki, Eiji	CA	IAC-12.C2.6.8
Miyazaki, Eiji	CA	IAC-12.D5.3.11
Miyazaki, Yasuyuki	A	IAC-12.C2.2.7
Mizuno, Takahide	CA	IAC-12.B2.3.1
Moccia, Antonio	CA	IAC-12.B1.6.9
Modi, Hemil	CA	IAC-12.E3.1.4
Modi, Hemil	CA	IAC-12.B1.5.8
Moeckel, Marek	CA	IAC-12.A6.4.10
Moeckel, Marek	CA	IAC-12.A6.5.3
Moen, Jøran	CA	IAC-12.E1.3.11
Moens, Sarah	A	IAC-12.E7.4.4
Moessner, Dawn P.	CA	IAC-12.C1.5.6
Mohammed, S.O.	CA	IAC-12.B1.4.11
Mohammed, S.O.	CA	IAC-12.B1.5.4
Mohammed, Seidu	A	IAC-12.B1.5.3
Mohammed, Seidu	CA	IAC-12.B1.5.3
Mohan, Aparna	CA	IAC-12.A3.3A.10
Moiseev, Sergey	CA	IAC-12.B3.2.5
Moissl, Ulrich	CA	IAC-12.A1.8.5
Mojahed, M.	CA	IAC-12.A2.3.7
Molano Jimenez, Andres	CA	IAC-12.A3.2D.34
Molina, Giovanni	CA	IAC-12.E5.5B.2
Molina, Rafael	CA	IAC-12.D2.5.6
Molla Ahmadi Dehaghi, Ghazaleh	CA	IAC-12.E1.9.8
Mollicone, Daniel	CA	IAC-12.A1.1.5
Mollinedo, Luis	CA	IAC-12.C1.2.7
Molotkov, Vladimir	CA	IAC-12.A2.7.6
Molotov, Igor	CA	IAC-12.A6.1.4
Molotov, Igor	A	IAC-12.A6.1.10
Mondelo, Josep-Maria	A	IAC-12.C1.6.9
Monfort, Vincent	CA	IAC-12.A1.1.21
Monge, Angel	A	IAC-12.B1.4.5
Mongrard, Olivier	A	IAC-12.C1.2.1
Monici, Monica	CA	IAC-12.A1.7.11
Monk, Timothy	A	IAC-12.D2.8.3
Monna, Bert	CA	IAC-12.B4.7A.3
Monna, Bert	CA	IAC-12.B4.6A.9
Monserrat-Filho, José	A	IAC-12.E7.5.6
Montebugnoli, Stelio	CA	IAC-12.A4.1.5
Montebugnoli, Stelio	CA	IAC-12.A4.1.6
Monteverde, Frederic	A	IAC-12.C2.4.2
Monti, Francesco Maria	CA	IAC-12.B3.3.11
Monti, Francesco Maria	CA	IAC-12.A2.5.6
Monti, Riccardo	A	IAC-12.C2.2.3
Monti, Riccardo	CA	IAC-12.C2.2.8
Monti, Riccardo	CA	IAC-12.C2.2.11
Monti, Riccardo	CA	IAC-12.C2.3.6
Monti, Riccardo	CA	IAC-12.C1.8.11
Monti, Rodolfo	CA	IAC-12.D2.3.1
Monzani, Maria Rosa	CA	IAC-12.C4.2.25
Mooij, Erwin	CA	IAC-12.A3.2D.3
Mooij, Erwin	CA	IAC-12.D1.6.11
Moon, Scott G.	CA	IAC-12.B3.3.12
Moore, Christopher	A	IAC-12.A3.1.5
Moore, Steven	CA	IAC-12.A1.1.17
Moores, John	CA	IAC-12.A3.3B.10
Moores, John	CA	IAC-12.A5.3-B3.6.3
Moores, John	CA	IAC-12.B3.7.8
Moral, Andoni G.	CA	IAC-12.A3.3C.2
Morani, Gianfranco	CA	IAC-12.D2.4.15
Morani, Gianfranco	CA	IAC-12.D2.6.9
Moreira, Alberto	CA	IAC-12.B4.7B.3
Morell, Gerardo	CA	IAC-12.C3.3.15
Morelli, Barbara	CA	IAC-12.C1.5.7
Moretti, Ivan	CA	IAC-12.C2.4.3
Moretto, Francesca Ines	A	IAC-12.E1.5.6
Morfill, Gregor	CA	IAC-12.A2.6.6
Morfill, Gregor	CA	IAC-12.A2.7.6
Morgan, Chrystal	A	IAC-12.E1.5.5
Mori, Osamu	A	IAC-12.D1.1.3
Mori, Osamu	CA	IAC-12.E5.1.9
Mori, Yuji	CA	IAC-12.D2.1.9
Morikawa, Seiko	A	IAC-12.E7.2.11
Morino, Yoshiki	CA	IAC-12.C1.8.10
Morisset, Caroline-Emmanuelle	CA	IAC-12.E2.1.7
Morita, Yasuhiro	A	IAC-12.D2.1.8
Morita, Yasuhiro	CA	IAC-12.A3.2D.23
Morlet, Catherine	CA	IAC-12.B2.5.1

Moro-Aguilar, Rafael	CA	IAC-12.D2.9-D6.2.5
Moroso, Franco	CA	IAC-12.A3.2C.2
Moroz, Michal	CA	IAC-12.E3.4.5
Moroz, Michal	A	IAC-12.E1.6.6
Morris, Kenneth Bruce	A	IAC-12.D2.8.4
Morris, Nigel	CA	IAC-12.E6.2.11
Morris, Tiffany	CA	IAC-12.A1.1.17
Morris, Trevor	CA	IAC-12.B4.1.11
Morselli, Alessandro	A	IAC-12.A6.2.2
Morukov, Boris	CA	IAC-12.A1.1.5
Morukov, Boris	CA	IAC-12.A1.8.5
Mosenkis, Regina	A	IAC-12.B3.4-B6.5.3
Moser, Charles	A	IAC-12.C4.4.12
Moskalev, Serhiy	CA	IAC-12.B4.2.3
Moskovtsev, Aleksey	CA	IAC-12.A1.7.12
Moss, Richard	CA	IAC-12.B6.3.6
Mosso, Gabriel	CA	IAC-12.C4.4.19
Mostert, Sias	A	IAC-12.B4.1.3
Motil, Brian	CA	IAC-12.A2.7.4
Motil, Susan	A	IAC-12.D2.3.2
Motooka, Norizumi	CA	IAC-12.D1.1.3
Motsyk, Olga	CA	IAC-12.C4.2.28
Motsyk, Olga	CA	IAC-12.E2.3.10
Motte, Erwan	CA	IAC-12.B5.1.6
Mottini, Sergio	CA	IAC-12.C1.8.2
Mottola, Stefano	CA	IAC-12.A3.4.10
Moulin, Hervé	A	IAC-12.E4.1.7
Moura, Denis J.P.	A	IAC-12.B1.6.2
Mouriaux, Pierre-François	CA	IAC-12.E4.1.2
Mouriaux, Pierre-François	CA	IAC-12.E1.9.1
Muddassir, Muhammad	CA	IAC-12.C2.4.5
Mueller, Juergen	CA	IAC-12.A2.1.3
Mueller, Robert	CA	IAC-12.D3.2.6
Mugellesi-Dow, Roberta	CA	IAC-12.D5.2.1
Mugellesi-Dow, Roberta	CA	IAC-12.D5.2.3
Mugellesi-Dow, Roberta	A	IAC-12.D5.2.4
Mugellesi-Dow, Roberta	CA	IAC-12.D5.2.10
Mughal, M.Rizwan	CA	IAC-12.B2.3.2
Mughal, M.Rizwan	A	IAC-12.B4.7A.1
Mughal, M.Rizwan	CA	IAC-12.C3.4.3
Mugnuolo, Raffaele	CA	IAC-12.A3.3C.1
Mukherjee, Utsav	A	IAC-12.E7.1.30
Mula, Prasanta	CA	IAC-12.B2.6.5
Mulac, Brian	CA	IAC-12.A3.2C.1
Muller, Florent	CA	IAC-12.A6.1.13
Mulrooney, Mark	CA	IAC-12.A6.1.1
Munder, Jost	CA	IAC-12.E5.2.10
Munder, Jost	CA	IAC-12.C2.9.3
Mundt, Christian	CA	IAC-12.C2.7.4
Munenaga, Takao	CA	IAC-12.C4.1.5
Munenaga, Takao	CA	IAC-12.D2.4.1
Munk, Michelle	CA	IAC-12.A3.5.17
Munk, Michelle	CA	IAC-12.D2.8.9
Munoz Rodriguez, Maria del Carmen	A	IAC-12.E7.4.8
Murakami, Naomi	A	IAC-12.C1.3.10
Murakami, Naomi	CA	IAC-12.C1.9.3
Muraki, Yasushi	CA	IAC-12.D5.3.10
Muralikrishnan, Sanjeev	CA	IAC-12.B4.1.8
Murata, Fumihiko	A	IAC-12.C4.9.6
Murchie, Scott	A	IAC-12.A3.3A.7
Murtazin, Rafail	A	IAC-12.B3.2.7
Musekamp, Daniel	CA	IAC-12.A6.2.7
Musekamp, Daniel	CA	IAC-12.A6.5.2
Musso, Ivano	CA	IAC-12.B2.1.11
Mustaque, Muhamed	A	IAC-12.E7.4.9
Muta, Azusa	CA	IAC-12.C2.2.10
Mutchler, Max	CA	IAC-12.E1.8.5
Muñoz, Jessica Tatiana	CA	IAC-12.E1.2.6
Myasnikov, Maxim	CA	IAC-12.A2.6.6
Myers, Jerry	CA	IAC-12.A2.7.4
Myres, Susan	A	IAC-12.E7.7-B3.8.14
Müller, Dominik	CA	IAC-12.A1.8.5
Müntinga, Hauke	A	IAC-12.A2.1.9

N

Name	Role	Paper
N V, Vignesam	CA	IAC-12.C1.2.3
N. Toosi, Hamid	CA	IAC-12.D1.1.13
Na, Hyungho	CA	IAC-12.D1.4.3
Na, Kyung-Su	CA	IAC-12.C2.1.5
Na, Zhou	CA	IAC-12.B2.4.12
naga manjusha, Jammula	CA	IAC-12.C1.9.11
Nagai, Seiji	CA	IAC-12.B2.4.4
Nagano, Hiroshi	A	IAC-12.C4.4.26
Nagasaka, Yuji	CA	IAC-12.C2.9.8
Nagasaki, Yoh	A	IAC-12.C2.4.20
Nagata, Harunori	A	IAC-12.C4.9.5
Nagata, Yasunori	CA	IAC-12.D2.3.3
Nahvi, Ali	CA	IAC-12.D1.1.13
Nakabo, Yoshihiro	CA	IAC-12.D1.3.2
Nakajima, Masakatsu	A	IAC-12.B1.2.3
Nakajima, Yuta	CA	IAC-12.C1.3.10
Nakajima, Yuta	A	IAC-12.C1.9.3
Nakamiya, Masaki	A	IAC-12.C1.4.4
Nakamura, Masato	A	IAC-12.A3.5.3
Nakamura, Ryoko	A	IAC-12.C3.1.8
Nakamura, Tai	CA	IAC-12.B3.1.2
Nakamura, Takashi	CA	IAC-12.D2.1.9
Nakamura, Takashi	CA	IAC-12.D2.1.10
Nakamura, Taketsune	CA	IAC-12.C2.4.20
Nakamura, Yosuke	CA	IAC-12.C1.3.10
Nakamura, Yosuke	CA	IAC-12.B4.6A.2
Nakamura, Yosuke	CA	IAC-12.E6.2.6
Nakamura, Yosuke	CA	IAC-12.C1.9.3
Nakanishi, Hiroki	CA	IAC-12.A6.7.8
Nakano, Masatoshi	CA	IAC-12.E7.2.11
Nakano, Tamotsu	A	IAC-12.E1.2.10
Nakanoya, Sogo	A	IAC-12.B3.2.6
Nakasuka, Shinichi	CA	IAC-12.C1.1.4
Nakasuka, Shinichi	CA	IAC-12.C3.1.6
Nakasuka, Shinichi	CA	IAC-12.B4.3.4
Nakasuka, Shinichi	CA	IAC-12.D1.3.2
Nakasuka, Shinichi	CA	IAC-12.B4.4.5
Nakasuka, Shinichi	CA	IAC-12.C1.3.13
Nakawatase, Ryuji	A	IAC-12.C4.5.7
Nakazawa, Satoru	CA	IAC-12.A3.4.5
Nambu, Yohsuke	A	IAC-12.C2.3.10
Nambu, Yohsuke	CA	IAC-12.C2.5.5
Nandakuma, Karthikeyan	CA	IAC-12.C4.4.5
Nanduri, Pavan Kumar	CA	IAC-12.B2.1.5
Nania, Francesco	CA	IAC-12.C4.4.22
Nania, Francesco	CA	IAC-12.C4.4.23
Nania, Francesco	CA	IAC-12.C4.4.24
Nania, Francesco	CA	IAC-12.C4.4.25
Nania, Francesco	CA	IAC-12.C4.4.27
Nardone, Franco	CA	IAC-12.A6.2.11
Narmada, Xxx	CA	IAC-12.D2.9-D6.2.4
Naruo, Yoshihiro	CA	IAC-12.C4.1.8
Nasuti, Francesco	CA	IAC-12.C4.2.9
Nasuti, Francesco	CA	IAC-12.C4.6.9
Natori, M.C.	A	IAC-12.C2.2.9
Natori, M.C.	CA	IAC-12.C2.3.11
Navabi, M.	A	IAC-12.A6.4.11
Navaneethan, Mansu	A	IAC-12.B3.7.12
Nayak, C Gurudas	CA	IAC-12.D2.3.6
Nayak, Chandrakanth	CA	IAC-12.B6.3.11
Naz, Nausheen	CA	IAC-12.C2.1.3
Nazario, Margaret L.	CA	IAC-12.C4.4.2
Neagu, Ion	CA	IAC-12.C4.6.12
Nebula, Francesco	CA	IAC-12.D2.6.9
Nebula, Francesco	CA	IAC-12.C1.9.5
Nedelkopoulou, Antonia	A	IAC-12.E7.1.2
Neerincx, Mark	CA	IAC-12.A1.1.23
Negishi, So	CA	IAC-12.E5.4.5
Negri, Andrea	CA	IAC-12.C3.4.1
Nehrenz, Matthew	CA	IAC-12.B4.8.1
Nenarokomov, Aleksey V.	CA	IAC-12.C2.7.3
Nepomnyashchy, Alexander	CA	IAC-12.A2.4.5

Nerchenko, Valentina	CA	IAC-12.A2.2.4
Nerchenko, Valentina	CA	IAC-12.A2.2.13
Neri, Emanuele	CA	IAC-12.B1.1.1
Neri, Emanuele	CA	IAC-12.B1.2.2
Neri, Gianluca	A	IAC-12.B3.3.9
Nerovnyy, Nikolay	CA	IAC-12.B3.3.10
Neumayer, Hans	CA	IAC-12.B4.2.1
Newby, Terence	CA	IAC-12.B1.1.10
Newby, Terence	CA	IAC-12.E1.5.12
Newman, Dava	CA	IAC-12.A1.6.6
Newman, Dava	CA	IAC-12.A1.6.7
Newman, Dava	CA	IAC-12.A1.6.8
Nguyen-Thi, Henri	A	IAC-12.A2.3.6
Ni, Wei-Tou	CA	IAC-12.A2.1.14
Nichele, Fabio	A	IAC-12.D1.4.11
Nicholls, Gillian	CA	IAC-12.E1.3.4
Nicodemos, Fernando	CA	IAC-12.D1.3.12
Nicol, Christopher	CA	IAC-12.A3.3A.17
Nicolai, Anja	CA	IAC-12.B3.3.12
Nicolau, Eduardo	CA	IAC-12.A2.3.16
Nicolau, Eduardo	A	IAC-12.A1.6.16
Nicolini, Davide	A	IAC-12.D2.2.2
Nie, Jingjing	A	IAC-12.E7.3.5
Nield, George	A	IAC-12.D6.1.3
Niezette, Marc	A	IAC-12.B1.4.4
Niezette, Marc	A	IAC-12.B6.2.16
Nikitin, Valeriy	CA	IAC-12.A2.2.4
Nikitin, Valeriy	CA	IAC-12.A2.2.13
Ning, Xin	A	IAC-12.D3.1.9
Ninomiya, Keiken	CA	IAC-12.E8.1.1
Nishida, Shin-ichiro	A	IAC-12.A3.2D.28
Nishimura, Naoki	CA	IAC-12.A1.2.5
Nishino, Koichi	CA	IAC-12.A2.7.7
Nishiyama, Kazutaka	CA	IAC-12.C4.4.10
Nitta, Kumi	CA	IAC-12.A6.7.10
Niu, Aimin	CA	IAC-12.E3.2.8
Niu, Aimin	A	IAC-12.A2.5.11
Niu, Kenichi	CA	IAC-12.C4.1.8
Niu, Lu	CA	IAC-12.C4.6.4
Niwa, Mário	CA	IAC-12.D6.1.1
Nock, Kerry	A	IAC-12.A6.5.14
Noda, Atsushi	CA	IAC-12.D1.4.10
Noda, Atsushi	CA	IAC-12.C4.6.8
Nogawa, Yuichiro	A	IAC-12.C4.6.3
Nogawa, Yuichiro	A	IAC-12.B3.7.6
Noguchi, Soichi	A	IAC-12.B3.5.1
Noguchi, Soichi	A	IAC-12.B3.5.3
Noguero Galilea, Javier	CA	IAC-12.B1.6.5
Nohara, Masahiro	CA	IAC-12.C4.9.5
Nomen, Jaume	CA	IAC-12.A6.1.15
Nonaka, Satoshi	CA	IAC-12.D2.3.9
Nonaka, Satoshi	CA	IAC-12.D2.5.5
Nonaka, Satoshi	CA	IAC-12.C4.6.1
Nooij, Suzanne	CA	IAC-12.A1.8.13
Noomen, Ron	CA	IAC-12.A3.2B.8
Noorma, Mart	CA	IAC-12.B4.5.12
Noorma, Mart	CA	IAC-12.C3.4.5
Noroozi, Arash	CA	IAC-12.B2.6.10
Notarangelo, Angelo	CA	IAC-12.A1.7.7
Notarantonio, Anna	CA	IAC-12.A6.2.11
Notarantonio, Anna	CA	IAC-12.C1.4.7
Noteborn, Ron	CA	IAC-12.C1.3.1
Novak, Daniel	A	IAC-12.A6.2.3
Novikov, A.V.	A	IAC-12.C1.1.10
Novikov, A.V.	A	IAC-12.E4.1.9
Novikova, Natalia	A	IAC-12.A1.6.11
Nunes, Miguel	CA	IAC-12.A3.2C.7
Nunes Pereira, Acacio	CA	IAC-12.A1.7.8
Nusbaum, Derek	A	IAC-12.A1.8.4
Nutal, Nicolas	CA	IAC-12.C2.8.5
Nwagwu, John	CA	IAC-12.B5.2.1
Nwosa, Chijioke (CJ)	A	IAC-12.A6.2.13
Nwosa, Chijioke (CJ)	CA	IAC-12.A6.5.28
Nwosa, Chijioke (CJ)	CA	IAC-12.A6.6.1
Nyampong, Yaw	CA	IAC-12.A6.6.6
Nyawade, Andrew	A	IAC-12.E3.4.2
Nye, Bill	CA	IAC-12.A1.5.5

O

Name	Role	Paper
O'Donnell, Steve	CA	IAC-12.B4.6A.5
O'Donnell, Steve	CA	IAC-12.B2.6.7
O'Griofa, Marc	CA	IAC-12.A1.1.9
O'Griofa, Marc	CA	IAC-12.E5.2.7
Obara, Takahiro	A	IAC-12.D5.3.3
Obenaus, Andre	CA	IAC-12.A1.3.13
Oberg, Johnny	CA	IAC-12.A2.3.15
Oberst, Jürgen	A	IAC-12.A3.4.10
Obiols-Rabasa, Gerard	CA	IAC-12.B4.6B.6
Obousy, Richard	A	IAC-12.D4.1.5
Obukhov, Vladimir	A	IAC-12.C4.4.3
Ocampo-Torres, Francisco J.	CA	IAC-12.B1.2.11
Ochiai, Mika	A	IAC-12.E3.2.8
Ochiai, Mika	CA	IAC-12.A2.5.11
Ochoa, Carlos	CA	IAC-12.B1.4.13
Oda, Mitsushige	A	IAC-12.C1.8.5
Oettershagen, Philipp	A	IAC-12.D3.3.5
Oezdemir, Kagan	CA	IAC-12.B6.3.2
Offiong, Etim	CA	IAC-12.E1.4.9
Offiong, Etim	A	IAC-12.A2.5.10
Ogar, Mabel Ungie-Ada	CA	IAC-12.B1.6.6
Ogasawara, Ko	CA	IAC-12.A5.4.9
Ogawa, Hiroyuki	CA	IAC-12.D2.5.5
Ogawa, Keita	CA	IAC-12.C1.3.10
Ogawa, Shiho	CA	IAC-12.E1.2.10
Ogawa, Toshiaki	CA	IAC-12.D1.4.8
Ogilvie, Andrew	CA	IAC-12.D3.3.2
Ogorzalek, Bernard	CA	IAC-12.B5.2.4
Ogun, Funmilayo	A	IAC-12.C4.3.13
Ogunmola, Kehinde	CA	IAC-12.B1.5.4
Ogunshile, Emmanuel	A	IAC-12.D1.6.1
Oh, Daesoo	A	IAC-12.B4.6A.12
Oha, Kristel	A	IAC-12.A1.2.24
Ohkawa, Yasushi	CA	IAC-12.C4.9.6
Ohkawa, Yasushi	A	IAC-12.C4.4.11
Ohkawa, Yasushi	CA	IAC-12.A6.7.8
Ohkawa, Yasushi	CA	IAC-12.A6.7.10
Ohki, Masato	CA	IAC-12.E1.2.4
Ohkubo, Shinya	CA	IAC-12.D2.1.9
Ohkubo, Shinya	CA	IAC-12.D2.1.10
Ohkuma, Hayato	CA	IAC-12.A2.5.2
Ohmichi, Wataru	A	IAC-12.C4.4.14
Ohndorf, Andreas	CA	IAC-12.B6.2.9
Ohnishi, Mitsuru	CA	IAC-12.A2.7.7
Ohoto-Fujita, Eri	CA	IAC-12.A1.3.3
Ohtani, Sho	A	IAC-12.E5.1.9
Ohtani, Takashi	CA	IAC-12.C1.3.10
Ohtani, Takashi	A	IAC-12.B4.6A.2
Ohtani, Takashi	CA	IAC-12.C1.9.3
Ohya, Kento	CA	IAC-12.E2.3.8
Ohyama, Sho	CA	IAC-12.C4.2.26
Oishi, Atsushi	CA	IAC-12.D1.6.8
Oishi, Tsuyoshi	CA	IAC-12.D1.4.8
Ojo, Adebayo	A	IAC-12.E1.5.13
Oka, Noriaki	A	IAC-12.B4.6A.3
Okada, Tatsuaki	CA	IAC-12.A3.4.7
Okamoto, Chisato	CA	IAC-12.A3.4.6
Okamoto, Chisato	CA	IAC-12.A3.4.8
Okamoto, Eiji	CA	IAC-12.B2.2.8
Okazaki, Ryuji	CA	IAC-12.A3.4.6
Okita, Koichi	CA	IAC-12.D2.1.9
Okita, Koichi	CA	IAC-12.D2.1.10
Okudaira, Osamu	CA	IAC-12.D5.3.10
Okuizumi, Nobukatsu	CA	IAC-12.C2.2.9
Okuizumi, Nobukatsu	CA	IAC-12.C2.2.10

Olabamiji, Olojo	A	IAC-12.B1.6.6
Olabamiji, Olojo	CA	IAC-12.B5.2.1
Olakunle, Oladosu	A	IAC-12.E1.4.9
Olayanju, Gbenga Moses	CA	IAC-12.D5.3.7
Olberts, Bastian	A	IAC-12.D1.1.9
Olberts, Bastian	A	IAC-12.E1.6.8
Oldenhuis, Rody	CA	IAC-12.B3.3.12
Oleson, Steven	CA	IAC-12.D3.1.3
Oliden Martinez, Jose	CA	IAC-12.B4.6B.4
Oliveira, André	CA	IAC-12.A3.2C.10
Oliver, Carol	CA	IAC-12.E1.7.3
Olivier, Scot	CA	IAC-12.A6.2.14
Olivier, Scot	CA	IAC-12.A6.5.11
Olivieri, Lorenzo	A	IAC-12.D1.2.8
Olle, Merce	CA	IAC-12.C1.6.9
Ollongren, Alexander	A	IAC-12.A4.1.10
Olmedo, Estrella	A	IAC-12.A6.1.15
Olsen, Kevin	CA	IAC-12.A3.3A.17
Olson, Thomas	A	IAC-12.E6.2.5
Olthof, Hein	A	IAC-12.C4.2.28
Omaly, Pierre	CA	IAC-12.A3.3B.6
Onishi, Shunsuke	CA	IAC-12.B4.6B.2
Ono, Ayako	A	IAC-12.A1.1.13
Ono, Ayako	CA	IAC-12.A5.1.2
Ono, Ayako	CA	IAC-12.A5.3-B3.6.2
Ono, Ayako	CA	IAC-12.D4.4.2
Ono, Ayako	A	IAC-12.E5.4.5
Ono, Ayako	CA	IAC-12.E5.5A.3
Onofri, Marcello	CA	IAC-12.C4.6.9
Onuki, Misuzu	A	IAC-12.E6.4-D4.2.8
Onuki, Misuzu	A	IAC-12.E6.1.10
Onuki, Misuzu	A	IAC-12.E6.3.4
Oprong, Angeline Asangire	A	IAC-12.E7.1.14
Orgel, Csilla	A	IAC-12.A5.2.6
Orikasa, Teruaki	A	IAC-12.B2.2.6
Orlandi, Olivier	CA	IAC-12.C4.2.7
Orlandini, Andrea	CA	IAC-12.D5.2.11
Orlandini, Andrea	CA	IAC-12.B5.2.10
Orosei, Roberto	CA	IAC-12.A3.5.8
Orr, Nathan	A	IAC-12.C3.4.11
Orru', Roberto	CA	IAC-12.D3.3.9
Orszulik, Ryan	A	IAC-12.C2.5.3
Ortega, Guillermo	CA	IAC-12.D1.3.8
Ortega-Miguez, Carlos	A	IAC-12.D1.3.3
Ortore, Emiliano	CA	IAC-12.B1.4.8
Osazuwa, Toyin	CA	IAC-12.B1.6.6
Osborne, Jeffrey R.	A	IAC-12.E3.1.4
Osborne, Jeffrey R.	A	IAC-12.A1.2.15
Osborne, Jeffrey R.	CA	IAC-12.B1.5.8
Osheku, Charles	CA	IAC-12.C4.3.13
Oshinowo, Layi	A	IAC-12.D3.3.2
Osinski, Gordon	CA	IAC-12.A3.3B.5
Osinski, Gordon	CA	IAC-12.A5.3-B3.6.3
Osinski, Gordon	CA	IAC-12.A3.2C.2
Osinski, Gordon	CA	IAC-12.A3.2C.5
Osinski, Gordon	CA	IAC-12.B3.7.8
Ospina, Sylvia	A	IAC-12.E3.4.8
Ostlaender, Nicole	CA	IAC-12.B1.5.13
Ostoja Starzewski, Stanislaw	A	IAC-12.B4.5.6
Osuga, Hiroyuki	CA	IAC-12.C4.4.26
Oswald, Michael	CA	IAC-12.A6.2.8
Oswald, Michael	CA	IAC-12.A6.3.2
Oswald, Michael	CA	IAC-12.A6.4.4
Oswald, Michael	CA	IAC-12.B1.6.3
Otto, Gudino	A	IAC-12.E7.6-E3.5.1
Oungrinis, Konstantinos-Alketas	A	IAC-12.A1.1.14
Ouyang, Ziyuan	CA	IAC-12.A3.2A.6
Ouyang, Ziyuan	CA	IAC-12.A3.2D.17
Ovchinnikov, Michael Yu.	A	IAC-12.C1.9.12
Owens, Alan	CA	IAC-12.D1.2.12
Owens, Amanda	A	IAC-12.E6.2.2
Owens, Steven	A	IAC-12.C1.5.5
Ower, Cameron	A	IAC-12.B3.4-B6.5.6
Ower, Cameron	A	IAC-12.A5.3-B3.6.4
Owolabi, Temitope	A	IAC-12.D5.3.7
Owoyomi, Olanrewaju	CA	IAC-12.A2.5.10
Oyama, Akira	CA	IAC-12.C1.4.4
Oyama, Daniel	A	IAC-12.A3.2D.32
Oyekan, Adebayo	CA	IAC-12.A1.4.8
Ozdemir, Kursad	A	IAC-12.E5.3.2
Ozerov, Alexey	CA	IAC-12.D2.2.11
Oštir, Krištof	A	IAC-12.E1.2.8
Oštir, Krištof	A	IAC-12.B1.5.7

P

Name	Role	Paper
P, Veeramuthuvel	CA	IAC-12.B4.6A.4
P J, Abraham	CA	IAC-12.C2.1.12
P J, Abraham	CA	IAC-12.C4.2.15
P J, Abraham	CA	IAC-12.C2.7.10
P. V., Arun	CA	IAC-12.E2.3.9
Pace, Scott	A	IAC-12.E3.2.7
Paces, Pavel	CA	IAC-12.B1.4.12
Pacheco, Enrique	CA	IAC-12.B1.2.11
Pacios Martínez, Jorge	CA	IAC-12.B1.6.5
Padalko, Sergei	A	IAC-12.A1.6.14
Padgett-Vasquez, Steve	CA	IAC-12.B1.5.9
Pagkratis, Spyros	A	IAC-12.E3.3.11
Paita, Luca	A	IAC-12.C4.4.7
Paita, Luca	A	IAC-12.C4.4.22
Paita, Luca	A	IAC-12.C4.4.23
Paita, Luca	A	IAC-12.C4.4.24
Paita, Luca	A	IAC-12.C4.4.25
Paita, Luca	A	IAC-12.C4.4.27
Pajas, Miriam	CA	IAC-12.A3.5.15
Pajdla, Tomas	CA	IAC-12.A3.3A.12
Pajusalu, Mihkel	A	IAC-12.C3.4.5
Pakakis, Michael	CA	IAC-12.E1.1.5
Paladini, Edoardo	CA	IAC-12.E2.2.5
Palecka, Jan	CA	IAC-12.A2.3.2
Palerm, Sandrine	CA	IAC-12.C4.3.1
Palkovitz, Neta	A	IAC-12.E7.5.8
Pallares, Jordi	CA	IAC-12.A2.2.8
Pallares, Jordi	CA	IAC-12.A2.6.1
Pallaschke, Siegmar	A	IAC-12.D5.2.3
Pallaschke, Siegmar	CA	IAC-12.D5.2.4
Pallaschke, Siegmar	CA	IAC-12.D5.2.10
Palmer, David	CA	IAC-12.A6.1.21
Palmer, Phil	CA	IAC-12.B4.6A.8
Palmerini, Giovanni B.	CA	IAC-12.C2.2.3
Palmerini, Giovanni B.	CA	IAC-12.C2.2.8
Palmerini, Giovanni B.	A	IAC-12.C2.2.11
Palmerini, Giovanni B.	CA	IAC-12.C1.8.11
Palmese, Gianfranco	CA	IAC-12.B1.3.8
Paloski, William H.	CA	IAC-12.A1.2.5
Palumberi, Sergio	CA	IAC-12.D5.2.7
Palumbo, Roberto	CA	IAC-12.D2.4.15
Palumbo, Roberto	CA	IAC-12.D2.6.9
Paluszek, Michael	A	IAC-12.C4.7-C3.5.10
Pan, Sha	CA	IAC-12.C2.8.13
Pan, Yi	CA	IAC-12.B2.3.11
Pande, Seetesh	A	IAC-12.B2.1.5
Pande, Seetesh	CA	IAC-12.D4.1.7
Pande, Seetesh	CA	IAC-12.A3.3A.13
Pande, Seetesh	CA	IAC-12.A1.4.19
Pande, Seetesh	CA	IAC-12.D2.5.9
Pande, Seetesh	CA	IAC-12.A3.5.13
Pande, Seetesh	CA	IAC-12.C2.7.9
Pande, Seetesh	CA	IAC-12.C2.7.11
Pande, Seetesh	CA	IAC-12.A5.4.13
Pandov, Evgeny	A	IAC-12.E5.1.16
Panerai, Francesco	CA	IAC-12.C2.9.9
Pang, Baojun	CA	IAC-12.A6.3.11
Panichkin, Nikolai	CA	IAC-12.D2.4.12
Panighini, Marco	CA	IAC-12.D2.6.14
Panighini, Marco	CA	IAC-12.B6.2.4

Panissi, Denio Lemos	CA	IAC-12.C2.7.7
Pankhania, Jagruti	CA	IAC-12.A1.2.12
Pannetier, Benjamin	CA	IAC-12.A6.1.13
Pantanella, Giuseppe	CA	IAC-12.C2.1.2
Panza, Gianfranco	CA	IAC-12.A3.2D.10
Paolozzi, Antonio	CA	IAC-12.B4.2.1
Paolozzi, Antonio	A	IAC-12.C2.1.17
Paolozzi, Antonio	A	IAC-12.C2.4.16
Paolozzi, Antonio	A	IAC-12.C2.6.5
Paolozzi, Antonio	A	IAC-12.B4.5.11
Paolozzi, Antonio	A	IAC-12.C2.9.5
Papa, Claudio	CA	IAC-12.B1.3.8
Paradiso, Nunzia Maria	A	IAC-12.B1.6.1
Paradiso, Roberta	CA	IAC-12.A3.2D.36
Paradiso, Roberta	CA	IAC-12.A1.6.3
Parco, María	CA	IAC-12.D1.2.9
Pardini, Carmen	CA	IAC-12.A6.4.9
Pardini, Carmen	CA	IAC-12.A6.5.8
Paris, Claudio	CA	IAC-12.B4.2.1
Paris, Claudio	CA	IAC-12.C2.1.17
Paris, Claudio	CA	IAC-12.C2.6.5
Park, Eun Soo	CA	IAC-12.A5.1.4
Park, Ji Hyun	A	IAC-12.A3.2A.8
Park, Jong-Sung	CA	IAC-12.C2.1.5
Park, Sangin	CA	IAC-12.B4.6A.6
Park, SungOk	CA	IAC-12.B4.6A.12
Park, Woosung	A	IAC-12.B2.6.8
Parkes, Steve	CA	IAC-12.C1.3.8
Parlett, Amy	A	IAC-12.E4.2.5
Parrot, Pierre	A	IAC-12.E3.3.1
Parsa, Aram	A	IAC-12.A2.6.3
Pasco, Xavier	CA	IAC-12.E3.4.11
Pasini, Angelo	CA	IAC-12.C4.3.5
Pasquariello, Diana	CA	IAC-12.E1.7.11
Passaro, Andrea	CA	IAC-12.C4.4.24
Passeggio, Francesco	CA	IAC-12.C2.9.5
Passoni, Vanessa	A	IAC-12.E7.4.6
Passos, Júlio César	CA	IAC-12.A2.2.7
Pastena, Massimiliano	CA	IAC-12.B4.6B.7
Pastrone, Dario	CA	IAC-12.C4.2.9
Patamia, Steven	CA	IAC-12.D4.3.7
Patel, Pritam	CA	IAC-12.A5.1.5
Patel Nagaraja, Mamta	A	IAC-12.B6.4.4
Paterson, Carrie	CA	IAC-12.E5.3.10
Pathan, Azizkhan	CA	IAC-12.C4.5.6
Patrick, Castillan	A	IAC-12.B1.1.3
Paul, Abhishek	CA	IAC-12.E2.3.6
Paul, Michael	CA	IAC-12.B4.8.5
Paulino, Nuno	CA	IAC-12.C1.9.5
Paulo, Cláudio Machado	CA	IAC-12.B1.3.12
Paulsen, Katrin	CA	IAC-12.A1.7.5
Pavarin, Daniele	CA	IAC-12.A6.5.8
Pavlis, Erricos	CA	IAC-12.B4.2.1
Pavone, Rosario	CA	IAC-12.E3.1.6
Paxton, Larry	A	IAC-12.B5.2.4
Payson, Dmitry	A	IAC-12.E6.3.8
Pearson, Jerome	A	IAC-12.A6.6.7
Pedersen, Borre	A	IAC-12.B1.6.10
Pedersen, David A.K.	CA	IAC-12.D1.6.3
Pedrazzani, Donata	CA	IAC-12.B1.6.5
Pedrini, Alberto	CA	IAC-12.A3.3B.8
Peeters, Walter	CA	IAC-12.E1.4.1
Pehani, Peter	CA	IAC-12.B1.5.7
Pelakauskas, Martynas	CA	IAC-12.C3.4.5
Peldszus, Regina	A	IAC-12.E5.2.12
Pell, Sarah Jane	CA	IAC-12.E5.5A.6
Pelle, Stewart	CA	IAC-12.D3.1.2
Pellegrini, Alessandro	CA	IAC-12.A1.2.1
Pellegrini, Rocco C.	CA	IAC-12.C2.4.1
Pellon-Bailon, Jose-Luis	CA	IAC-12.A3.4.1
Peluso, Fabio	A	IAC-12.A2.4.3
Pendaries, Michel	CA	IAC-12.B1.3.1
Pendaries, Michel	CA	IAC-12.C1.8.8
Peng, Xiaohui	A	IAC-12.C4.3.14
Peng, Xu	CA	IAC-12.C3.3.14
Penny, Robert E	A	IAC-12.D4.3.4
Penta, Massimo	CA	IAC-12.A1.8.2
Percy, Thomas	A	IAC-12.A6.6.3
Pereira, Carlos	CA	IAC-12.C2.1.10
Pereira, Carlos	A	IAC-12.D2.6.3
Perek, Lubos	A	IAC-12.E7.5.12
Perelli, Massimo	CA	IAC-12.C3.4.1
Perero, Sergio	CA	IAC-12.A1.6.19
Perero, Sergio	CA	IAC-12.A1.8.10
Perez, Rodrigo	A	IAC-12.A1.5.3
Perez Montenegro, Carlos	CA	IAC-12.A3.2D.35
Perez-Poch, Antoni	CA	IAC-12.A1.2.15
Pergola, Pierpaolo	CA	IAC-12.D2.3.12
Pergola, Pierpaolo	CA	IAC-12.C1.5.11
Pergola, Pierpaolo	A	IAC-12.D1.4.7
Pergola, Pierpaolo	CA	IAC-12.A5.4.5
Pergola, Pierpaolo	CA	IAC-12.A1.8.15
Perino, Maria Antonietta	A	IAC-12.D3.1.2
Perino, Maria Antonietta	CA	IAC-12.B3.3.8
Perino, Maria Antonietta	A	IAC-12.D3.2.1
Perino, Maria Antonietta	CA	IAC-12.B4.8.3
Perkowski, Witold	CA	IAC-12.C4.8.3
Perozzi, Ettore	CA	IAC-12.A3.4.17
Perren, Matthew	CA	IAC-12.D2.2.1
Perret, Lionel	A	IAC-12.B1.3.1
Perret, Lionel	CA	IAC-12.C1.8.8
Perrotta, Luigi	CA	IAC-12.B2.6.6
Persad, Aaron	A	IAC-12.A2.4.1
Pertica, Alexander	CA	IAC-12.A6.2.14
Pertica, Alexander	CA	IAC-12.A6.5.11
Pertile, Marco	CA	IAC-12.C2.2.6
Perut, Christian	CA	IAC-12.C4.9.8
Peter, Szanto	CA	IAC-12.A1.4.16
Peters, Achim	CA	IAC-12.A2.1.5
Peters, Achim	CA	IAC-12.A2.1.6
Peters, Achim	CA	IAC-12.A2.1.8
Peters, Achim	CA	IAC-12.A2.1.13
Peterson, Glenn	CA	IAC-12.D1.1.8
Petit, Antoine	CA	IAC-12.A6.5.9
Petkow, Dejan	CA	IAC-12.C4.7-C3.5.6
Petrelli, Patrizia	CA	IAC-12.D2.5.4
Petrenko, Olexandr	CA	IAC-12.D3.1.10
Petroni, Giorgio	CA	IAC-12.E5.1.2
Petrosino, Francesco	CA	IAC-12.D1.3.6
Petrosino, Francesco	A	IAC-12.D2.3.7
Petrosino, Francesco	CA	IAC-12.A3.3A.19
Petrosino, Francesco	CA	IAC-12.A3.5.14
Petrov, Andrey	CA	IAC-12.D2.5.7
Petrov, Nikolay	CA	IAC-12.B3.2.7
Petrov, Oleg	A	IAC-12.A2.6.6
Petrov, Oleg	CA	IAC-12.A2.7.6
Petrov, Vladislav	CA	IAC-12.A1.4.17
Petrov, Vladislav M.	CA	IAC-12.B3.5.7
Petukhov, Viacheslav	CA	IAC-12.C4.4.3
Petukhov, Vjacheslav	CA	IAC-12.A3.5.5
Peyrou-Lauga, Romain	CA	IAC-12.C2.8.5
Pezzella, Giuseppe	CA	IAC-12.D1.3.6
Pezzella, Giuseppe	A	IAC-12.D2.3.4
Pezzella, Giuseppe	CA	IAC-12.D2.3.7
Pezzella, Giuseppe	CA	IAC-12.A3.3A.19
Pezzella, Giuseppe	A	IAC-12.D2.6.13
Pezzella, Giuseppe	A	IAC-12.A3.5.14
Pezzuti, Francesco	CA	IAC-12.A2.4.3
Philippe, Christian	CA	IAC-12.A3.2B.4
Phillips, Melanie	A	IAC-12.B1.5.6
Phylippov, Yuriy	CA	IAC-12.A2.2.13
Piattoni, Jacopo	CA	IAC-12.D1.1.12
Piattoni, Jacopo	A	IAC-12.C4.6.9
Piattoni, Jacopo	CA	IAC-12.E1.9.9
Pica, Giulia	CA	IAC-12.B1.3.10
Picard, Martin	CA	IAC-12.A3.3B.5
Picard, Martin	CA	IAC-12.A3.2C.2
Picard, Martin	CA	IAC-12.A3.2C.4
Piccolo, Chiara	A	IAC-12.A2.5.9
Piccolo, Chiara	CA	IAC-12.B6.1.5
Piccolo, Fabio	CA	IAC-12.A2.7.9
Pichard, Thierry	CA	IAC-12.D6.1.6
Piche, Louis	CA	IAC-12.A1.3.13
Pichkhadze, Konstantin M.	CA	IAC-12.A3.1.11
Pichkhadze, Konstantin M.	A	IAC-12.D4.4.7
Pichon, Thierry	A	IAC-12.D2.6.4
Pickens, Tim	CA	IAC-12.A3.2B.2
Pickersgill, Annemarie	CA	IAC-12.A5.3-B3.6.3
Piedboeuf, Jean-Claude	CA	IAC-12.B3.1.9
Piergentili, Fabrizio	CA	IAC-12.A6.1.3
Piergentili, Fabrizio	CA	IAC-12.A6.1.12
Piergentili, Fabrizio	CA	IAC-12.D1.1.12
Piergentili, Fabrizio	CA	IAC-12.A6.5.22
Piergentili, Fabrizio	CA	IAC-12.A3.4.17
Piergentili, Fabrizio	CA	IAC-12.C4.6.9
Piergentili, Fabrizio	CA	IAC-12.C3.4.1
Piergentili, Fabrizio	CA	IAC-12.E1.9.9
Pierluigi, Perugini	CA	IAC-12.C4.9.4
Pierson, Roger	CA	IAC-12.A1.3.13
Pietras, Markus	A	IAC-12.A6.5.7
Pietras, Markus	A	IAC-12.E1.3.10
Pietropaoli, Elisa	CA	IAC-12.A3.3C.5
Pignataro, Salvatore	CA	IAC-12.B3.1.7
Pignataro, Salvatore	CA	IAC-12.B3.4-B6.5.9
Pignataro, Salvatore	A	IAC-12.A2.7.1
Pignataro, Salvatore	CA	IAC-12.A2.7.3
Pignataro, Salvatore	CA	IAC-12.A2.7.9
Pignataro, Salvatore	A	IAC-12.B1.5.13
Pignataro, Salvatore	A	IAC-12.A1.7.1
Pignolet, Guy	CA	IAC-12.E1.9.1
Pignède, Max	CA	IAC-12.YPVF.1.5
Pilchen, Guy	CA	IAC-12.D2.4.3
Pilchen, Guy	A	IAC-12.D2.5.2
Pilger, Eric	CA	IAC-12.A3.2C.7
Pillet, Nicolas	CA	IAC-12.E1.9.1
Pimenta, Alexandre Alvares	A	IAC-12.B4.2.8
Pimenta, Alexandre Alvares	CA	IAC-12.B4.1.5
Pin, Olivier	CA	IAC-12.C2.8.5
Pinchuk, Rani	CA	IAC-12.D5.2.11
Pinchuk, Rani	CA	IAC-12.E1.7.11
Pineda, David	CA	IAC-12.E1.2.6
Pingping, Lou	CA	IAC-12.C3.3.14
Pinni, Martina	A	IAC-12.B6.3.5
Pinni, Martina	CA	IAC-12.B6.3.6
Piperno, Osvaldo	CA	IAC-12.E3.1.6
Piras, Annamaria	A	IAC-12.B3.4-B6.5.4
Piratque, Marco Antonio	CA	IAC-12.E1.2.6
Pirondini, Fabrizio	CA	IAC-12.C1.4.9
Pirrotta, Simone	CA	IAC-12.A3.1.9
Pirrotta, Simone	CA	IAC-12.C2.1.13
Pirrotta, Simone	A	IAC-12.A3.5.16
Pisculli, Andrea	CA	IAC-12.C2.2.8
Pisseloup, Aurelien	A	IAC-12.A3.3A.20
Pisu, Massimo	CA	IAC-12.D3.3.9
Pittman, Robert	A	IAC-12.D3.2.4
Pitts, Marina	A	IAC-12.E1.1.2
Pizarro-Chong, Ary	A	IAC-12.C4.7-C3.5.11
Plagnard, Marc	CA	IAC-12.B1.1.4
Planes, Jean-Guy	CA	IAC-12.B1.2.12
Plattner, Markus	CA	IAC-12.C2.5.9
Platzer, Peter	CA	IAC-12.D4.4.6
Platzer, Peter	A	IAC-12.E6.2.7
Plecki, Marge	CA	IAC-12.E1.2.11
Plescher, Engelbert	CA	IAC-12.A3.5.7
Pletser, Vladimir	CA	IAC-12.A2.7.8
Pletser, Vladimir	A	IAC-12.A1.8.2
Pluchino, Salvatore	CA	IAC-12.A4.1.5
Pluchino, Salvatore	A	IAC-12.A4.1.6
Poddubko, Svetlana	CA	IAC-12.A1.8.10
Podhajsky, Sandra	A	IAC-12.A3.2C.11
Poetro, Ridanto Eko	CA	IAC-12.E2.2.6
Pogosyan, Dina	CA	IAC-12.E6.4-D4.2.4
Poincheval, Catherine	A	IAC-12.D2.1.6
Poleacovschi, Cristina	A	IAC-12.D1.6.6
Policella, Nicola	CA	IAC-12.B6.2.16
Polit-Casillas, Raul	A	IAC-12.E5.3.4
Polit-Casillas, Raul	A	IAC-12.E5.3.11
Polkko, Jouni	CA	IAC-12.D4.1.4
Polli, Aldo	CA	IAC-12.C4.4.8
Pollio, Gerardo	CA	IAC-12.A2.5.6
Pollio, Gerardo	CA	IAC-12.B4.6A.7
Pollock, Shannon	CA	IAC-12.B4.5.1
Polomini, Andrea	CA	IAC-12.C2.2.8
Poluyan, Nikolay	CA	IAC-12.D2.7.6
Polyakov, Alexey	CA	IAC-12.A1.3.9
Pomerantz, William	CA	IAC-12.D2.9-D6.2.7
Ponce, Octavio	CA	IAC-12.B1.2.11
Poncy, Joel	A	IAC-12.A3.1.7
Poncy, Joel	A	IAC-12.A3.3B.4
Pong, Christopher	CA	IAC-12.B4.2.7
Ponomarenko, Andrey D.	A	IAC-12.D4.4.7
Pont, Gabriel	A	IAC-12.A2.4.2
Pont, Gabriel	A	IAC-12.B3.4-B6.5.8
Pontani, Mauro	A	IAC-12.C1.4.10
Pontani, Mauro	A	IAC-12.C1.7.1
Pontefrac, Alexandra	CA	IAC-12.B3.7.8
Ponti, Fabrizio	CA	IAC-12.C4.2.16
Poos, Wouter	CA	IAC-12.E5.2.7
Poos, Wouter	CA	IAC-12.A1.5.7
Poos, Wouter	CA	IAC-12.A5.3-B3.6.2
Popandreeva, Anelia	CA	IAC-12.E5.1.16
Popov, Garri A.	CA	IAC-12.C4.4.3
Popova, Julia	A	IAC-12.A1.2.14
Popper, Joseph	A	IAC-12.E5.4.10
Porfilio, Manfredi	A	IAC-12.B1.4.2
Porrmann, Dennis	A	IAC-12.C4.2.21
Porrmann, Dennis	CA	IAC-12.C4.2.8
Porta, Roberto	CA	IAC-12.A3.4.1
Portelli, Claudio	CA	IAC-12.A6.2.11
Portigliotti, Stefano	CA	IAC-12.A3.3A.4
Potapov, Alexander	A	IAC-12.D5.3.4
Potapov, Anatoly N.	CA	IAC-12.A1.3.6
Potapov, Dmitry	CA	IAC-12.E7.5.14
Poulakis, Pantelis	CA	IAC-12.B3.3.11
Poventud-Estrada, Carlos	A	IAC-12.A2.3.16
Poynter, Lyndsey	CA	IAC-12.B3.4-B6.5.6
Pozza, Maria	A	IAC-12.E7.1.23
Pradier, Alain	CA	IAC-12.A3.2D.18
Pradier, Alain	CA	IAC-12.A3.2B.4
Prado, Antonio	A	IAC-12.C1.7.12
Prados, Ana	CA	IAC-12.E1.9.5
Prakasha, Anuradha	A	IAC-12.B6.3.11
Prakasha, Anuradha	A	IAC-12.B6.2.10
Praks, Jaan	CA	IAC-12.B4.2.11
Prampolini, Marco	CA	IAC-12.D2.9-D6.2.4
Prasad, M.Y.S.	CA	IAC-12.D2.2.13
Prasad, MYS	CA	IAC-12.A6.1.9
Prasad, MYS	CA	IAC-12.D2.2.14
Prater, Tracie	A	IAC-12.C2.4.7
PREL, Yves	A	IAC-12.D2.5.1
Preston, Louisa	CA	IAC-12.A5.3-B3.6.3
Preston, Louisa	CA	IAC-12.B3.7.8
Preti, Giampaolo	CA	IAC-12.A3.5.16
Pretto, Isacco	CA	IAC-12.C1.2.8
Preu, Peter	A	IAC-12.A2.7.2
Preud'Homme, Frank	CA	IAC-12.B3.7.9
Priami, Leonardo	CA	IAC-12.C4.4.7
Priami, Leonardo	CA	IAC-12.C4.4.22
Priami, Leonardo	CA	IAC-12.C4.4.23
Priami, Leonardo	CA	IAC-12.C4.4.27
Price, Laurence	A	IAC-12.B6.1.9
Prieto-Cerdeira, Roberto	CA	IAC-12.B2.5.8
Prieto-Cerdeira, Roberto	CA	IAC-12.B2.5.15
Prieto-Llanos, Tomas	CA	IAC-12.C1.3.8
Prieto-Llanos, Tomas	CA	IAC-12.A3.4.19
Prince, Jill	A	IAC-12.A3.5.17
Prior, Christopher	CA	IAC-12.B5.2.9
Prioroc, Claudiu-Lucian	CA	IAC-12.E2.3.3
Priyadarshinee, Prachee	A	IAC-12.A6.5.26
Prost, Jean-Pierre	CA	IAC-12.A3.1.7

Prost, Jean-Pierre	CA	IAC-12.A3.3B.4
Protsan, Yulian	A	IAC-12.C4.3.11
Prudhomme, Stephanie	CA	IAC-12.D1.3.1
Pruett, Casey	CA	IAC-12.B3.5.2
Pruett, Casey	A	IAC-12.B3.5.4
Pruneri, Valerio	CA	IAC-12.D1.2.9
Przybilski, Olaf	CA	IAC-12.E4.3B.1
Préaux, Guy	CA	IAC-12.E1.9.1
Pugliese, Mariagabriella	A	IAC-12.A1.4.13
Pugliese, Mariagabriella	CA	IAC-12.A1.4.14
Pugliese, Mariagabriella	CA	IAC-12.A1.4.20
Pulk, David	CA	IAC-12.D2.2.11
Punzo, Giuliano	A	IAC-12.D3.3.7
Purpura, Carlo	A	IAC-12.C2.1.11
Putzar, Robin	CA	IAC-12.A6.3.10
Putzer, Philipp	A	IAC-12.C2.5.9
Pázmándi, Tamás	CA	IAC-12.A1.4.16
Pázmándi, Tamás	CA	IAC-12.C2.7.16
Pérez, Carlos	CA	IAC-12.A3.3C.2
Pérez Fontán, Fernando	CA	IAC-12.B2.5.8
Pérez Fontán, Fernando	CA	IAC-12.B2.5.15

Q

Name	Role	Paper
Qadi, Ala'	A	IAC-12.A3.3A.17
Qi, Rui	A	IAC-12.C1.1.3
Qi, Rui	CA	IAC-12.D3.4.6
Qian, Xiaoping	CA	IAC-12.B2.6.14
Qiao, Dong	A	IAC-12.A3.4.12
QIAO, KUN	CA	IAC-12.C1.1.4
Qin, Yi-Xian	A	IAC-12.A1.2.9
Qing, Wang	A	IAC-12.D2.4.6
Qinglian, Li	CA	IAC-12.C4.6.11
Qu, Yili	CA	IAC-12.A1.7.4
Quadrini, Fabrizio	CA	IAC-12.A2.6.8
Quadrini, Fabrizio	CA	IAC-12.C2.9.12
Quantius, Dominik	A	IAC-12.D1.1.5
Quantius, Dominik	CA	IAC-12.D1.1.6
Quantius, Dominik	A	IAC-12.A1.6.20
Quantius, Dominik	CA	IAC-12.A5.4.8
Quarto, Maria	CA	IAC-12.A1.4.13
Quemin, Thomas	CA	IAC-12.E5.2.7
Quinn, Andy	A	IAC-12.D6.1.2
Quinn, Jacqueline	CA	IAC-12.A3.2C.4
Qureshi, Adil Masoud	A	IAC-12.B2.5.7
Qureshi, Muhammad Hasnain	CA	IAC-12.B2.5.7
Qureshi, Muhammad-Nauman	CA	IAC-12.C2.1.14
Quétard, Pierre	CA	IAC-12.E1.9.1

R

Name	Role	Paper
Rabbia, Silvana	CA	IAC-12.B3.4-B6.5.5
Rabbow, Elke	CA	IAC-12.A1.6.12
Rabiu, Babatunde	CA	IAC-12.D5.3.7
Race, Margaret	CA	IAC-12.E1.4.3
Rachel, Reinhardt	CA	IAC-12.A1.6.10
Rachkin, Dmitry	CA	IAC-12.B3.3.10
Racioppa, Paolo	CA	IAC-12.B2.1.10
Rad, Khosrow	CA	IAC-12.A3.5.12
Radice, Gianmarco	CA	IAC-12.C3.1.9
Radice, Gianmarco	CA	IAC-12.B4.1.6
Radice, Gianmarco	CA	IAC-12.C1.2.4
Radice, Gianmarco	CA	IAC-12.A3.2D.13
Radice, Gianmarco	CA	IAC-12.B4.7B.2
Radziszewski, Peter	CA	IAC-12.A3.2D.32
Radziszewski, Peter	CA	IAC-12.C2.6.4
Raftery, Michael	A	IAC-12.B3.1.10
Ragazzoni, Roberto	CA	IAC-12.A6.1.18
Raghava Murthy, D.V.A.	A	IAC-12.B4.6A.4
Raghavan, Jeenu	CA	IAC-12.C4.2.4
Raghavan, Jeenu	CA	IAC-12.C4.2.15
Ragupathy, Ajay Prasad	CA	IAC-12.A6.5.23
Ragupathy, Ajay Prasad	CA	IAC-12.A6.6.10
Rahal, Naïm	CA	IAC-12.A2.2.21
Rahal, Naïm	CA	IAC-12.A2.3.7
Rahman, Md Abdur	A	IAC-12.A2.4.6
Rahman, Md Abdur	CA	IAC-12.A2.6.3
Rai, Balwant	A	IAC-12.A1.1.9
Rai, Balwant	A	IAC-12.A1.1.12
Rai, Balwant	A	IAC-12.A1.2.3
Rai, Balwant	CA	IAC-12.A5.1.2
Rai, Balwant	A	IAC-12.E5.2.7
Rai, Balwant	CA	IAC-12.A1.5.7
Rai, Balwant	CA	IAC-12.A5.3-B3.6.2
Raj, Xavier James	CA	IAC-12.A6.2.16
Raja, V.L.N. Sridhar	CA	IAC-12.A3.2B.9
Raja, V.L.N. Sridhar	CA	IAC-12.A3.3A.10
Rajaram, Babu	CA	IAC-12.B4.4.10
Rajaram, Babu	A	IAC-12.B2.6.5
Rakova, Natalia	CA	IAC-12.A1.8.5
Ramachandran, Vignesh	CA	IAC-12.B2.1.1
Ramakrishnan, Sundaram	CA	IAC-12.D3.1.1
Ramakrishnan, Sundaram	CA	IAC-12.C4.2.4
Ramakrishnan, Sundaram	CA	IAC-12.C4.2.15
Ramalingam, Pandiyan	CA	IAC-12.C1.5.4
Ramesh, Govindarajan	A	IAC-12.A1.8.12
Ramirez, Anthony	CA	IAC-12.A2.6.7
Rammos, Irina	A	IAC-12.A1.5.7
Rammos, Irina	CA	IAC-12.A5.3-B3.6.2
Ramos, Gonzalo	CA	IAC-12.A3.3C.2
Ramos, Victor Hugo	CA	IAC-12.B1.1.8
Ramusat, Guy	CA	IAC-12.D2.5.2
Rankin, John	CA	IAC-12.E1.1.5
Ransom, Stephen	CA	IAC-12.A1.6.20
Rantsus, Ramon	CA	IAC-12.C3.4.5
Rao, Dalin	A	IAC-12.C4.2.13
Rao, Dalin	CA	IAC-12.C4.2.20
Rao, M.V.H.	CA	IAC-12.A3.2B.9
Rao, M.V.H.	CA	IAC-12.A3.3A.10
Rao, Wei	CA	IAC-12.A3.2A.5
Rao, Wei	CA	IAC-12.A3.2B.6
Rapino, Gabriele	CA	IAC-12.B2.3.8
Rapisarda, Alessandro	A	IAC-12.A5.1.8
Rasconi, Riccardo	CA	IAC-12.B5.2.10
Rasel, Ernst Maria	CA	IAC-12.A2.1.6
Rasel, Ernst Maria	CA	IAC-12.A2.1.10
Rasel, Ernst Maria	CA	IAC-12.A2.1.13
Rasel, Ernst Maria	CA	IAC-12.A2.3.14
Rasheed, Touqeer	CA	IAC-12.C2.4.5
Rasheed, Touqeer	A	IAC-12.C2.4.13
Rastel, Laurent	CA	IAC-12.A3.3B.6
Rasuo, Bosko	CA	IAC-12.A3.3C.8
Rath, Hans	CA	IAC-12.A2.5.8
Rathnasabapathy, Minoo	CA	IAC-12.A6.2.13
Rathnasabapathy, Minoo	A	IAC-12.A6.5.28
Rathnasabapathy, Minoo	CA	IAC-12.B5.1.10
Rathnasabapathy, Minoo	CA	IAC-12.A6.6.1
Ratti, Francesco	CA	IAC-12.D1.5.3
Rauh, Manfred	CA	IAC-12.A1.8.5
Raus, Robin	A	IAC-12.C1.8.4
Ravaglia, Riccardo	CA	IAC-12.A6.1.12
Ravagnolo, Liliana	A	IAC-12.B6.3.6
Ravandoor, Karthik	CA	IAC-12.D1.2.6
Rawer, Rainer	CA	IAC-12.A1.2.20
Raykunov, Gennady	A	IAC-12.A3.3A.18
Rayman, Marc D.	A	IAC-12.A3.4.3
Re, Edoardo	CA	IAC-12.A3.3C.3
Read, Jon	CA	IAC-12.A6.1.1
Rebuffat, Denis	CA	IAC-12.A3.3B.4
Reddy, Bhargavi	CA	IAC-12.A6.6.10
Reddy, Shashank	CA	IAC-12.E7.1.5
Reddy, Shashank	A	IAC-12.E7.1.17
Reddy, Vishnu	CA	IAC-12.D3.1.7
Redi, Stefano	A	IAC-12.B4.6B.7
Reed, Cheryl	CA	IAC-12.A3.3A.7
Reed, Cheryl	CA	IAC-12.A3.2C.1

Reed, Helen	CA	IAC-12.A6.2.14
Reed, Jaime	A	IAC-12.A6.5.17
Reershemius, Siebo	CA	IAC-12.D1.1.6
Reese, Kenneth	CA	IAC-12.B4.5.9
Reetz, Stefanie	CA	IAC-12.B5.1.9
Reggentin, Matthias	CA	IAC-12.A2.1.5
Regoli, Leonardo	A	IAC-12.D1.2.6
Reibaldi, Giuseppe	A	IAC-12.D3.1.1
Reibaldi, Giuseppe	A	IAC-12.E3.4.1
Reibaldi, Giuseppe	A	IAC-12.D4.4.3
Reid, Tyler	CA	IAC-12.E5.1.13
Reinhart, Guillaume	CA	IAC-12.A2.3.6
Reinhart, Neubert	CA	IAC-12.C2.6.5
Reintsema, Detlef	A	IAC-12.D1.1.7
Reinumägi, Risto	CA	IAC-12.C3.4.5
Reiter, Thomas	CA	IAC-12.A3.1.6
Reiter, Thomas	A	IAC-12.B3.1.4
Reitz, Guenther	CA	IAC-12.A1.2.11
Reitz, Günther	CA	IAC-12.E1.4.6
Reitz, Günther	A	IAC-12.A1.4.3
Reitz, Günther	CA	IAC-12.A1.4.5
Reme, Henri	CA	IAC-12.A3.2A.6
Reme, Henri	CA	IAC-12.A3.2D.17
Remedia, Marcello	A	IAC-12.C2.3.3
Ren, Qiongying	A	IAC-12.A3.2A.6
Ren, Qiongying	CA	IAC-12.A3.2D.17
Ren, Tan	CA	IAC-12.A2.4.12
Ren, Xin	A	IAC-12.C4.5.16
Ren, Yuan	CA	IAC-12.C1.6.7
Renard, Matthias	CA	IAC-12.C1.4.9
Renga, Alfredo	CA	IAC-12.C1.3.4
Renga, Alfredo	CA	IAC-12.B4.7B.1
Renga, Alfredo	CA	IAC-12.B1.6.9
Renten, Pascal	CA	IAC-12.A3.1.9
Renyong, Zhang	CA	IAC-12.B2.5.13
Repucci, Antonio	CA	IAC-12.B5.1.6
Retat, Ingo	CA	IAC-12.A6.2.8
Retat, Ingo	A	IAC-12.A6.5.18
Retat, Ingo	CA	IAC-12.A6.7.4
Rettberg, Petra	CA	IAC-12.A1.5.9
Rettberg, Petra	A	IAC-12.A1.6.10
Rettberg, Petra	CA	IAC-12.A1.8.10
Rew, Dong-Young	CA	IAC-12.A3.2B.7
Rey, Daniel	CA	IAC-12.D3.3.2
Reyes, Matthew	CA	IAC-12.E6.4-D4.2.6
Reyes, Matthew	A	IAC-12.E6.3.7
Reyneri, Leonardo M.	CA	IAC-12.B4.7A.1
Reyneri, Leonardo M.	CA	IAC-12.B4.6B.9
Reyneri, Leonardo M.	CA	IAC-12.C3.4.3
Reyneri, Leonardo M.	CA	IAC-12.C3.4.12
Rhee, Sang-Myon	A	IAC-12.E7.3.3
RICARD, Nathalie	A	IAC-12.B2.5.1
Richard, Elizabeth	CA	IAC-12.A1.3.2
Richardson, Guy	CA	IAC-12.C2.3.3
Richiello, Camillo	CA	IAC-12.D2.3.7
Richiello, Camillo	CA	IAC-12.D2.4.1
Richiello, Camillo	CA	IAC-12.D2.4.15
Richter, Lutz	CA	IAC-12.A3.2B.5
Ridolfi, Guido	CA	IAC-12.D1.4.11
Ridolfi, Guido	CA	IAC-12.D1.6.11
Riegel, Justin	A	IAC-12.A2.3.13
Riehle, Fritz	CA	IAC-12.A2.1.3
Ries, John	CA	IAC-12.B4.2.1
Riether, Nina	CA	IAC-12.A5.3-B3.6.1
Rievers, Benny	CA	IAC-12.A2.1.2
Rijal, Syamsu	A	IAC-12.B6.2.19
Rios, Juan Carlos de los	CA	IAC-12.B4.7A.1
Rios, Juan Carlos de los	CA	IAC-12.C3.4.3
Riot, Vincent	CA	IAC-12.A6.2.14
Rishikof, Brian	A	IAC-12.C4.9.10
Ritter, Zully	CA	IAC-12.A1.2.8
Rittweger, Jörn	CA	IAC-12.A1.2.5
Rittweger, Jörn	CA	IAC-12.A1.2.16
Rivkin, Andrew	CA	IAC-12.A3.3A.7
Riwanto, Bagus Adiwiluhung	CA	IAC-12.E2.2.6
Roascio, Danilo	A	IAC-12.B4.6B.9
Roberson, Luke	A	IAC-12.D3.2.6
Robert, Eric	CA	IAC-12.C4.2.5
Robinson, David	CA	IAC-12.C4.4.9
Robinson, Fraser	A	IAC-12.A6.5.20
Robinson, Julie A.	A	IAC-12.B3.1.2
Roca, Vincenzo	CA	IAC-12.A1.4.13
Roche, Claire	CA	IAC-12.B1.2.4
Roche, Claire	CA	IAC-12.C1.8.8
Rochus, Pierre	CA	IAC-12.C2.8.5
Rock, Jim	CA	IAC-12.E1.9.5
Rock, Stephen	CA	IAC-12.C1.9.6
Rodencal, Matthew	A	IAC-12.C3.4.2
Rodič, Tomaž	CA	IAC-12.E1.2.8
Rodrigues, Luísa	CA	IAC-12.A1.5.7
Rodrigues, Luísa	CA	IAC-12.A5.3-B3.6.2
Rodrigues, Manuel	A	IAC-12.A2.1.1
Rodrigues, Pedro	CA	IAC-12.A3.2C.10
Rodrigues de Souza, Reinaldo	A	IAC-12.A2.2.7
Rodriguez, Eva	CA	IAC-12.B5.1.4
Rodriguez, Jacobo	CA	IAC-12.A2.5.1
Rodriguez, Jacobo	CA	IAC-12.A2.5.7
Rodriguez, Jose Antonio	CA	IAC-12.A3.5.15
Rodriguez, Mitchell	A	IAC-12.C2.4.14
Rodriguez, Mitchell	A	IAC-12.C2.4.15
Rodriguez, Mitchell	A	IAC-12.D2.4.9
Rodríguez Mitre, Alberto	CA	IAC-12.B4.8.7
Roetting, Matthias	CA	IAC-12.B3.2.8
Rogberg, Fredrik	CA	IAC-12.A2.3.15
Rogers, Jan	CA	IAC-12.A6.7.6
Roh, Tae-Seong	CA	IAC-12.C4.1.13
Rojas, Luis	CA	IAC-12.E4.1.4
Roldugin, Dmitriy	CA	IAC-12.C1.9.12
Roma, Pete	A	IAC-12.A1.1.11
Romano, Patrick	CA	IAC-12.B2.2.1
Romano, Patrick	A	IAC-12.B4.3.9
Romanov, Sergey	CA	IAC-12.A1.6.2
Romanov, Valery M.	CA	IAC-12.A3.1.11
Romashkin, Aleksey	A	IAC-12.D2.4.12
Rombaut, Michele	CA	IAC-12.A6.1.13
Romberg, Oliver	CA	IAC-12.A6.3.10
Romberg, Oliver	CA	IAC-12.C3.3.7
Romei, Federico	CA	IAC-12.D1.1.12
Romei, Federico	CA	IAC-12.E1.9.9
Romeo, Luca	CA	IAC-12.C4.3.5
Romero, Laia	CA	IAC-12.B5.1.6
Rominger, Kent	CA	IAC-12.D2.2.9
Rominger, Kent	CA	IAC-12.D2.8.6
Romstedt, Jens	CA	IAC-12.C3.2.3
Romstedt, Jens	CA	IAC-12.A3.3B.8
Rongier, Isabelle	A	IAC-12.D5.1.6
Roos, Maarten	CA	IAC-12.E1.7.6
Rosato, Maria Rosa	CA	IAC-12.A1.1.19
Roscigno, Rita	CA	IAC-12.B1.4.1
Rosenberg, Daniel	A	IAC-12.A3.2B.11
Rosenberg, Daniel	CA	IAC-12.B4.8.6
Rosengren, Aaron	A	IAC-12.A6.2.5
Roser, Xavier	CA	IAC-12.A3.1.7
Roser, Xavier	A	IAC-12.B1.2.12
Roser, Xavier	CA	IAC-12.A3.3B.4
Roshanian, Jafar	CA	IAC-12.B2.2.9
Ross, Edward	CA	IAC-12.B5.1.2
Rossi, Alessandro	A	IAC-12.A6.1.3
Rossi, Alessandro	CA	IAC-12.A3.4.17
Rossi, Stefano	CA	IAC-12.C1.2.8
Rossi, Stefano	A	IAC-12.D1.2.10
Rossi, Stefano	CA	IAC-12.D3.2.9
Rossi, Stefano	CA	IAC-12.D3.3.4
Rossi, Stefano	CA	IAC-12.C2.9.7
Rossodivita, Angela	CA	IAC-12.C4.4.7
Rota, Sergio	A	IAC-12.B1.1.1
Roth, Tim Otto	A	IAC-12.E5.4.6
Rothmund, Christophe	A	IAC-12.E4.2.7
Rottinghaus, Kevin	CA	IAC-12.D2.2.11
Roussel, Jean-Francois	A	IAC-12.D5.3.14

Rouvreau, Sebastien	A	IAC-12.A2.2.2
Roveda, Fausto	A	IAC-12.B1.4.3
Rowell, Nick	CA	IAC-12.C1.3.8
Rowinski, Artur	CA	IAC-12.C4.8.3
Ruault, Jean-Marc	CA	IAC-12.A6.5.5
Ruault, Jean-Marc	CA	IAC-12.A6.7.1
Rudat, Alexander	CA	IAC-12.D1.4.6
Rudat, Alexander	A	IAC-12.A5.4.1
Rudolph, Martin	CA	IAC-12.A6.3.3
Rudolph, Martin	A	IAC-12.A6.3.4
Rudy, Richard	CA	IAC-12.A6.1.21
Ruel, Stephane	A	IAC-12.C1.2.13
Ruff, Gary	A	IAC-12.A2.2.2
Rufino, Giancarlo	A	IAC-12.C1.9.1
Rufolo, Giuseppe	A	IAC-12.D2.6.2
Rufolo, Giuseppe	CA	IAC-12.D2.6.3
Rufolo, Giuseppe	CA	IAC-12.D2.6.13
Ruggiero, Andrea	CA	IAC-12.D2.3.12
Ruggiero, Andrea	CA	IAC-12.D1.4.7
Ruggiero, Andrea	A	IAC-12.A5.4.5
Ruggiero, Matteo Luca	A	IAC-12.B2.6.9
Ruhhammer, Florian	CA	IAC-12.D1.1.5
Ruiz, Hélène	A	IAC-12.B6.2.8
Ruiz, Vicente	CA	IAC-12.D3.4.4
Ruiz, Xavier	CA	IAC-12.A2.2.8
Ruiz, Xavier	CA	IAC-12.A2.6.1
Rukavishnikov, Ilya	A	IAC-12.A1.3.9
Rull, Fernando	CA	IAC-12.A3.3C.2
Rummel, John D.	CA	IAC-12.A3.3B.2
Rummel, John D.	A	IAC-12.A1.5.11
Runciman, Chris	CA	IAC-12.A3.1.1
Runge, Martin	CA	IAC-12.A1.2.20
Runte, Torben	CA	IAC-12.C2.3.4
Rusanov, Vasily	CA	IAC-12.A1.2.23
Russell, Ray	CA	IAC-12.A6.1.21
Russell, Stephen	CA	IAC-12.E1.1.4
Russo, Annamaria	CA	IAC-12.C4.2.9
Russo, Annamaria	CA	IAC-12.C4.9.3
Russo, Gennaro	CA	IAC-12.A1.3.1
Russo, Gennaro	CA	IAC-12.D2.8.1
Ryabukha, Nikolay	CA	IAC-12.D2.5.7
Ryan, Shannon	A	IAC-12.A6.3.1
Ryoo, Chang-Kyung	CA	IAC-12.B2.6.8
Röser, Hans-Peter	CA	IAC-12.C4.4.15
Röser, Hans-Peter	CA	IAC-12.E1.6.11
Röser, Hans-Peter	CA	IAC-12.B4.8.8
Röser, Hans-Peter	CA	IAC-12.C4.7-C3.5.6
Röser, Hans-Peter	CA	IAC-12.C4.7-C3.5.8
Röser, Hans-Peter	CA	IAC-12.C3.4.6
Rößler, Dirk	CA	IAC-12.D1.6.3

S

Name	Role	Paper
S, Mathavaraj	A	IAC-12.C1.5.4
S, Sankaran	A	IAC-12.D2.2.14
S.C., Rathnakara	CA	IAC-12.B4.4.10
S.C., Rathnakara	CA	IAC-12.B2.6.2
S.C., Rathnakara	CA	IAC-12.B2.6.5
Saage, Rainer	CA	IAC-12.C1.1.7
Saaj, Chakravarthini	CA	IAC-12.D1.6.1
Saavedra-Criado, Gonzalo	CA	IAC-12.C1.8.2
Sabath, Dieter	A	IAC-12.B3.4-B6.5.1
Sabatini, Marco	CA	IAC-12.C2.2.3
Sabatini, Marco	A	IAC-12.C2.2.8
Sabatini, Marco	CA	IAC-12.C2.2.11
Sabatini, Marco	CA	IAC-12.C2.3.6
Sabatini, Marco	A	IAC-12.C1.8.11
Sabbatini, Massimo	A	IAC-12.B3.3.11
Sabirin Arshad, Ahmad	CA	IAC-12.B1.4.15
Sabirov, Rustam	CA	IAC-12.A2.2.5
Sabogal, Aldo Esteban	A	IAC-12.E1.2.6
Sacchetti, Andrea	CA	IAC-12.B4.8.3
Saccoccia, Giorgio	CA	IAC-12.A3.1.1
Sachasiri, Ravit	CA	IAC-12.B1.1.11
Sachasiri, Ravit	A	IAC-12.E6.3.2
Saez Jauset, Nuria	CA	IAC-12.A2.2.8
Saez Jauset, Nuria	A	IAC-12.A2.6.1
Sagean, Romain	CA	IAC-12.A5.3-B3.6.5
Saghari, Asad	CA	IAC-12.D1.1.13
Saghir, Ziad	CA	IAC-12.A2.4.6
Saghir, Ziad	CA	IAC-12.A2.6.2
Saghir, Ziad	CA	IAC-12.A2.6.3
Saghir, Ziad	CA	IAC-12.A2.6.5
Sagliano, Marco	A	IAC-12.C1.1.2
Saha, Shibu	A	IAC-12.B4.4.10
Sahu, Ankita	CA	IAC-12.C4.6.7
Sahu, Ankita	CA	IAC-12.A6.7.9
Saiki, Takanao	CA	IAC-12.D1.1.3
Saiki, Takanao	A	IAC-12.A3.4.8
Sain, Enrico	CA	IAC-12.D3.3.6
Saini, Himani	A	IAC-12.A6.2.16
Saint Martin, Sabine	A	IAC-12.C4.2.5
Saito, Hirobumi	A	IAC-12.B2.3.1
Saito, Toshihito	CA	IAC-12.C4.5.1
Saitoh, Shohei	CA	IAC-12.C4.8.7
Sakagami, Keiichiro	A	IAC-12.A2.5.2
Sakai, Paulo	CA	IAC-12.D6.1.1
Sakamoto, Keishi	CA	IAC-12.C4.3.10
Sakamoto, Keishi	CA	IAC-12.C4.8.7
Sakamoto, Nobuomi	CA	IAC-12.D1.2.2
Sakamoto, Yuji	CA	IAC-12.A6.4.5
Sakamoto, Yuji	CA	IAC-12.B4.7A.5
Sakamoto, Yuji	CA	IAC-12.D1.6.4
Sakita, Mauro	CA	IAC-12.C2.3.8
Saks, Noah	A	IAC-12.A3.4.11
Salazar, Francisco	CA	IAC-12.C1.7.10
Saleh, Mahmoud	A	IAC-12.A1.3.12
Salehi, Sohrab	CA	IAC-12.C1.3.8
Sales, Salvador	CA	IAC-12.D1.2.9
Saliashvili, Salome	A	IAC-12.D3.4.11
Salinari, Piero	CA	IAC-12.A6.1.18
Salloum Abou Jaoude, Georges	CA	IAC-12.A2.3.6
Salnikova, Anastasiya	CA	IAC-12.A2.2.19
Salotti, Jean Marc	A	IAC-12.A5.3-B3.6.5
Salvatore, Vito	CA	IAC-12.C4.3.4
Salvoni, Ilenya	A	IAC-12.B6.1.1
Salzillo, Giuseppe	CA	IAC-12.B1.3.8
Samareh, Jamshid	CA	IAC-12.A3.5.17
Sambasiva Rao, V	CA	IAC-12.D5.1.3
Sambasiva Rao, V	CA	IAC-12.C3.4.7
Samkan, Mahmoud	A	IAC-12.B2.3.10
Sample, John	CA	IAC-12.B4.2.4
Samson, Claire	CA	IAC-12.A3.3A.17
Sanchez, Maria	CA	IAC-12.C2.8.7
Sanchez Aranzamendi, Matxalen	A	IAC-12.E7.2.12
Sanchez Cuartielles, Joan Pau	A	IAC-12.C1.5.13
Sanchez Ortiz, Noelia	CA	IAC-12.A6.1.15
Sandal, Gro Mjeldheim	A	IAC-12.A1.1.3
Sanders, Blaze	CA	IAC-12.A3.2D.11
Sanders, Blaze	A	IAC-12.B4.8.4
Sanders, Gerald	CA	IAC-12.A3.2C.4
Sandoval, Magaly	CA	IAC-12.B4.1.7
Sandoval, Magaly	A	IAC-12.E5.1.7
Sandoval, Natalia	CA	IAC-12.E1.2.6
Sandrik, Suzzanah	A	IAC-12.A6.5.23
Sano, Tomoaki	A	IAC-12.A2.4.11
Sansone, Francesco	CA	IAC-12.D1.2.7
Sansone, Fulvio	A	IAC-12.B5.1.7
Santandrea, Stefano	CA	IAC-12.B4.3.1
Santandrea, Stefano	CA	IAC-12.B4.4.7
Santini, Christian	CA	IAC-12.C1.2.1
Santo, Loredana	A	IAC-12.A2.6.8
Santo, Loredana	CA	IAC-12.C2.9.12
Santoni, Fabio	CA	IAC-12.A6.1.3
Santoni, Fabio	A	IAC-12.A6.1.12
Santoni, Fabio	CA	IAC-12.D1.1.12
Santoni, Fabio	A	IAC-12.A6.5.22
Santoni, Fabio	CA	IAC-12.C4.6.9
Santoni, Fabio	A	IAC-12.C3.4.1
Santoni, Fabio	CA	IAC-12.E1.9.9
Santonico, Gabriele	CA	IAC-12.C2.1.2
Santoro, Francesco	CA	IAC-12.B3.4-B6.5.5
Santos, Denilson Paulo Souza dos	A	IAC-12.A3.4.21
Santovito, Maria Rosaria	CA	IAC-12.B1.3.10
Santovito, Maria Rosaria	CA	IAC-12.A3.4.10
Santovito, Maria Rosaria	CA	IAC-12.A3.5.8
Sapone, Rosa	A	IAC-12.B3.4-B6.5.5
Saprykin, Oleg	A	IAC-12.B3.2.3
Saprykin, Oleg	A	IAC-12.A3.2C.3
Sarae, Wataru	CA	IAC-12.D2.1.9
Sarpal, Shikhar	CA	IAC-12.A4.1.12
Sarrailh, Pierre	CA	IAC-12.D5.3.14
Sarty, Gordon	A	IAC-12.A1.3.13
Sasahara, Matsutaka	CA	IAC-12.D1.6.8
Sasaki, Atsushi	A	IAC-12.D2.5.5
Sasaki, Atsushi	CA	IAC-12.C4.6.1
Sasaki, Susumu	A	IAC-12.C3.1.4
Sasaki, Susumu	CA	IAC-12.C3.2.2
Sasaki, Susumu	CA	IAC-12.C3.2.4
Sasaki, Susumu	CA	IAC-12.C3.3.6
Sasaki, Takuro	CA	IAC-12.C3.2.4
Sasaki, Toru	CA	IAC-12.C4.4.16
Sasongko, Rianto	CA	IAC-12.E2.2.6
Sato, Masaki	CA	IAC-12.C4.1.8
Sato, Masaki	CA	IAC-12.C4.5.1
Sato, Tatsuya	A	IAC-12.A2.5.14
Sato, Yutaka	CA	IAC-12.C4.1.5
Sato, Yutaka	A	IAC-12.D2.1.11
Satoh, Masaki	A	IAC-12.B2.2.6
Satpathy, Sagar	A	IAC-12.A5.1.5
Satpathy, Sagar	A	IAC-12.C4.6.7
Satpathy, Sagar	A	IAC-12.A6.7.9
Sattler, Birgit	CA	IAC-12.A5.2.6
Saura Carretero, Gemma	A	IAC-12.A3.2D.5
Sauvageau, Donald	A	IAC-12.D2.2.9
Sauvageau, Donald	A	IAC-12.D2.8.6
Savage, Nigel	CA	IAC-12.E1.1.3
Savelev, Igor	CA	IAC-12.A1.1.5
Savin, Sergey	CA	IAC-12.A2.6.6
Savino, Raffaele	CA	IAC-12.A2.3.7
Savino, Raffaele	CA	IAC-12.D2.3.1
Savino, Raffaele	CA	IAC-12.C2.4.2
Savio, Giuseppe	CA	IAC-12.A4.1.8
Savioli, Livia	A	IAC-12.D1.2.7
Sawada, Hirotaka	CA	IAC-12.D1.1.3
Sawada, Hirotaka	CA	IAC-12.D1.2.2
Sawada, Hirotaka	A	IAC-12.A3.4.6
Sawada, Hirotaka	CA	IAC-12.A3.4.8
Sawai, Ken	CA	IAC-12.C2.2.9
Sawai, Shujiro	CA	IAC-12.A3.2D.23
Sayuti, Mohd Fadhil	CA	IAC-12.B1.4.15
Scaramuzzino, Francesca	CA	IAC-12.C4.9.3
Scarda, Stefano	A	IAC-12.E3.1.2
Schaefer, Frank	CA	IAC-12.A6.3.3
Schaefer, Matthew	A	IAC-12.E7.3.2
Schaefer, Robert	CA	IAC-12.B5.2.4
Schaefer, Uwe	CA	IAC-12.A6.3.2
Scheeres, Daniel	CA	IAC-12.A6.2.5
Scheeres, Daniel	CA	IAC-12.B2.2.12
Scheeres, Daniel	CA	IAC-12.C1.6.11
Scheffler, Tobias	CA	IAC-12.B4.5.12
Scheper, Marc	CA	IAC-12.D2.3.1
Scheper, Marc	A	IAC-12.A6.4.8
Scheper, Marc	CA	IAC-12.A6.6.9
Schervan, Thomas	A	IAC-12.D1.1.4
Schettino, Antonio	CA	IAC-12.C4.1.1
Schildknecht, Thomas	CA	IAC-12.A6.1.5
Schildknecht, Thomas	CA	IAC-12.A6.1.16
Schildknecht, Thomas	CA	IAC-12.A6.2.6
Schilling, Klaus	A	IAC-12.D1.2.4
Schilling, Klaus	CA	IAC-12.D1.2.6
Schilling, Klaus	CA	IAC-12.B6.2.11
Schillirò, Francesco	A	IAC-12.A4.1.5
Schillirò, Francesco	CA	IAC-12.A4.1.6
Schillo, Kevin	A	IAC-12.A3.2D.9
Schillo, Kevin	A	IAC-12.C4.7-C3.5.12
Schlacht, Irene Lia	CA	IAC-12.A1.1.13
Schlacht, Irene Lia	CA	IAC-12.A1.1.19
Schlacht, Irene Lia	A	IAC-12.B3.2.8
Schlacht, Irene Lia	A	IAC-12.A5.1.2
Schlacht, Irene Lia	CA	IAC-12.E5.3.9
Schlacht, Irene Lia	CA	IAC-12.A1.6.20
Schlacht, Irene Lia	CA	IAC-12.A5.3-B3.6.2
Schlacht, Irene Lia	A	IAC-12.D4.4.2
Schlacht, Irene Lia	CA	IAC-12.E5.4.5
Schlacht, Irene Lia	A	IAC-12.E5.5A.3
Schlepp, Benjamin	CA	IAC-12.B6.2.9
Schlutz, Juergen	CA	IAC-12.A3.2B.10
Schmidt, George	A	IAC-12.D3.1.3
Schmidt, George	CA	IAC-12.C4.4.6
Schmidt, Marco	CA	IAC-12.D1.2.4
Schmidt, Marco	CA	IAC-12.D1.2.6
Schmidt, Marco	A	IAC-12.B6.2.11
Schmidt, Michael	CA	IAC-12.B5.2.6
Schmidt-Tedd, Bernhard	A	IAC-12.E7.5.4
Schmitt, Denis	A	IAC-12.D2.1.7
Schmitz, Burkhard	CA	IAC-12.A1.5.8
Schmitz, Claudia	CA	IAC-12.A1.4.5
Schneider, Marvin	CA	IAC-12.E1.6.8
Schneider, Sebastian	CA	IAC-12.A5.3-B3.6.1
Schoenenberg, Andreas	CA	IAC-12.B4.4.1
Schoenmaker, Annelie	A	IAC-12.YPVF.3.2
Schoukroun, Lucas	A	IAC-12.D2.7.5
Schrader, Jan-Rutger	CA	IAC-12.A3.2C.8
Schroeder, Jan Walter	A	IAC-12.A1.2.7
Schubert, Daniel	A	IAC-12.A5.2.4
Schubert, Daniel	CA	IAC-12.E5.3.10
Schubert, Daniel	CA	IAC-12.A1.6.20
Schubert, Daniel	CA	IAC-12.D3.4.9
Schubert, Kathleen	A	IAC-12.D2.3.11
Schuch, Nelson Jorge	CA	IAC-12.B4.2.8
Schuch, Nelson Jorge	A	IAC-12.B4.1.5
Schuch, Nelson Jorge	CA	IAC-12.B1.3.12
Schuch, Nelson Jorge	CA	IAC-12.C3.4.10
Schuldt, Thilo	A	IAC-12.A2.1.5
Schuldt, Thilo	CA	IAC-12.A2.1.6
Schuldt, Thilo	CA	IAC-12.A2.1.13
Schulze-Varnholt, Dirk	CA	IAC-12.B3.4-B6.5.1
Schumacher, Daniel	CA	IAC-12.A5.4.10
Schumacher, Daniel	CA	IAC-12.A6.7.5
Schutte, Adriaan	A	IAC-12.D2.4.16
Schuurbiers, Coen	CA	IAC-12.C4.6.2
Schwarz, Benjamin S	A	IAC-12.D1.4.4
Schwarz, Egbert	A	IAC-12.B1.5.1
Schwehm, Gerhard	A	IAC-12.D5.2.8
Schweickart, Russell	CA	IAC-12.E3.1.9
Schwendner, Petra	CA	IAC-12.A1.6.10
Schäfer, Frank	CA	IAC-12.A6.3.4
Schäfer, Frank	CA	IAC-12.A6.3.10
Schäfer, Frank	CA	IAC-12.A6.4.8
Schönhuber, Michael	CA	IAC-12.B2.5.8
Schönhuber, Michael	CA	IAC-12.B2.5.15
Schütte, Andreas	CA	IAC-12.A1.5.8
Sciberras, Lawrence	CA	IAC-12.B4.4.1
Scicluna, Christophe	A	IAC-12.E1.9.1
SCIGLIANO, ROBERTO	A	IAC-12.C2.1.16
Sciortino, Giacomo Primo	CA	IAC-12.E3.3.5
Sciti, Diletta	CA	IAC-12.C2.4.2
Sciti, Diletta	CA	IAC-12.C2.4.3
Sciuto, Federico	CA	IAC-12.C1.9.5
Scognamiglio, Mariana	CA	IAC-12.B6.1.5
Scolari, Simone Maria	CA	IAC-12.A3.2D.29
Scott, Alan	CA	IAC-12.A1.3.13
Seager, Sara	CA	IAC-12.B4.2.7
Seager, Sara	CA	IAC-12.B4.6B.8
Seager, Sara	CA	IAC-12.B4.6B.10
Searcy, Brittani	A	IAC-12.E4.3B.3
Seboldt, Wolfgang	CA	IAC-12.A1.6.20

Secara, Teodora	A	IAC-12.B5.1.9
Sechenyh, Vitaliy	A	IAC-12.A2.6.4
Sechi, Gianfranco	A	IAC-12.C1.8.2
Seelin, Kiran Kumar	A	IAC-12.B1.1.2
Sefiane, Khellil	CA	IAC-12.A2.4.1
Segato, Elisa	CA	IAC-12.A3.3C.1
Seidel, Stephan	A	IAC-12.A2.1.10
Seidel, Stephan	A	IAC-12.A2.3.14
Seiferlin, Karsten	CA	IAC-12.A3.4.10
Seine, Ruediger	CA	IAC-12.B6.3.5
Seine, Ruediger	CA	IAC-12.B6.3.6
Seitzer, Patrick	A	IAC-12.A6.1.6
Sekerzh-Zenkovich, Sergey Ya.	CA	IAC-12.B3.5.7
Sekhula, Phetole	A	IAC-12.E7.2.15
Selig, Hanns	A	IAC-12.A2.5.4
Semaille, Christophe	CA	IAC-12.D5.3.9
Semenov, Sergey	CA	IAC-12.E7.5.14
Semenov, Vasily	CA	IAC-12.C3.3.13
Semken, Steven	CA	IAC-12.E1.3.1
Semkova, Jordanka	A	IAC-12.A1.4.17
Senese, Samuel	CA	IAC-12.C3.2.3
Senese, Samuel	A	IAC-12.A3.3B.8
Senese, Samuel	CA	IAC-12.A3.3C.3
Seo, Daeban	A	IAC-12.C4.3.7
Seo, JeongJae	A	IAC-12.D6.1.5
Seon, Jongho	CA	IAC-12.B4.2.4
Serdyuk, Anatoliy	CA	IAC-12.C4.3.11
Sergey, Samburov	A	IAC-12.B3.5.8
Serikova, Alla	CA	IAC-12.D2.4.12
Serna Ferrer, Jorge	CA	IAC-12.D2.3.5
Serra, Daniele	CA	IAC-12.A3.5.4
Serraglia, Ferruccio	CA	IAC-12.C4.2.1
Serraglia, Ferruccio	CA	IAC-12.C4.9.2
Serva, Stefano	CA	IAC-12.B1.1.4
Serva, Stefano	CA	IAC-12.B1.3.9
Serva, Stefano	CA	IAC-12.B1.4.2
Sese, Rogel Mari	A	IAC-12.E1.2.9
Setayesh, Brandon	A	IAC-12.D1.3.10
Setayesh, Brandon	A	IAC-12.E1.3.3
Seth, Romy	A	IAC-12.A1.3.5
Seurig, Roland	CA	IAC-12.A2.7.6
Sever, Tom	CA	IAC-12.B1.1.8
Sever, Tom	CA	IAC-12.E3.2.4
Sever, Tom	CA	IAC-12.B1.3.6
Sever, Tom	CA	IAC-12.B1.5.6
Sfair, Rafael	CA	IAC-12.A3.5.21
Sgambati, Antonella	A	IAC-12.A3.2C.11
Sghedoni, Michel	CA	IAC-12.B1.2.12
Sgobba, Tommaso	CA	IAC-12.D5.1.5
Shahsavar, Amin	A	IAC-12.B1.2.7
Shan, Jinjun	CA	IAC-12.C2.5.3
Shanbhogue, Krishna Mohan	A	IAC-12.C4.4.5
Shang, Haibin	CA	IAC-12.A3.4.12
Shankar, Bhairavi	CA	IAC-12.A5.3-B3.6.3
Shanmugam, C N	CA	IAC-12.C3.4.7
Sharaf, Omran	CA	IAC-12.B4.1.2
Sharma, Aditya	A	IAC-12.E7.1.13
Sharma, Aditya	A	IAC-12.E7.1.24
Sharma, Aditya	CA	IAC-12.A3.2D.14
Sharma, Aditya	CA	IAC-12.A6.5.24
Sharma, Aditya	A	IAC-12.A6.6.2
Sharma, Sagar	CA	IAC-12.A4.1.12
Sharp, Jonathan	CA	IAC-12.A1.3.13
Sharpe, Carla	A	IAC-12.E3.3.9
Sharpe, Carla	A	IAC-12.E6.1.9
Sharpe, Carla	A	IAC-12.E7.7-B3.8.4
Shengping, Gong	CA	IAC-12.A5.1.10
Shenyan, Chen	CA	IAC-12.D1.3.9
Shergill, Satinder	A	IAC-12.A5.1.3
Sherman, J. Daniel	CA	IAC-12.D3.4.11
Sherwood, Brent	A	IAC-12.A3.1.10
Sherwood, Brent	A	IAC-12.C3.1.2
Sherwood, Brent	A	IAC-12.D3.1.6
Shestakova, Ksenia	A	IAC-12.E7.3.12
Shevtsova, Valentina	A	IAC-12.A2.3.12
Shevtsova, Valentina	A	IAC-12.A2.4.5
Shevtsova, Valentina	CA	IAC-12.A2.4.10
Shevtsova, Valentina	CA	IAC-12.A2.6.1
Shevtsova, Valentina	CA	IAC-12.A2.6.4
Shibuya, Yoshihiko	CA	IAC-12.A6.4.5
Shibuya, Yoshihiko	CA	IAC-12.B4.7A.5
Shibuya, Yoshihiko	CA	IAC-12.D1.6.4
ShiGang, Shao	CA	IAC-12.C4.4.18
Shijie, Xu	CA	IAC-12.C1.1.3
Shimada, Toru	CA	IAC-12.C4.2.12
Shimada, Toru	CA	IAC-12.C4.2.26
Shimamiya, Tamiyasu	CA	IAC-12.B3.7.6
Shimamura, Kohei	CA	IAC-12.C4.8.10
Shimizu, Kensuke	A	IAC-12.B4.3.4
Shimizu, Miho	CA	IAC-12.A1.3.3
Shimose, Shigeru	A	IAC-12.C3.3.9
Shimura, Koji	A	IAC-12.D2.1.9
Shine, Lindsay	CA	IAC-12.B1.3.6
Shine, Samantha	A	IAC-12.B1.3.6
Shine, Samantha	A	IAC-12.E1.3.4
Shintaku, Kengo	A	IAC-12.C2.2.10
Shiraki, Kuniaki	A	IAC-12.D3.2.5
Shirasaka, Seiko	CA	IAC-12.D1.3.2
Shirasawa, Yoji	CA	IAC-12.D1.1.3
Shirasawa, Yoji	CA	IAC-12.E5.1.9
Shish, Kimberlee	CA	IAC-12.E1.1.4
Shmyrov, A. V.	CA	IAC-12.A2.4.4
Short, Cody	A	IAC-12.C1.6.2
Shortt, Kevin	A	IAC-12.B2.2.3
Shostak, Seth	A	IAC-12.A4.2.2
Shouping, Li	A	IAC-12.E7.5.2
Shovkoplias, Yuriy	CA	IAC-12.B4.2.3
Shpakov, Alexsei	CA	IAC-12.A1.2.10
Shu Xing, Feng	CA	IAC-12.A6.5.6
Shuch, H. Paul	A	IAC-12.A4.1.1
Shuch, H. Paul	A	IAC-12.A4.2.1
Shukla, Ranjit	A	IAC-12.A2.2.16
Shukul, Raghav	A	IAC-12.A6.5.24
Shurshakov, Vyacheslav	CA	IAC-12.A1.4.17
Shuto, Kazuo	CA	IAC-12.C4.4.26
Shuvalov, Valentin	CA	IAC-12.B4.2.3
Shuwei, Cao	CA	IAC-12.C2.8.2
Shuyu, Zhang	CA	IAC-12.C1.4.11
Shuyu, Zhang	CA	IAC-12.E5.1.11
Shved, Dmitry	CA	IAC-12.A1.1.2
Siddiqui, Muhammad Zeeshan	CA	IAC-12.C2.1.3
Siebe, Frank	CA	IAC-12.C2.1.10
Siemion, Andrew	CA	IAC-12.A4.1.2
Siemion, Andrew	A	IAC-12.A4.1.3
Sigismondi, Roberto	CA	IAC-12.B1.4.1
Silha, Jiri	CA	IAC-12.A6.1.6
Silvernail, Nathan	A	IAC-12.A2.3.8
Silvestroni, Laura	CA	IAC-12.C2.4.2
Simanovskii, Ilya	CA	IAC-12.A2.2.6
Simard, Mohammad Reza	CA	IAC-12.E1.9.8
Simetti, Enrico	CA	IAC-12.A5.3-B3.6.6
Simmet, Dana	CA	IAC-12.A1.7.5
Simone, Lorenzo	CA	IAC-12.B2.1.10
Sindoni, Giampiero	CA	IAC-12.B4.2.1
Sindoni, Giampiero	CA	IAC-12.C2.1.17
Singh, Balbir	A	IAC-12.D2.3.6
Singh, Hardeep	CA	IAC-12.E7.1.24
Singh, Hardeep	A	IAC-12.A3.2D.14
Singh, Medhavi	CA	IAC-12.E7.1.13
Sinha, Anubhav	A	IAC-12.E7.1.29
Sinha, Guruditya	CA	IAC-12.A3.2D.30
Sinha, Guruditya	A	IAC-12.B4.3.10
Sinn, Thomas	A	IAC-12.A2.3.15
Sinn, Thomas	CA	IAC-12.E2.3.7
Sinn, Thomas	A	IAC-12.A6.5.27
Sinn, Thomas	A	IAC-12.C2.5.1
Sinyak, Yuriy	CA	IAC-12.A1.6.2
Sippel, Martin	CA	IAC-12.C4.1.11
Sippel, Martin	A	IAC-12.D2.5.6
Siraj, Aimal	A	IAC-12.B4.6A.11
Skinner, Mark	A	IAC-12.A6.1.21
Skogby, Jerker	CA	IAC-12.A2.3.15
Skoog, Ake Ingemar	A	IAC-12.E4.2.3
Skorov, Yuri	CA	IAC-12.A3.4.2
Slabinski, Victor	CA	IAC-12.B4.2.1
Slater, Meagan	CA	IAC-12.E2.3.6
Slavinskis, Andris	A	IAC-12.B4.5.12
Slenzka, Klaus	CA	IAC-12.A3.2C.11
Sloan, John	CA	IAC-12.D6.1.3
Slyunyaev, Mykola M.	A	IAC-12.C4.6.10
Slyunyaev, Mykola M.	CA	IAC-12.C2.8.12
Slyvynskyi, Volodymyr	A	IAC-12.C2.4.6
Sléber, Botond	CA	IAC-12.E1.7.6
Smets, Nanja	A	IAC-12.A1.1.23
Smirnov, Igor	A	IAC-12.A1.4.21
Smirnov, Nickolay N.	A	IAC-12.A2.2.2
Smirnov, Nickolay N.	CA	IAC-12.A2.2.3
Smirnov, Nickolay N.	A	IAC-12.A2.2.4
Smirnov, Nickolay N.	A	IAC-12.A2.2.13
Smit, Johannes	CA	IAC-12.A1.1.4
Smith, Bryan K.	A	IAC-12.C4.4.2
Smith, Caroline	CA	IAC-12.A3.3B.12
Smith, Craig	CA	IAC-12.A6.5.11
Smith, David Brent	CA	IAC-12.E3.2.2
Smith, Lesley Jane	A	IAC-12.E7.2.9
Smith, Matthew	CA	IAC-12.B4.2.7
Smith, Milton	A	IAC-12.E7.5.1
Smith, Stephen	CA	IAC-12.E7.5.1
Smith, Tabitha	CA	IAC-12.E3.1.12
Smith, Tabitha	A	IAC-12.C4.7-C3.5.13
Smith, Timothy	CA	IAC-12.C4.4.6
Smolders, André	CA	IAC-12.B1.2.2
Snyder, Brian	CA	IAC-12.A1.2.19
Snyder, Corey	CA	IAC-12.E2.3.6
Sodor, Balint	A	IAC-12.D1.3.4
Sokolov, Nikolay	CA	IAC-12.A3.3A.18
Sokolov, Nikolay	A	IAC-12.B6.2.5
Sokolov, Nikolay	A	IAC-12.B6.2.17
Sokolov, Oleg	CA	IAC-12.C2.9.3
Sokolov, Oleg A.	A	IAC-12.E4.2.9
Sokolovskaya, Alisa	CA	IAC-12.A1.7.12
Sollazzo, Loredana	CA	IAC-12.A6.2.11
Sollazzo, Loredana	CA	IAC-12.C1.4.7
Solntsev, Vladimir	CA	IAC-12.C4.1.10
Solomon, Sean C.	CA	IAC-12.C1.5.6
Solomon, Sean C.	CA	IAC-12.A3.5.1
Sommer, Bernd	CA	IAC-12.D1.1.7
Sommer, Bernd	A	IAC-12.D3.3.3
Son, Taek-Joon	A	IAC-12.C2.1.5
Sone, Yoshitugu	CA	IAC-12.E5.1.9
Song, Ruihai	A	IAC-12.A6.3.12
Soni, Pramod Kumar	CA	IAC-12.C1.2.3
Sonter, Mark	CA	IAC-12.E6.2.8
Soos, Balint	A	IAC-12.E1.7.6
Sorensen, Trevor	A	IAC-12.A3.2C.7
Sorge, Marlon	CA	IAC-12.A6.3.7
Soriano Gomez, Antonio	CA	IAC-12.E5.3.11
Sorokin, Igor V.	CA	IAC-12.B3.1.2
Sorokin, Igor V.	A	IAC-12.B3.3.4
Sorrentino, Domenico	CA	IAC-12.A2.5.9
Sorrentino, Salvatore	CA	IAC-12.A2.4.3
Sors Raurell, Daniel	CA	IAC-12.E6.1.1
Sors Raurell, Daniel	A	IAC-12.E5.2.11
Sors Raurell, Daniel	A	IAC-12.B4.8.7
Sors Raurell, Daniel	CA	IAC-12.E1.7.5
Sotaquira, Miguel	CA	IAC-12.A1.2.1
Souillet-Sundberg, Céline	CA	IAC-12.D3.4.7
Spadanuda, Antonio	CA	IAC-12.D1.1.12
Spadanuda, Antonio	CA	IAC-12.E1.9.9
Spadavecchia, Ulderico	A	IAC-12.C4.4.16
Spagnulo, Marcello	CA	IAC-12.D2.4.1
Spagnulo, Marcello	CA	IAC-12.D2.5.4
Spano, Daniele	CA	IAC-12.C2.1.17
Spano, Daniele	CA	IAC-12.C2.6.5
Spatz, Jordan	A	IAC-12.A1.7.4
Spelat, Renza	CA	IAC-12.A1.7.2
Spencer, David	CA	IAC-12.B4.8.1
Spencer, David B.	A	IAC-12.B4.8.5
Spencer, Phillip	A	IAC-12.E1.1.5
Speretta, Stefano	A	IAC-12.B4.7A.3
Speretta, Stefano	A	IAC-12.B4.6A.9
Sperindè, Alessandro	CA	IAC-12.A5.3-B3.6.6
Speser, Phyl	A	IAC-12.E5.1.1
Speser, Phyl	A	IAC-12.E5.2.9
Spiezia, Michele	CA	IAC-12.C4.9.3
Spitler, Laura	CA	IAC-12.A4.1.3
Spohn, Tilman	CA	IAC-12.A3.4.7
Srama, Ralf	CA	IAC-12.B4.8.8
Srblin, Martina	A	IAC-12.E7.1.26
Sridhar, Apoorva	CA	IAC-12.E2.3.9
Srikanth, Motamarri	CA	IAC-12.C1.9.11
Srinivas, Dale	A	IAC-12.A1.5.14
Srinivas, Dale	A	IAC-12.A1.6.18
Srinivasan, Nirmala	CA	IAC-12.B2.6.2
Srinivasan, Seshasai	A	IAC-12.A2.6.2
Srinivasan, V	CA	IAC-12.C2.7.10
Ssansoè, Claudio	CA	IAC-12.B2.3.2
Ssansoè, Claudio	CA	IAC-12.B2.3.3
Stabroth, Sebastian	CA	IAC-12.A6.2.8
Stambouli, Moncef	CA	IAC-12.A2.2.19
Stanford, Martin	A	IAC-12.E7.2.1
Stanford, Martin	CA	IAC-12.E7.2.5
Stanic, Milos	A	IAC-12.C4.7-C3.5.9
Stanic, Milos	CA	IAC-12.C4.8.4
Stanley, Douglas O.	A	IAC-12.D2.9-D6.2.8
Starke, Juergen	CA	IAC-12.A6.5.18
Starkloff, Martin	A	IAC-12.C2.7.4
Steel, Robin	CA	IAC-12.B6.2.16
Steele, Paul	CA	IAC-12.B6.2.15
Stefanelli, Letizia	A	IAC-12.C1.7.9
Stefanescu, Mihaela Raluca	CA	IAC-12.E2.3.3
Steffen, Christopher	CA	IAC-12.C4.7-C3.5.2
Steffen, Sinje	A	IAC-12.B6.4.1
Steier, Frank	CA	IAC-12.C2.3.4
Steiner, Ted	A	IAC-12.A3.2D.19
Stekel, Tardelli Ronan Coelho	CA	IAC-12.B4.2.8
Stekel, Tardelli Ronan Coelho	CA	IAC-12.B4.1.5
Stella, Fulvio	A	IAC-12.C4.2.23
Stella, Fulvio	A	IAC-12.C4.8.8
Stelmakh, Olga S.	A	IAC-12.E7.3.11
Stelmakh, Olga S.	CA	IAC-12.E7.5.4
Stelwagen, Frank	CA	IAC-12.B4.7A.3
Stelwagen, Frank	CA	IAC-12.B4.6A.9
Stemple, Cynthia	CA	IAC-12.A3.2C.1
Stephane, Louvel	CA	IAC-12.E7.5.13
Stern, Ben	CA	IAC-12.B1.2.10
Stesina, Fabrizio	A	IAC-12.B4.6B.6
Stettner, Armin	CA	IAC-12.A2.7.6
Steyn, Willem (Herman)	CA	IAC-12.A6.5.12
Stiles, Amanda	A	IAC-12.D3.3.1
Stiles, Amanda	A	IAC-12.B4.8.2
Stillace, Thierry	CA	IAC-12.E1.9.1
Stoia-Djeska, Marius	A	IAC-12.C4.2.24
Stoia-Djeska, Marius	A	IAC-12.C1.8.13
Stoker, Carol	CA	IAC-12.A1.5.7
Stokes, Hedley	A	IAC-12.A6.3.2
Stokes, Hedley	CA	IAC-12.A6.4.3
Stokes, Hedley	CA	IAC-12.A6.5.4
Stokes, LeBarian	CA	IAC-12.C2.3.9
Stoll, Enrico	CA	IAC-12.B2.4.6
Stoltz, S.	CA	IAC-12.B3.3.12
Stone, Dennis	A	IAC-12.D2.1.5
Stone, William	CA	IAC-12.A5.1.6
Stone, William	CA	IAC-12.E6.2.1
Storozh, Alexandr	CA	IAC-12.B2.5.9
Straub, Jeremy	A	IAC-12.B4.3.5
Straub, Jeremy	A	IAC-12.A3.3A.6
Straus, Joe M.	A	IAC-12.YPVF.1.1
Strel'nikov, Genadiy	CA	IAC-12.C4.3.11
Strippoli, Luigi	CA	IAC-12.A6.5.5

Strobl, Peter	CA	IAC-12.B1.5.13
Stromberg, Jessica	CA	IAC-12.A3.3A.17
Stryzhak, Iurii	A	IAC-12.E8.1.2
Stube, Kevin	A	IAC-12.E6.4-D4.2.6
Stuffler, Timo	CA	IAC-12.A3.2B.5
Stuffler, Timo	CA	IAC-12.B4.6A.1
Stupl, Jan	A	IAC-12.A6.5.11
Stupl, Jan	CA	IAC-12.B4.6B.11
Stühler, Johannes	CA	IAC-12.A2.1.5
Su, Jinyuan	A	IAC-12.E7.1.18
Su, Zhe	CA	IAC-12.B2.6.14
Suatoni, Matteo	CA	IAC-12.C1.2.7
Subbarao, BV	CA	IAC-12.A6.1.9
Subbarao, SV	A	IAC-12.A6.1.9
Subbotin, Stanislav	CA	IAC-12.A2.2.19
Subrahmanian, Nagabushanam	CA	IAC-12.D5.1.3
Suedfeld, Peter	CA	IAC-12.A1.1.7
Suesser-Rechberger, Barbara	CA	IAC-12.B2.4.7
Sugenoya, Junichi	CA	IAC-12.A1.2.5
Sugimura, Nobuo	CA	IAC-12.D1.6.4
Suhui, Yang	CA	IAC-12.C3.3.14
Sukkarieh, Salah	CA	IAC-12.A3.3B.11
Sullivan, Patrick	CA	IAC-12.B6.1.10
Summerer, Leopold	A	IAC-12.C3.1.1
Summerer, Leopold	A	IAC-12.C3.1.8
Summerer, Leopold	A	IAC-12.D4.1.2
Summerer, Leopold	A	IAC-12.D3.4.5
Sun, Bing	CA	IAC-12.C2.3.15
Sun, Jiguo	CA	IAC-12.C4.1.3
Sun, Jun	CA	IAC-12.A3.2D.25
Sun, Nijuan	A	IAC-12.C2.8.2
Sun, Rong-Yu	A	IAC-12.A6.1.23
Sun, Zhaowei	CA	IAC-12.C1.2.4
Sundahl, Mark	A	IAC-12.E7.2.8
Sundaramoorthy, Prem	CA	IAC-12.D1.2.3
Sundaramoorthy, Prem	CA	IAC-12.E2.2.3
Sundaramoorthy, Prem	CA	IAC-12.B2.6.10
Sundblad, Patrik	CA	IAC-12.A1.1.24
Sundblad, Patrik	CA	IAC-12.B3.3.5
Sundblad, Patrik	CA	IAC-12.A1.8.2
Sundlisæter, Tale	A	IAC-12.E5.1.13
Surzhikov, Sergey	A	IAC-12.A3.3C.10
Sutherlun, Jacob	CA	IAC-12.B1.1.7
Sutherlun, Jacob	A	IAC-12.E3.2.2
Suto, Hiroshi	CA	IAC-12.B1.2.3
Sutton, Jeffrey	CA	IAC-12.A1.1.5
Sutton, Jeffrey	CA	IAC-12.A1.8.4
Suzic, Robert	CA	IAC-12.D5.2.4
Suzuki, Kentaro	CA	IAC-12.C4.4.26
Suzuki, Kojiro	CA	IAC-12.D2.3.3
Suzuki, Mineo	CA	IAC-12.C2.6.2
Svitek, Tomas	CA	IAC-12.A1.5.5
Svitek, Tomas	CA	IAC-12.B4.8.1
Swain, Ian	CA	IAC-12.A1.2.7
Swan, Peter	A	IAC-12.D4.3.1
Swan, Peter	CA	IAC-12.D4.3.4
Swan, Peter	A	IAC-12.D4.3.5
Sweeting, Martin	CA	IAC-12.B1.2.10
Sweeting, Martin	A	IAC-12.B4.4.6
Sweeting, Martin	CA	IAC-12.B4.6A.5
Sweeting, Martin	CA	IAC-12.B2.6.7
Sylvestre-Baron, Annick	A	IAC-12.B6.2.1
Syring, Constanze	A	IAC-12.C4.7-C3.5.8
Sysoev, Valentin K.	A	IAC-12.D4.4.7
Szajnfarber, Zoe	CA	IAC-12.D3.4.13
Szalai, Sandor	CA	IAC-12.D1.3.4
Szwarc, Timothy	A	IAC-12.A3.3A.14
Szwemin, Anna	CA	IAC-12.E3.4.5
Sánchez-Ortiz, Noelia	A	IAC-12.A6.2.4
Sánchez-Ortiz, Noelia	CA	IAC-12.A6.4.10
Sánchez-Torres, Antonio	CA	IAC-12.A6.4.7
Sánchez-Torres, Antonio	CA	IAC-12.A1.5.3
Söllner, Gerd	CA	IAC-12.B3.4-B6.5.1
Süssenbach, Luise	CA	IAC-12.A5.3-B3.6.1

T

Name	Role	Paper
T'ien, James	A	IAC-12.A2.2.2
T'ien, James	CA	IAC-12.A2.2.3
T.J., Durga Pushpavalli	CA	IAC-12.A3.3A.10
Tabache, Micheline	CA	IAC-12.A3.1.1
Tachibana, Shogo	CA	IAC-12.A3.4.6
Tachihara, Hiroshi	CA	IAC-12.E6.2.6
Tachikawa, Sumitaka	CA	IAC-12.C2.9.8
Taei, Hojjat	CA	IAC-12.D1.1.13
Tafferner, Arnold	CA	IAC-12.B5.1.8
Tafforin, Carole	A	IAC-12.A1.1.6
Tagawa, Makoto	A	IAC-12.A6.1.14
Tagawa, Masahito	CA	IAC-12.C2.6.8
Tahara, Hirokazu	CA	IAC-12.C4.6.3
Taheran, Mahsa	CA	IAC-12.A6.2.13
Taheran, Mahsa	A	IAC-12.E1.6.10
Taheran, Mahsa	CA	IAC-12.E1.9.8
Takada, Satoshi	CA	IAC-12.C2.6.2
Takagi, Ryuichi	A	IAC-12.C2.9.8
Takahashi, Akitoshi	A	IAC-12.D5.3.13
Takahashi, Hidenori	CA	IAC-12.D1.6.8
Takahashi, Koji	CA	IAC-12.C4.3.10
Takahashi, Koji	CA	IAC-12.C4.8.7
Takahashi, Takashi	CA	IAC-12.B2.4.3
Takahashi, Takashi	CA	IAC-12.B2.4.4
Takahashi, Tohru	A	IAC-12.E1.2.4
Takahashi, Yasuyuki	CA	IAC-12.B4.6A.2
Takama, Yoshiki	CA	IAC-12.D2.4.1
Takayama, Yoshihisa	CA	IAC-12.B2.2.8
Takegai, Tomoki	A	IAC-12.D1.4.8
Takegoshi, Masao	CA	IAC-12.C4.5.1
Takeichi, Tensei	CA	IAC-12.C4.3.10
Takemae, Toshiaki	A	IAC-12.E1.7.12
Takenaka, Hideki	A	IAC-12.B2.2.8
Tamas, Hickish	CA	IAC-12.A1.2.7
Tambini, Alessandro	CA	IAC-12.B4.7A.4
Tambini, Alessandro	A	IAC-12.C3.4.8
Tamborra, Vincenzo	CA	IAC-12.A3.3C.4
Tamburini, Alessandro	CA	IAC-12.C4.9.1
Tamilselvan, Rethika	A	IAC-12.B2.6.2
Tamura, Masami	CA	IAC-12.D5.2.9
Tan, Tianle	CA	IAC-12.E5.1.11
Tanabe, Yoshichika	CA	IAC-12.A5.4.9
Tanabe, Yuta	CA	IAC-12.A6.4.5
Tanaka, Hiroaki	A	IAC-12.C2.2.4
Tanaka, Keita	A	IAC-12.C1.6.8
Tanaka, Kohei	A	IAC-12.D1.3.2
Tanaka, Koji	A	IAC-12.C3.2.2
Tanaka, Masaki	CA	IAC-12.D1.4.8
Tanaka, Yoko	CA	IAC-12.D5.2.9
Tanaka, Yoshinobu	CA	IAC-12.C4.9.6
Tancredi, Urbano	CA	IAC-12.C1.3.4
Tang, Francois-David	CA	IAC-12.A2.3.2
Tang, Geshi	CA	IAC-12.B2.2.16
Tang, Geshi	CA	IAC-12.B2.5.12
Tang, Guojin	CA	IAC-12.A6.2.19
Tang, Guojin	CA	IAC-12.C1.8.3
Tang, Guojin	CA	IAC-12.C1.9.13
Tang, Jingshi	A	IAC-12.B1.5.10
Tang, Yi	CA	IAC-12.A2.7.10
Tang, Yi	A	IAC-12.B3.7.10
Tang, Yong	CA	IAC-12.B2.4.11
Tang, Yongan	A	IAC-12.C2.4.10
Tanghe, Thomas	A	IAC-12.E6.4-D4.2.5
Tanguy, Philippe	A	IAC-12.B1.2.2
TANI, Kouichiro	CA	IAC-12.D2.4.2
Tani, Yasuhiro	CA	IAC-12.C4.2.26
Tani, Yasuhiro	CA	IAC-12.C4.5.7
Tanigaki, Fumiaki	CA	IAC-12.E1.2.10
Tanishige, Kirin	A	IAC-12.E2.1.1
Tank, Jens	CA	IAC-12.A1.2.18
Tanner, Joseph	CA	IAC-12.E2.3.1
Tao, Ying	A	IAC-12.B2.4.12

Tariq, Fawad	A	IAC-12.C2.1.3
Tartaglia, Angelo	CA	IAC-12.B2.6.9
Tarter, Jill	CA	IAC-12.A4.1.3
Tata Nardini, Flavia	CA	IAC-12.C4.6.2
Tatarevskiy, Konstantin	CA	IAC-12.C1.1.10
Tatnall, Adrian RL	CA	IAC-12.D1.4.4
Tauber, Svantje	CA	IAC-12.A1.5.8
Tauber, Svantje	CA	IAC-12.A1.7.5
Taylor, David	CA	IAC-12.D2.8.5
Team, Quantus	CA	IAC-12.A2.1.9
Techavijit, Pirada	A	IAC-12.B1.1.11
Teeney, Leo	A	IAC-12.D2.7.7
Teichert, Sandra	A	IAC-12.E7.1.11
Teixeira, Adilson	A	IAC-12.A2.5.13
Telitschkin, Dimitri	CA	IAC-12.B4.6A.8
Tempesta, Stefano	CA	IAC-12.B6.1.5
Ten, Vladimir	CA	IAC-12.B4.4.13
Tenenbaum, Stepan	CA	IAC-12.B3.3.10
Teng, Teng	CA	IAC-12.A6.1.19
Teofilatto, Paolo	CA	IAC-12.A6.5.8
Teofilatto, Paolo	CA	IAC-12.C1.7.1
Terakura, Masato	CA	IAC-12.E2.3.8
Terlevich, Luca	CA	IAC-12.B2.1.11
Terribile, Antonio	CA	IAC-12.A3.3B.8
Terui, Fuyuto	CA	IAC-12.C1.2.11
Terukina, Isao	CA	IAC-12.C4.4.26
Teschl, Franz	A	IAC-12.B2.5.8
Teschl, Franz	A	IAC-12.B2.5.15
Teselkin, Sergey	CA	IAC-12.D2.2.11
Teselkin, Sergey	CA	IAC-12.E6.4-D4.2.4
Teselkin, Sergey	A	IAC-12.E7.5.14
Tesmer, Volker	CA	IAC-12.B1.2.7
Tesmer, Volker	CA	IAC-12.A6.6.9
Testani, Paride	A	IAC-12.C1.3.7
Testani, Paride	A	IAC-12.C1.8.6
Teule, Frits	A	IAC-12.B1.3.2
Tewari, Brij	A	IAC-12.A1.5.13
Thaeter, Joachim	CA	IAC-12.D3.1.2
Thakore, Tejal	CA	IAC-12.A6.5.27
Thakore, Tejal	A	IAC-12.A3.4.13
Thakore, Tejal	A	IAC-12.E1.7.15
Thaller, Michelle	CA	IAC-12.E1.2.11
Theil, Stephan	CA	IAC-12.C1.1.2
Thein, Min	CA	IAC-12.A3.5.5
Thepaut, Jean-Baptiste	A	IAC-12.A3.1.3
Theroude, Christophe	CA	IAC-12.A6.3.2
Thibault, Johanne	CA	IAC-12.E1.3.5
Thiel, Cora	CA	IAC-12.A1.7.5
Thiel, Cora S.	A	IAC-12.A1.5.8
Thiel, Karen	A	IAC-12.E4.3B.1
Thiele, Gerhard	A	IAC-12.A5.2.1
Thiele, Thomas	A	IAC-12.C2.1.10
Thieuw, Alain	CA	IAC-12.C1.8.8
Thimmaiah, Anirudh	A	IAC-12.C4.8.1
Thirkettle, Anthony	CA	IAC-12.D1.5.3
Thirsk, Robert	CA	IAC-12.A1.2.12
Thiébault, Benoît	CA	IAC-12.D5.3.14
Thoerig, David	CA	IAC-12.D2.3.8
Thoma, Markus	CA	IAC-12.A2.7.6
Thomas, Eric	CA	IAC-12.C1.8.2
Thomas, Frank	CA	IAC-12.C2.9.3
Thomas, Hubertus	CA	IAC-12.A2.7.6
Thomas, Josiah	A	IAC-12.C2.9.6
Thomas, Kelly	CA	IAC-12.B4.8.4
Thomas, Nicolas	CA	IAC-12.A3.4.10
Thomin, Stéphane	A	IAC-12.A2.1.4
Thonnard, Jean-Louis	CA	IAC-12.A1.8.2
Thrane, Eivin	CA	IAC-12.E1.3.11
Thronson, Harley	CA	IAC-12.D3.1.3
Thumm, Tracy	CA	IAC-12.B3.1.2
Thurber, Andrew	A	IAC-12.A6.3.8
Thuse, Anish	CA	IAC-12.E2.3.2
Tian, Hui	CA	IAC-12.C4.2.13
Tian, Hui	CA	IAC-12.C4.2.17
Tian, Hui	CA	IAC-12.C4.2.19
Tian, Hui	CA	IAC-12.C4.2.22
Tian, Liping	CA	IAC-12.B6.3.9
Tian, Zhengyu	CA	IAC-12.C2.8.13
Tibert, Gunnar	CA	IAC-12.A2.3.15
Tiefenbeck, Christoph	CA	IAC-12.C2.5.9
Tietz, Dale	CA	IAC-12.A5.1.6
Tietz, Dale	CA	IAC-12.E6.2.1
Tiezzi, Ferdinando	A	IAC-12.B2.2.4
Tikka, Tuomas	CA	IAC-12.B4.2.11
Tilmans, Etienne	CA	IAC-12.B4.3.1
Timbay, Ivan	CA	IAC-12.B2.5.9
Tingting, Ma	A	IAC-12.C2.7.18
Tinto, Amalia	CA	IAC-12.A1.1.19
Tipaldi, Massimo	CA	IAC-12.D1.6.10
Tippets, Roger	CA	IAC-12.A6.1.1
Tippets, Roger	CA	IAC-12.A6.1.2
Tippets, Roger	CA	IAC-12.E1.3.7
Tiragallo, Michele	CA	IAC-12.B6.2.4
Titomanlio, Daniele	A	IAC-12.A2.5.6
Titov, Dmitry M.	CA	IAC-12.C2.7.3
Titze, Jens	CA	IAC-12.A1.8.5
Tiwari, Ashish	CA	IAC-12.E7.1.20
Tiwari, Gopal	CA	IAC-12.E8.1.7
TK, Alex	CA	IAC-12.A3.2A.1
TK, Alex	CA	IAC-12.A3.2B.3
Tkachev, Stepan	CA	IAC-12.C1.9.12
TNV, Satyanarayana	CA	IAC-12.D2.2.14
Tobehn, Carsten	A	IAC-12.B4.4.1
Toda, Tomoaki	A	IAC-12.B2.1.6
Toivanen, Petri	CA	IAC-12.D4.1.4
Tokhunts, Arvid	CA	IAC-12.D2.6.11
Tokifuji, Tsutomu	CA	IAC-12.B4.3.6
Tokunaga, Tatsuru	CA	IAC-12.D2.5.5
Tokunaga, Tatsuru	CA	IAC-12.C4.6.1
Tolyarenko, Nikolai	CA	IAC-12.D2.4.16
Tomanek, Boguslaw	CA	IAC-12.A1.3.13
Tomasello, Filippo	CA	IAC-12.D6.1.10
Tomassini, Davide	CA	IAC-12.B5.1.7
Tomassini, Davide	CA	IAC-12.B5.1.8
Tomiki, Atsushi	CA	IAC-12.B2.3.1
Tomilovskaya, Elena	A	IAC-12.A1.8.3
Tomioka, Sadatake	CA	IAC-12.D2.4.2
Tomioka, Yoshihiro	CA	IAC-12.A6.4.5
Tomioka, Yoshihiro	CA	IAC-12.B4.7A.5
Tomioka, Yoshihiro	A	IAC-12.D1.6.4
Tommasi, Leonardo	CA	IAC-12.A3.5.16
Tommei, Giacomo	A	IAC-12.E1.2.7
Tommei, Giacomo	A	IAC-12.A3.5.4
Tomov, Borislav	CA	IAC-12.A1.4.4
Tomov, Borislav	CA	IAC-12.A1.4.9
Tonetti, Stefania	CA	IAC-12.C1.4.9
Topham, Ricardo	CA	IAC-12.E3.1.4
Topham, Ricardo	A	IAC-12.B1.5.5
Topham, Ricardo	CA	IAC-12.B1.5.8
Topputo, Francesco	A	IAC-12.C1.4.3
Topputo, Francesco	A	IAC-12.A3.4.18
Torelli, Sandro	CA	IAC-12.A5.3-B3.6.6
Torero, Jose	A	IAC-12.A2.2.2
Torero, Jose	CA	IAC-12.A2.2.3
Toriizuka, Takashi	CA	IAC-12.B3.2.8
Tornabene, Livio	CA	IAC-12.A5.3-B3.6.3
Tornabene, Livio	CA	IAC-12.B3.7.8
Torre, Andrea	CA	IAC-12.B1.3.9
Torre, Lucio	CA	IAC-12.C4.3.5
Tortora, Paolo	CA	IAC-12.B2.1.10
Tortora, Paolo	CA	IAC-12.C1.1.8
Tortora, Paolo	CA	IAC-12.B4.7A.4
Tortora, Paolo	CA	IAC-12.B4.5.10
Tortora, Paolo	CA	IAC-12.C3.4.8
Toschi, Stefania	CA	IAC-12.D1.1.12
Toschi, Stefania	A	IAC-12.E1.9.9
Tosh, Ian	CA	IAC-12.E6.2.11
Totani, Tsuyoshi	CA	IAC-12.C4.9.5
Totaro, Giovanni	A	IAC-12.C2.9.2
Toth, Balazs	A	IAC-12.A2.2.2

Toth, Joseph	CA	IAC-12.A6.1.21
Touboul, Pierre	CA	IAC-12.A2.1.1
Toure, Mahamane	CA	IAC-12.D6.1.3
Tourret, Damien	CA	IAC-12.A2.6.7
Toyoda, Kazuhiro	CA	IAC-12.D5.3.13
Toyoshima, Morio	CA	IAC-12.B2.2.8
Toyoshima, Morio	A	IAC-12.B2.4.3
Toyoshima, Morio	CA	IAC-12.B2.5.6
Tozer, Stuart	CA	IAC-12.E2.3.1
Tozer, Stuart	CA	IAC-12.E2.3.6
Traum, Jeremy M.	A	IAC-12.A5.3-B3.6.7
Trebi-Ollennu, Ashitey	CA	IAC-12.A3.3A.7
Tremblay, Alain	CA	IAC-12.A3.3A.17
Tremblay, Isabelle	A	IAC-12.D1.5.2
Trento, Rocco Raffaele	CA	IAC-12.C2.2.6
Trifoni, Eduardo	CA	IAC-12.C2.1.11
Trifoni, Eduardo	CA	IAC-12.C2.6.1
Trifoni, Eduardo	CA	IAC-12.A3.5.14
Trinh, Huu	CA	IAC-12.A3.2C.1
Tripoli, Michele	CA	IAC-12.B6.1.1
Tristancho, Joshua	A	IAC-12.B4.3.12
Trivedi, Nalin Babulau	CA	IAC-12.B4.1.5
Trivedi, Rohit	CA	IAC-12.A2.6.7
Troegeler, Mildred	CA	IAC-12.A5.2.1
Troiani, Enrico	CA	IAC-12.B4.7A.4
Troiano, Luigi	A	IAC-12.D1.6.10
Tronchetti, Fabio	A	IAC-12.E7.3.7
Trotti, Guillermo	CA	IAC-12.A1.6.7
Trotti, Guillermo	CA	IAC-12.A1.6.8
Trovatello, Marco	A	IAC-12.E1.6.7
Troznai, Gabor	CA	IAC-12.D1.3.4
Trudel, Guy	CA	IAC-12.A1.3.5
Trushlyakov, Valeriy	A	IAC-12.A6.5.25
Trushlyakov, Valery	CA	IAC-12.A6.5.8
Tsai, Tony	CA	IAC-12.B4.4.8
Tsuboi, Masanori	A	IAC-12.A5.4.9
Tsuchida, Akira	A	IAC-12.D4.3.3
Tsuchida, Akira	CA	IAC-12.C4.6.3
Tsuda, Yuichi	CA	IAC-12.D1.1.3
Tsuda, Yuichi	A	IAC-12.A3.4.5
Tsuda, Yuichi	CA	IAC-12.C1.9.8
Tsuji, Hiroyuki	A	IAC-12.B2.2.6
Tsuji, Hiroyuki	CA	IAC-12.B2.5.6
Tsujimoto, Takeshi	CA	IAC-12.C4.1.5
Tsukahara, Jun	CA	IAC-12.E2.3.8
TSURU, Kazunari	CA	IAC-12.C4.5.7
Tsygankov, Alexandr	CA	IAC-12.A1.6.2
Tsygankov.ru, Alexander	CA	IAC-12.A1.6.9
Tufts, Donald	CA	IAC-12.A1.6.6
Tului, Mario	A	IAC-12.C2.9.11
Tumino, Giorgio	A	IAC-12.D2.6.1
Turek, Krzysztof	CA	IAC-12.A1.3.13
Turetta, Alessio	CA	IAC-12.A5.3-B3.6.6
Turner, Sandra	CA	IAC-12.B5.1.8
Turrini, Donatella	CA	IAC-12.A3.2B.5
Tursic, Miha	A	IAC-12.E5.5A.5
Tyc, George	CA	IAC-12.E6.2.11
Tyson, Paul	CA	IAC-12.B5.2.9
Tziolas, Andreas	A	IAC-12.D1.1.1
Törnqvist, Marcus	CA	IAC-12.A2.3.4

U

Name	Role	Paper
U N, Vasantha kumari	CA	IAC-12.B6.2.13
Uchibori, Yasuhiro	CA	IAC-12.B4.6A.3
Udom, Innocent	A	IAC-12.D4.4.8
Ueda, Satoshi	A	IAC-12.C1.2.2
Ueda, Shuichi	A	IAC-12.C4.5.1
Ueno, Hiroshi	CA	IAC-12.A3.2D.28
Ueno, Ichiro	CA	IAC-12.A2.2.1
Ueno, Ichiro	CA	IAC-12.A2.4.11
Ueno, Ichiro	CA	IAC-12.A2.7.7
Ueno, Munetaka	A	IAC-12.A3.1.4
Uhlig, Thomas	A	IAC-12.B6.3.2
Ulamec, Stephan	CA	IAC-12.A3.4.2
Ulamec, Stephan	CA	IAC-12.A3.4.7
Ulamec, Stephan	CA	IAC-12.A3.4.9
Ullrich, Oliver	CA	IAC-12.A1.5.8
Ullrich, Oliver	A	IAC-12.A1.7.5
Uludağ, Mehmet Şevket	A	IAC-12.C3.4.9
Umit, Ertan	A	IAC-12.C3.4.9
Underwood, Craig	CA	IAC-12.B4.6B.3
Unterberger, Manuela	A	IAC-12.B2.2.1
Unterberger, Manuela	CA	IAC-12.B4.3.9
Uo, Masashi	CA	IAC-12.C1.2.11
Urban, David	A	IAC-12.A2.2.2
Urban, David	CA	IAC-12.A2.7.4
Urbanowicz, Maciej	CA	IAC-12.A6.4.6
Urbina, Diego	A	IAC-12.A1.1.1
Urbina, Diego	CA	IAC-12.A1.1.24
Urbina, Diego	A	IAC-12.E1.9.4
Ureña, Alejandro	CA	IAC-12.C2.8.7
Uruma, Osamu	CA	IAC-12.B4.6B.2
Uryu, Alexander Natsuya	A	IAC-12.C3.4.6
Usachev, Alexander	A	IAC-12.A2.1.12
Ushakov, Igor	A	IAC-12.A1.4.2
Uskov, Konstantin	CA	IAC-12.A1.3.4
Usui, Toshio	CA	IAC-12.E1.2.4
Utashima, Masayoshi	CA	IAC-12.D1.4.10
Utzmann, Jens	A	IAC-12.A6.2.8
Utzmann, Jens	CA	IAC-12.A6.7.7

V

Name	Role	Paper
V, Kesava Raju	CA	IAC-12.C1.9.11
V, Ramanaiah	A	IAC-12.D2.2.13
V, Ramanaiah	CA	IAC-12.D2.2.14
V, Seshagiri Rao	CA	IAC-12.A6.1.9
V, Seshagiri Rao	CA	IAC-12.D2.2.13
V, Seshagiri Rao	CA	IAC-12.D2.2.14
V, SeshagiriRao	CA	IAC-12.B1.5.14
v.d. Biezen, John	CA	IAC-12.D1.2.12
Vaccaro, Stefano	CA	IAC-12.B2.2.4
Vachon, Alexandre	A	IAC-12.C1.1.6
Vachon, Eric	CA	IAC-12.A3.3B.5
Vago, Jorge	CA	IAC-12.A1.5.1
Vaidialingam, Shivain	A	IAC-12.A6.4.12
Vakoch, Douglas	A	IAC-12.A4.2.5
Vakoch, Douglas	A	IAC-12.E5.4.9
Valdatta, Marcello	A	IAC-12.D1.1.12
Valdatta, Marcello	CA	IAC-12.E1.9.9
Valentian, Dominique	CA	IAC-12.E1.6.11
Valentian, Dominique	CA	IAC-12.C4.7-C3.5.3
Valenzano, Giuseppe	CA	IAC-12.D2.6.2
Valery, Platonov	CA	IAC-12.B3.2.5
Vallado, David	A	IAC-12.C1.6.12
Vallado, David	A	IAC-12.A6.6.11
Vallerani, Ernesto	A	IAC-12.D3.1.4
Vallerani, Ernesto	A	IAC-12.C2.2.1
Vallerani, Ernesto	A	IAC-12.E4.3A.2
Valli, Monica	A	IAC-12.C1.1.1
Valsecchi, Giovanni	CA	IAC-12.A3.4.17
van Achteren, Tanja	CA	IAC-12.B4.3.1
van Baarsen, Bernadette	A	IAC-12.A1.1.4
van Baarsen, Bernadette	A	IAC-12.B3.5.6
Van Broock, Lynn	CA	IAC-12.A5.1.1
Van de Loo, Mark	CA	IAC-12.B4.6B.8
van den Oever, Maarten	CA	IAC-12.D1.2.3
van den Putte, Wendy	CA	IAC-12.E1.1.3
van der Marel, Hans	CA	IAC-12.B5.2.9
van der Pligt, Joop	CA	IAC-12.A1.1.4
van der Veen, Egbert Jan	CA	IAC-12.A5.2.4
van der Veen, Egbert Jan	A	IAC-12.D3.4.9
van der Weg, Willem	A	IAC-12.C1.4.8
van der Weg, Willem	A	IAC-12.E2.3.3
van Diggelen, Jurriaan	CA	IAC-12.A1.1.23
van Dijn, Marijtje A. J.	CA	IAC-12.A1.1.4
Van Loon, Jack J.W.A.	CA	IAC-12.E1.1.3
van Loon, Jack J.W.A.	CA	IAC-12.A1.2.5
van Oijhuizen Galhego Rosa, Ana Cristina	A	IAC-12.E7.7-B3.8.11
Van Vaerenbergh, Stefa	CA	IAC-12.A2.2.21
Van Vaerenbergh, Stefa	CA	IAC-12.A2.6.5
Van Vaerenbergh, Stefan	A	IAC-12.A2.3.7
Van Vaerenbergh, Stefan	CA	IAC-12.A2.4.6
Van Vaerenbergh, Stefan	CA	IAC-12.A2.6.2
Vananti, Alessandro	CA	IAC-12.A6.1.16
Vanden Bussche, Simon	A	IAC-12.D5.1.4
Vangala, Saiteja	A	IAC-12.D5.3.12
Vaquerizo Gallego, Juan Angel	CA	IAC-12.D3.4.4
Varacalli, Giancarlo	CA	IAC-12.B1.2.8
Varchetta, Silvio	CA	IAC-12.B1.3.10
Varga, Denise	CA	IAC-12.B2.2.5
Vargas, Edgar	CA	IAC-12.B1.5.2
Varinois, Arnaud	CA	IAC-12.B6.2.1
Varnoteaux, Philippe	A	IAC-12.E4.1.2
Vasar, Eero	A	IAC-12.A1.2.24
Vasile, Massimiliano	CA	IAC-12.C3.1.3
Vasile, Massimiliano	A	IAC-12.C3.1.5
Vasile, Massimiliano	CA	IAC-12.A2.3.15
Vasile, Massimiliano	CA	IAC-12.B4.3.7
Vasile, Massimiliano	CA	IAC-12.C1.4.6
Vasile, Massimiliano	CA	IAC-12.C1.4.8
Vasile, Massimiliano	CA	IAC-12.C1.3.11
Vasile, Massimiliano	CA	IAC-12.C2.5.1
Vassalli, Carlo	CA	IAC-12.C2.4.1
Vassalli, Carlo	CA	IAC-12.C2.8.1
Vassalli, Carlo	CA	IAC-12.A3.3C.4
Vassalli, Carlo	CA	IAC-12.C2.9.9
Vasylieva, Galina	CA	IAC-12.A1.8.5
Vaudolon, Julien	A	IAC-12.E2.1.8
Vavouliotis, Antonios	CA	IAC-12.C2.4.18
Vavouliotis, Antonios	CA	IAC-12.C2.8.6
Vaïda, Pierre	CA	IAC-12.A1.2.1
Vecchione, Ludovico	CA	IAC-12.D2.3.7
Vecchione, Ludovico	CA	IAC-12.D2.4.1
Vecchione, Ludovico	CA	IAC-12.D2.4.15
Vedernikov, Andrei	A	IAC-12.A2.3.9
Veilleur, Vince	CA	IAC-12.D2.2.4
Veldhuyzen, Robert	A	IAC-12.D2.9-D6.2.6
Velidi, Gurunadh	CA	IAC-12.B2.1.5
Velidi, Gurunadh	CA	IAC-12.D4.1.7
Velidi, Gurunadh	CA	IAC-12.A3.3A.13
Velidi, Gurunadh	A	IAC-12.A1.4.19
Velidi, Gurunadh	CA	IAC-12.D2.5.9
Velidi, Gurunadh	CA	IAC-12.A3.5.13
Velidi, Gurunadh	CA	IAC-12.C2.7.9
Velidi, Gurunadh	CA	IAC-12.C2.7.11
Velidi, Gurunadh	CA	IAC-12.A5.4.13
Veljanovski, Tatjana	CA	IAC-12.B1.5.7
Velykyi, Ievgen	CA	IAC-12.A6.5.16
Venditti, Paolo	CA	IAC-12.B1.4.1
Vendittozzi, Cristian	CA	IAC-12.C2.4.16
Venkatapathy, Ethiraj	CA	IAC-12.A3.5.17
Venkitaraman, Srinivasan	CA	IAC-12.C2.1.12
Venkitaraman, Srinivasan	CA	IAC-12.C4.2.4
Venkitaraman, Srinivasan	CA	IAC-12.C4.2.15
Ventimiglia, Luca	A	IAC-12.C3.3.8
Ventskovskiy, Oleg	CA	IAC-12.D2.7.6
Ventskovskiy, Oleg	CA	IAC-12.C2.8.12
Ventskovsky, Oleg	CA	IAC-12.C4.6.10
Ventura-Gonzalez, Daniel	CA	IAC-12.A1.2.15
Venugopalan, Srinivasan	CA	IAC-12.C3.4.7
Veraksitš, Alar	A	IAC-12.A1.2.24
Verbano, Chiara	A	IAC-12.E5.1.2
Vercoutere, Wenonah	CA	IAC-12.A1.7.3
Verdier, Nicolas	CA	IAC-12.E1.9.1
Verga, Antonio	A	IAC-12.A2.3.4
Verga, Antonio	CA	IAC-12.A2.3.6
Verhoeven, Chris	CA	IAC-12.D1.2.3
Verhoeven, Chris	CA	IAC-12.B2.6.10
Verhoeven, Didier	A	IAC-12.D2.6.12
Verlan, Aleksandr A.	A	IAC-12.D4.4.7
Veshchunov, Victor	A	IAC-12.E7.5.7
Vetrisano, Massimo	CA	IAC-12.E2.3.3
Vetrisano, Massimo	A	IAC-12.C1.3.11
Viceira, Jose A.	A	IAC-12.A3.5.15
Vicente-Vivas, Esau	CA	IAC-12.B1.2.11
Vicinanza, Renato	CA	IAC-12.B3.4-B6.5.9
Vicini, Alessandro	CA	IAC-12.C4.4.24
Vidlak, Carissa	CA	IAC-12.E5.1.4
Vieira Neto, Ernesto	CA	IAC-12.A3.5.21
Vienken, Jörg	CA	IAC-12.A1.8.5
Viertel, York	CA	IAC-12.D2.2.10
Viikari, Lotta	A	IAC-12.E7.3.10
Viir, Ragnar	CA	IAC-12.A1.2.24
Vijayan Nandalan, Vijayan Nandalan	CA	IAC-12.C4.4.5
Vila, Jérôme	CA	IAC-12.D2.1.6
Vilhena de Moraes, Rodolpho	CA	IAC-12.E4.1.5
Villa, Alberto	CA	IAC-12.A4.1.8
Villadei, Walter	CA	IAC-12.A2.7.3
Villadei, Walter	A	IAC-12.E7.7-B3.8.5
Villatoro, Joel	CA	IAC-12.D1.2.9
Villedieu, Nadege	CA	IAC-12.C2.7.8
Vinai, Bruno	CA	IAC-12.A3.3A.3
Vinokhodova, Alla	CA	IAC-12.A1.1.7
Vinokhodova, Alla	A	IAC-12.A1.1.8
Vinokhodova, Alla	CA	IAC-12.B3.5.6
Viola, Nicole	CA	IAC-12.D3.1.4
Viola, Nicole	CA	IAC-12.D3.1.8
Viola, Nicole	CA	IAC-12.A5.4.3
Viola, Nicole	CA	IAC-12.D1.6.11
Viotto, Roberto	CA	IAC-12.C2.4.1
Virzo, Amalia	CA	IAC-12.A1.4.14
Viscio, Maria Antonietta	CA	IAC-12.D3.1.4
Viscio, Maria Antonietta	A	IAC-12.D3.1.8
Viscio, Maria Antonietta	A	IAC-12.A5.4.3
Visentin, Gianfranco	CA	IAC-12.B3.3.11
Visscher, Peter	A	IAC-12.A3.2C.6
Viswanathan, Ramachandran	CA	IAC-12.B2.4.2
Vitale, Antonio	CA	IAC-12.D2.6.9
Vittori, Arturo	CA	IAC-12.E5.4.2
Vittori, Roberto	CA	IAC-12.A1.3.1
Viviani, Antonio	A	IAC-12.A2.2.6
Viviani, Antonio	CA	IAC-12.D2.3.4
Viviani, Antonio	A	IAC-12.A2.4.4
Vjatkin, Aleksey	CA	IAC-12.A2.2.5
Vladimirov, Ivan	CA	IAC-12.A1.3.9
Vlahovic, Branislav	CA	IAC-12.C2.4.10
Vlahovic, Branislav	A	IAC-12.C2.8.4
Vlahovic, Gordana	A	IAC-12.E1.5.8
Voelker, Michelle	CA	IAC-12.A6.3.7
Voersmann, Peter	CA	IAC-12.A6.3.10
Voersmann, Peter	CA	IAC-12.A6.4.10
Voersmann, Peter	CA	IAC-12.A6.5.3
Vogel, Kaspar	CA	IAC-12.E5.3.8
Vogler, Andreas	A	IAC-12.E5.4.2
Voirin, Thomas	A	IAC-12.A6.7.3
Volpini, Fabrizio	CA	IAC-12.A3.3C.4
Volynskaya, Olga	A	IAC-12.E7.5.10
von der Dunk, Frans	A	IAC-12.E7.5.16
von der Dunk, Frans	A	IAC-12.D2.9-D6.2.3
von Kampen, Peter	CA	IAC-12.A2.5.8
Voradaki, Georgia	CA	IAC-12.A1.1.14
Vorontsov, Viktor A.	CA	IAC-12.A3.1.8
Vorontsov, Viktor A.	CA	IAC-12.A3.1.11
Vorontsov, Viktor A.	CA	IAC-12.D4.4.7
Voss, Daniela	CA	IAC-12.A2.3.6
Votta, Raffaele	CA	IAC-12.C4.3.4
Vrakking, Vincent	CA	IAC-12.E2.3.10
Vrancken, Davy	CA	IAC-12.B4.4.7
Vrolijk, Ademir	A	IAC-12.B4.1.11
Vrublevskis, John	A	IAC-12.A3.3B.12
Vrublevskis, John	A	IAC-12.A1.5.10
Vultaggio, Mario	CA	IAC-12.B2.6.6
Vászi, Tamás	CA	IAC-12.A5.2.6

W

Name	Role	Paper
Wabel, Peter	CA	IAC-12.A1.8.5
Wable, Yannick	CA	IAC-12.E5.2.7
Wagenbach, Susanne	CA	IAC-12.A3.4.7
Wagner, Axel	CA	IAC-12.A6.2.8
Wagner, Axel	CA	IAC-12.A6.7.7
Wagner, Bjoern	CA	IAC-12.E2.3.4
Wagner, Caroline	A	IAC-12.A2.3.2
Wagner, Mark	CA	IAC-12.A4.1.3
Wakabayashi, Sachiko	CA	IAC-12.A3.2D.15
Wakana, Himomitsu	CA	IAC-12.B2.5.6
Wakde, Pareen	CA	IAC-12.E2.3.2
Wakita, Masashi	CA	IAC-12.C4.9.5
Waldvogel, Christian	A	IAC-12.E5.5A.2
Waldvogel, Christian	CA	IAC-12.E5.5A.6
Walsh, Alex	A	IAC-12.C1.8.7
Walter, Nicolas	CA	IAC-12.A1.2.11
Walter, Nicolas	CA	IAC-12.A5.2.1
Walter, Ulrich	CA	IAC-12.A6.5.7
Walter, Ulrich	CA	IAC-12.B2.4.5
Walter, Ulrich	CA	IAC-12.B2.4.6
Waltham, Nicholas	A	IAC-12.E6.2.11
Wamsteker, Jasper	CA	IAC-12.E1.1.3
Wander, Alexandra	A	IAC-12.D1.4.9
Wang, Alian	CA	IAC-12.A3.3A.7
Wang, Angela	CA	IAC-12.A1.7.3
Wang, Chi	CA	IAC-12.A3.2A.6
Wang, Chi	CA	IAC-12.A3.2D.17
Wang, Dayi	CA	IAC-12.A3.2D.24
Wang, Feng-chun	CA	IAC-12.B2.1.15
Wang, Guoyu	A	IAC-12.E7.2.14
Wang, Hongbo	A	IAC-12.A6.1.23
Wang, Hui	CA	IAC-12.C2.7.15
Wang, Jian-Ping	CA	IAC-12.C4.6.13
Wang, Jihe	A	IAC-12.C1.1.4
Wang, Jingang	CA	IAC-12.B2.6.13
Wang, Junyi	CA	IAC-12.A2.3.15
Wang, Li	CA	IAC-12.C3.1.7
Wang, Lizhi	CA	IAC-12.E7.3.5
Wang, Mei	CA	IAC-12.B2.2.16
Wang, Min	CA	IAC-12.B2.3.11
Wang, Min	CA	IAC-12.B2.3.12
Wang, Min	A	IAC-12.B2.4.10
Wang, Moge	CA	IAC-12.C4.5.15
Wang, Peng hui	A	IAC-12.C2.3.18
Wang, Shuang-Feng	A	IAC-12.A2.4.12
Wang, Weibin	CA	IAC-12.C4.1.3
Wang, Weigang	A	IAC-12.B1.3.14
Wang, Xiang	CA	IAC-12.B3.7.10
Wang, Xiaochen	CA	IAC-12.D1.6.1
Wang, Xiaoliang	A	IAC-12.B2.6.14
Wang, Xiaoming	CA	IAC-12.A5.1.9
Wang, Xinsheng	CA	IAC-12.B4.6A.10
Wang, Yanlei	CA	IAC-12.B6.3.9
Wang, Yi	A	IAC-12.C1.8.12
Wang, Yuren	A	IAC-12.A2.2.11
Wang, Zhao	A	IAC-12.E7.1.22
Wang, Zhe	A	IAC-12.A3.2D.31
Wang, Zhugang	A	IAC-12.B2.1.12
Wang, Zonghao	A	IAC-12.C4.5.10
Ward, Charles	CA	IAC-12.A2.4.1
Wargo, Michael	CA	IAC-12.A3.1.5
Warmflash, David	CA	IAC-12.A1.5.5
Wasser, Kai	CA	IAC-12.A5.2.4
Watanabe, Kana	CA	IAC-12.B3.2.6
Watanabe, Kazutaka	A	IAC-12.B3.4-B6.5.7
Watanabe, Takumi	A	IAC-12.A2.2.12
Watanabe, Toshiyuki	CA	IAC-12.A1.3.3
Watt, Mark	CA	IAC-12.C1.8.4
Waxman, Benjamin	A	IAC-12.C4.2.14
Webb, Gerald	A	IAC-12.B4.5.13
Webber, Derek	A	IAC-12.B6.3.1
Webber, Derek	A	IAC-12.A5.2.5
Weber, Karl Ernst	CA	IAC-12.A6.3.3
Weber, Karl Ernst	CA	IAC-12.A6.3.4
Weber-Steinhaus, Luise	A	IAC-12.E3.4.4
Weeden, Brian	CA	IAC-12.C1.6.13
Weeks, Edythe	A	IAC-12.E1.5.14
Weger, Kristin	A	IAC-12.A1.1.16
Wei, Zhengzhe	A	IAC-12.D5.1.1
Wei-dong, Yu	CA	IAC-12.B1.2.13
Wei-kong, Qi	A	IAC-12.B1.2.13
Weibin, Peng	A	IAC-12.C2.5.11
Weigel, Annalisa	CA	IAC-12.B4.1.1
Weigel, Annalisa	CA	IAC-12.E3.2.10
Weigel, Annalisa	CA	IAC-12.E5.1.5
Weihs, Hendrik	A	IAC-12.D2.6.8
Weikert, Sven	CA	IAC-12.C1.1.7
Weiland, Stefan	CA	IAC-12.C2.7.1
Weiner, Brad R.	CA	IAC-12.C3.3.15
Weislogel, Mark	CA	IAC-12.A2.6.10
Weiß, André	A	IAC-12.C3.3.7
Weiss, Michele	CA	IAC-12.B5.2.4
Welch, Chris	A	IAC-12.E1.4.1
Welch, Chris	CA	IAC-12.D4.4.6
Wen, Zhang	A	IAC-12.C4.4.18
Wen-xing, Chen	CA	IAC-12.B1.3.13
Weng, Jingnong	CA	IAC-12.E1.4.8
Wenjie, Shan	A	IAC-12.E5.1.6
Wensink, Han	CA	IAC-12.B5.1.4
Wenxiong, Xi	A	IAC-12.C4.5.9
Werner, Markus	CA	IAC-12.B5.1.8
Werremeyer, Mark	A	IAC-12.A6.3.7
Werthimer, Dan	CA	IAC-12.A4.1.2
Werthimer, Dan	CA	IAC-12.A4.1.3
Wesely, Norbert	CA	IAC-12.E1.7.6
Wessling, Francis	CA	IAC-12.A2.2.9
Westall, Frances	A	IAC-12.A1.5.1
Westcott, Mark	CA	IAC-12.B2.1.10
White, Adam	A	IAC-12.A6.2.20
White, Adam	CA	IAC-12.A6.4.3
White, Carl	CA	IAC-12.A6.5.17
White, Frank	CA	IAC-12.E1.6.1
White, Lyle	CA	IAC-12.A3.3A.17
White, Olivier	CA	IAC-12.A1.2.11
Whitmer, Gary	A	IAC-12.D5.1.7
Wicht, Anthony	A	IAC-12.D3.4.13
Wickhusen, Kai	CA	IAC-12.A3.4.10
Widdowson, Caroline	A	IAC-12.C2.1.8
Wiedemann, Carsten	CA	IAC-12.A6.3.10
Wiedemann, Carsten	CA	IAC-12.A6.4.10
Wiedemann, Carsten	A	IAC-12.A6.5.3
Wiedemann, Carsten	CA	IAC-12.B4.8.8
Wiegand, Andreas	A	IAC-12.C1.1.7
Wiegand, Andreas	A	IAC-12.D1.3.8
Wiegand, Stefan	CA	IAC-12.C2.3.2
Wiegerink, Remco	CA	IAC-12.B4.6A.8
Wieling, Wolter	CA	IAC-12.C4.6.2
Wilhelm, Roland	CA	IAC-12.A3.3A.17
Wilhite, Alan	CA	IAC-12.D3.1.5
Wilhite, Alan	CA	IAC-12.D2.4.8
Wilhite, Alan	A	IAC-12.D3.2.3
Wilkie, W. Keats	CA	IAC-12.C4.3.2
Williams, Adam	CA	IAC-12.B6.3.8
Williams, Kenji	CA	IAC-12.E1.9.5
Williams, Maureen	A	IAC-12.E7.4.2
Williamson, Ray A.	A	IAC-12.E3.1.9
Williamson, Ray A.	A	IAC-12.E3.2.1
Willink Castro, Teodoro	A	IAC-12.B2.3.5
Willmann, Magali	CA	IAC-12.A1.1.22
Wilson, Daniell	A	IAC-12.A3.3C.6
Wilson, Marc W.	CA	IAC-12.C1.5.6
Winebarger, Amy	CA	IAC-12.D5.3.1
Winetraub, Yonatan	A	IAC-12.B4.8.6
Wing, Boswell	CA	IAC-12.A3.3A.17
Winglee, Robert	CA	IAC-12.E1.2.11
Winhard, Andreas Leonhard	A	IAC-12.E2.2.8
Winnitoy, Susan	A	IAC-12.C2.3.9
Winter, Othon	CA	IAC-12.E4.1.5
Winter, Othon	A	IAC-12.A3.4.15
Winter, Othon	CA	IAC-12.A3.5.21
Winter, Othon	CA	IAC-12.C1.7.10
Winterling, Laura	CA	IAC-12.B6.3.6
Winters, Helene	CA	IAC-12.A3.5.1
Winton, Alistair	CA	IAC-12.A3.3C.5
Wirth, Reinhardt	CA	IAC-12.A1.6.10
Wisse, Menko	A	IAC-12.D2.5.3
Witt, Rouven	CA	IAC-12.C3.4.6
Witte, Lars	CA	IAC-12.A3.4.7
Wittig, Manfred	CA	IAC-12.B2.3.6
Wittig, Manfred	A	IAC-12.B2.5.4
Wittig, Manfred	CA	IAC-12.B2.5.5
Wojtkowiak, Harald	CA	IAC-12.B4.3.2
Wolanski, Piotr	A	IAC-12.A6.4.6
Wolanski, Piotr	A	IAC-12.C4.8.3
Wolf, Alexander	A	IAC-12.B4.8.8
Wolf, Thomas	CA	IAC-12.D1.1.7
Won, Dae-Yeon	CA	IAC-12.C1.3.2
Wong, Brian	CA	IAC-12.A3.3A.17
Wong, Nathan	CA	IAC-12.D4.4.6
Woo, Hyounggwan	A	IAC-12.C3.2.5
Wood, Danielle	A	IAC-12.B4.1.1
Wood, Danielle	A	IAC-12.E5.1.5
Wood, Mark	CA	IAC-12.A3.2C.7
Wood, Scott	CA	IAC-12.A1.1.17
Wooster, Martin	CA	IAC-12.B4.4.3
Worms, Jean-Claude	CA	IAC-12.A1.2.11
Worms, Jean-Claude	CA	IAC-12.A5.2.1
Wrede, Britta	CA	IAC-12.A5.3-B3.6.1
Wrede, Sebastian	CA	IAC-12.A5.3-B3.6.1
Wright, Henry	CA	IAC-12.D2.8.9
Wu, An-Ming	A	IAC-12.A2.1.14
Wu, An-Ming	CA	IAC-12.B4.2.2
Wu, An-Ming	CA	IAC-12.B1.1.5
Wu, An-Ming	CA	IAC-12.B1.2.6
Wu, An-Ming	A	IAC-12.B1.4.9
Wu, Beibei	A	IAC-12.D1.3.9
Wu, Bin	CA	IAC-12.B6.3.9
Wu, Bin	CA	IAC-12.B4.3.3
Wu, Chivey	CA	IAC-12.C4.5.6
WU, Di	CA	IAC-12.A2.4.8
Wu, Ji	CA	IAC-12.A3.2A.6
Wu, Ji	CA	IAC-12.A3.2D.17
Wu, Jianjun	CA	IAC-12.C4.3.14
Wu, Jianjun	CA	IAC-12.C4.4.17
Wu, Jianjun	CA	IAC-12.C4.8.6
Wu, Jianjun	CA	IAC-12.C4.8.9
Wu, Jianjun	CA	IAC-12.C4.8.12
Wu, Jiantong	A	IAC-12.A5.1.9
Wu, Junfeng	A	IAC-12.C4.2.17
Wu, Junfeng	CA	IAC-12.C4.2.20
Wu, Shufan	CA	IAC-12.C1.8.2
Wu, Shunan	A	IAC-12.C1.2.4
Wu, Shunan	CA	IAC-12.C2.3.14
Wu, Weiren	CA	IAC-12.A3.2D.3
Wu, Weiren	A	IAC-12.A3.2D.24
Wu, Xiaofeng	CA	IAC-12.B4.2.9
Wu, Yu-xiang	CA	IAC-12.B2.1.15
Wu, Yunhua	CA	IAC-12.C1.8.4
Wu, Zhigang	A	IAC-12.C1.1.9
Wu, Zhigang	CA	IAC-12.C1.7.7
Wujek, Adam	CA	IAC-12.A2.3.15
Wunderlich, Rainer	A	IAC-12.A2.2.10

X

Name	Role	Paper
Xi, Pei	A	IAC-12.C2.7.25
Xia, Shengyong	A	IAC-12.C4.2.6
Xian, Feng	A	IAC-12.D2.2.12
Xiao, Size	A	IAC-12.B4.2.9
Xiao, Yongxuan	A	IAC-12.B2.4.11
Xiao, Yongxuan	CA	IAC-12.B2.5.14
Xiao, Yuan	CA	IAC-12.A2.4.12
Xiao Dong, Zhang	A	IAC-12.A5.3-B3.6.9
Xiao-Jing, Yu	A	IAC-12.C4.5.8
Xiao-ning, Wang	CA	IAC-12.B1.3.13
XiaoBing, Ma	CA	IAC-12.B3.7.10
Xiaoqiang, Ren	CA	IAC-12.C3.3.3
XiaoQun, Chen	A	IAC-12.B2.2.13
Xiaoting, Wang	A	IAC-12.B2.5.11
Xie, Jun	A	IAC-12.B2.6.13
Xingjian, Zhou	CA	IAC-12.B2.2.11
Xiong, Weiming	CA	IAC-12.B2.1.12
Xiuqing, Zhu	CA	IAC-12.B6.3.7
Xiyun, Hou	CA	IAC-12.A3.5.10
Xu, Hongyan	A	IAC-12.B2.3.12
Xu, Kanyan	CA	IAC-12.A1.4.11
Xu, Kanyan	A	IAC-12.A1.8.1
Xu, Ming	CA	IAC-12.C1.1.13
Xu, Ming	A	IAC-12.C1.7.5
Xu, Qibing	CA	IAC-12.B2.6.14
Xu, Rui	CA	IAC-12.A3.4.12
Xue, Rui	A	IAC-12.C4.5.12
Xue, Yong	CA	IAC-12.B2.4.11
Xue, Yong	A	IAC-12.B2.5.14
Xuewen, Chen	CA	IAC-12.B6.3.7

Y

Name	Role	Paper
Yadav, Rajesh	A	IAC-12.A3.3A.13
Yadav, Rajesh	A	IAC-12.D2.5.9
Yadav, Rajesh	CA	IAC-12.A3.5.13
Yadav, Rajesh	CA	IAC-12.C2.7.9
Yadav, Rajesh	A	IAC-12.C2.7.11
Yaglioglu, Burak	A	IAC-12.A6.6.9
Yagüe, Julia	A	IAC-12.B1.6.5
Yajima, Masanobu	CA	IAC-12.C3.2.4
Yamada, Kazuhiko	CA	IAC-12.E2.1.1
Yamada, Kazuhiko	A	IAC-12.D2.3.3
Yamada, Koji	CA	IAC-12.E2.3.8
Yamada, Tetsuya	A	IAC-12.C2.1.9
Yamagiwa, Yoshiki	CA	IAC-12.C4.9.6
Yamaguchi, Toshikazu	CA	IAC-12.C4.8.10
Yamaguchi, Toshikazu	A	IAC-12.C4.3.10
Yamaguchi, Toshikazu	A	IAC-12.C4.8.7
Yamakawa, Hiroshi	CA	IAC-12.C2.2.9
Yamakawa, Hiroshi	CA	IAC-12.C2.3.11
Yamakawa, Hiroshi	CA	IAC-12.C2.4.20
Yamakawa, Hiroshi	CA	IAC-12.C4.8.11
Yamakawa, Shiro	CA	IAC-12.B1.2.18
Yamamoto, Shota	CA	IAC-12.C2.3.10
Yamamoto, Shota	A	IAC-12.C2.5.5
Yamamoto, Takayuki	CA	IAC-12.D1.1.3
Yamamoto, Takayuki	A	IAC-12.D2.3.9
Yamamoto, Tokonatsu	CA	IAC-12.D5.3.10
Yamanishi, Nobuhiro	CA	IAC-12.D2.1.10
Yamashiro, Ryoma	A	IAC-12.C4.1.11
Yan, Changxiang	CA	IAC-12.B4.4.12
Yan, Zheng	CA	IAC-12.C4.3.14
Yanagihara, Yoshitaka	CA	IAC-12.A3.2D.28
Yanagisawa, Toshifumi	CA	IAC-12.A6.1.14
Yang, Biao	CA	IAC-12.A2.7.10
Yang, Chenghu	CA	IAC-12.C4.1.7
Yang, Chengwei	A	IAC-12.B2.2.17
Yang, Guang	CA	IAC-12.E5.1.11
Yang, Hong	CA	IAC-12.B3.1.8
Yang, Hui	CA	IAC-12.E7.3.5
Yang, Lihong	A	IAC-12.C2.7.15
Yang, Sheng-Sheng	CA	IAC-12.C2.6.10
Yang, Tong	A	IAC-12.B2.1.15
YANG, Wei	CA	IAC-12.C4.6.4
Yang, Wenbo	CA	IAC-12.B2.6.12
Yang, Yunjun	CA	IAC-12.C2.7.19
Yang, Zhi	CA	IAC-12.C1.7.5

Yang, Zhongdong	CA	IAC-12.B4.4.12
Yano, Hajime	CA	IAC-12.A3.4.6
Yano, Hajime	CA	IAC-12.A3.4.7
Yanova, Olga	CA	IAC-12.D2.5.7
Yao, Caogen	CA	IAC-12.C2.4.12
Yao, Feng	CA	IAC-12.C4.1.7
Yao, Zhi	CA	IAC-12.B6.3.9
Yarangga, Yan Pieter	CA	IAC-12.E5.2.10
Yaro, Hyelpamduwa	CA	IAC-12.B1.5.3
Yasaka, Tetsuo	CA	IAC-12.B4.6B.2
Yasnou, Viktar	A	IAC-12.A2.4.10
Yasuda, Mio	CA	IAC-12.E1.2.4
Yasuhisa, Oda	CA	IAC-12.C4.3.10
Yasuhisa, Oda	CA	IAC-12.C4.8.7
Yasutomi, Yoshinobu	CA	IAC-12.C4.1.5
Yates, John	A	IAC-12.E6.3.9
Yates, John	A	IAC-12.B5.2.2
Yazdani, Shabnam	A	IAC-12.B2.2.9
Yen, Albert	CA	IAC-12.A3.3A.7
Yeshitla, Samrawit	A	IAC-12.A1.4.8
Yevdokymov, Dmytro	A	IAC-12.A2.2.14
Yi, Angela	A	IAC-12.E4.3B.6
Yilmaz, Özgün	A	IAC-12.A6.1.17
Yilmaz, Özgün	CA	IAC-12.A6.6.9
Yim, Shing Yik	A	IAC-12.A5.1.10
Yim, Shing Yik	A	IAC-12.C1.7.13
Yin, Haining	CA	IAC-12.A3.3A.5
Yin, Pei	CA	IAC-12.C4.4.18
Yin, Zengshan	CA	IAC-12.B4.4.12
Yin, Zengshan	CA	IAC-12.C1.3.5
Yingling, Adam	CA	IAC-12.C2.5.4
Yoda, Shinichi	A	IAC-12.A2.2.1
Yoda, Shinichi	CA	IAC-12.A2.7.7
Yokota, Kumiko	A	IAC-12.C2.6.8
Yokoyama, Jin	CA	IAC-12.C2.4.22
Yokoyama, Tetsuro	CA	IAC-12.B3.1.5
Yoon, Hyosang	A	IAC-12.C1.9.2
Yoon, Seyoung	A	IAC-12.B4.2.4
Yoshida, Kazuya	CA	IAC-12.A6.4.5
Yoshida, Kazuya	CA	IAC-12.B4.7A.5
Yoshida, Kazuya	CA	IAC-12.D1.6.4
Yoshida, Makoto	A	IAC-12.D2.4.2
Yoshihara, Maki	A	IAC-12.E1.5.3
Yoshihara, Shoichi	CA	IAC-12.A3.2D.15
Yoshikawa, Makoto	CA	IAC-12.A3.4.5
Yoshimitsu, Tetsuo	A	IAC-12.E8.1.1
Yoshitomi, Susumu	A	IAC-12.E3.1.11
Yoshitomi, Susumu	A	IAC-12.B2.6.11
Yoshitomi, Susumu	A	IAC-12.E1.7.1
Young, Laurence R.	CA	IAC-12.A1.2.5
Younis, Marwan	CA	IAC-12.B1.2.11
Yousaf, Muhammad Salman	CA	IAC-12.B2.1.9
Yousuf, Rukhsana	CA	IAC-12.A1.7.3
Yu, Jia	A	IAC-12.C4.2.22
Yu, Jin	A	IAC-12.C2.4.19
Yu, Nanjia	CA	IAC-12.C4.2.13
Yu, Nanjia	CA	IAC-12.C4.2.17
Yu, Nanjia	CA	IAC-12.C4.2.19
Yu, Nanjia	CA	IAC-12.C4.2.20
Yu, Tianyi	A	IAC-12.A3.2D.25
Yu, Wen	A	IAC-12.B1.3.7
Yu, Zhengshi	CA	IAC-12.C1.3.6
Yu jun, Zhang	A	IAC-12.A6.5.6
Yuan, Dehu	A	IAC-12.B2.6.12
Yuan, Jianping	CA	IAC-12.A3.2B.8
Yuan, Jianping	CA	IAC-12.C1.4.5
Yuan, Jianping	CA	IAC-12.C2.3.17
Yubin, Xu	CA	IAC-12.B6.3.7
Yubin, Yu	A	IAC-12.D2.4.7
Yue, Hui	CA	IAC-12.A3.3A.15
Yue, Xiaokui	CA	IAC-12.B2.5.13
Yuhui, Zhao	A	IAC-12.A3.4.14
Yuhui, Zhao	A	IAC-12.A3.5.10
Yulin, Zhang	CA	IAC-12.B1.2.15
Yulin, Zhang	CA	IAC-12.B1.3.18
Yun, JiHo	CA	IAC-12.B4.6A.6
Yun, Jiwon	CA	IAC-12.B4.2.4
Yungher, Don	CA	IAC-12.A1.1.17
Yuqing, Liu	A	IAC-12.B6.3.7
Yusupova, Anna	A	IAC-12.A1.1.7
Yuzbashyan, Mariam	A	IAC-12.E7.1.8

Z

Name	Role	Paper
Zabihian, Ehsan	CA	IAC-12.D1.1.13
Zabori, Balazs	A	IAC-12.A1.4.16
Zabori, Balazs	A	IAC-12.C2.7.16
Zaccariotto, Mirco	A	IAC-12.C2.2.6
Zaccariotto, Mirco	A	IAC-12.C2.4.8
Zaccariotto, Mirco	CA	IAC-12.A3.3B.7
Zaccariotto, Mirco	CA	IAC-12.A3.3C.1
Zacny, Kris	CA	IAC-12.A3.2D.21
Zacny, Kris	CA	IAC-12.A5.1.4
Zacny, Kris	CA	IAC-12.A3.3A.14
Zadnik, Marjan	CA	IAC-12.E1.2.12
Zakharchuk, Yevgeniy	A	IAC-12.E3.4.10
Zampierin, Stefano	CA	IAC-12.C1.2.8
Zampierin, Stefano	A	IAC-12.A2.3.10
Zampierin, Stefano	A	IAC-12.C2.4.9
Zampierin, Stefano	CA	IAC-12.D3.2.9
Zampierin, Stefano	CA	IAC-12.C2.5.2
Zampognaro, Francesco	A	IAC-12.B2.3.7
Zandbergen, Barry	CA	IAC-12.B4.7B.5
Zandbergen, Barry	CA	IAC-12.C4.6.2
Zandonadi Jr., Durval	A	IAC-12.C2.3.8
Zange, Jochen	CA	IAC-12.A1.2.16
Zanini, Alba	CA	IAC-12.A1.4.13
Zank, Gary	CA	IAC-12.D5.3.2
Zannoni, Diego	A	IAC-12.E7.1.4
Zannoni, Marco	CA	IAC-12.B2.1.10
Zanta, Karina	CA	IAC-12.D1.6.5
Zanutto, Denis	A	IAC-12.A6.4.7
Zappoli, Bernard	CA	IAC-12.A2.4.2
Zarate, Gerardo	CA	IAC-12.A3.5.12
Zarb Adami, Kris	CA	IAC-12.A4.1.3
Zarka, Philippe	CA	IAC-12.A3.2C.8
Zarza, Rafael	CA	IAC-12.B1.4.3
Zayats, Olga	A	IAC-12.C3.2.7
Zaytseva, Elina	CA	IAC-12.E7.5.7
Zee, Robert E.	CA	IAC-12.C3.4.11
Zeidler, Conrad	CA	IAC-12.A5.2.4
Zeiner, Andreas	A	IAC-12.E2.3.4
Zekusic, Nikola	CA	IAC-12.B6.4.1
Zeleznyakov, Alexander	CA	IAC-12.A1.6.2
Zell, Daniel	A	IAC-12.C2.9.4
Zell, Martin	CA	IAC-12.A1.1.24
Zell, Martin	CA	IAC-12.B3.1.2
Zenchenko, Tatyana	CA	IAC-12.A1.2.23
Zender, Joe	A	IAC-12.B4.3.1
Zender, Joe	CA	IAC-12.D5.2.8
Zeng, Guoqiang	CA	IAC-12.D1.1.10
Zeng, Guoqiang	CA	IAC-12.C1.2.5
Zeng, Peng	CA	IAC-12.C4.2.19
Zeng, Peng	A	IAC-12.E2.3.5
Zeng, Xiaojin	CA	IAC-12.B2.4.11
Zeng, Xiaojin	CA	IAC-12.B2.5.14
Zeni, Luigi	CA	IAC-12.C2.6.7
Zepelewa, Anna	CA	IAC-12.E5.2.10
Zereik, Enrica	CA	IAC-12.A5.3-B3.6.6
Zervos, Vasilis	A	IAC-12.E3.1.3
Zervos, Vasilis	A	IAC-12.E3.3.12
Zervos, Vasilis	A	IAC-12.B2.5.3
Zhan, Huiling	CA	IAC-12.A3.2D.26
Zhan, Huiling	A	IAC-12.A3.2D.38
Zhang, Chunming	CA	IAC-12.B2.6.12
Zhang, Dahai	CA	IAC-12.C2.8.2
Zhang, Daixian	CA	IAC-12.C4.4.17
Zhang, Daixian	A	IAC-12.C4.8.6
Zhang, Daixian	A	IAC-12.C4.8.9
Zhang, Daixian	A	IAC-12.C4.8.12
Zhang, Guan-Lu	A	IAC-12.A1.1.17
Zhang, Hao	A	IAC-12.D1.3.7
Zhang, Hongliang	A	IAC-12.C2.3.14
Zhang, Lei	A	IAC-12.C2.6.10
Zhang, Liang	CA	IAC-12.C4.6.4
Zhang, Lixin	CA	IAC-12.B2.6.14
Zhang, Nan	A	IAC-12.C4.1.3
Zhang, Ping	CA	IAC-12.A6.3.16
Zhang, Pu	A	IAC-12.A2.4.9
Zhang, Renyong	A	IAC-12.A3.2D.20
Zhang, Rui	A	IAC-12.C4.4.17
Zhang, Rui	CA	IAC-12.C4.8.6
Zhang, Rui	CA	IAC-12.C4.8.9
Zhang, Rui	CA	IAC-12.C4.8.12
Zhang, Shujie	A	IAC-12.C2.2.2
Zhang, Wei	A	IAC-12.A6.1.23
Zhang, Wei	CA	IAC-12.A1.4.12
Zhang, Xiang	CA	IAC-12.B6.3.9
Zhang, Xiangmeng	CA	IAC-12.C2.3.14
Zhang, Xiaoxiang	A	IAC-12.A6.1.23
Zhang, Yao	CA	IAC-12.A6.1.19
Zhang, Yao	A	IAC-12.C2.3.1
Zhang, Yijing	A	IAC-12.B6.3.9
Zhang, Yonghe	CA	IAC-12.B4.4.12
Zhang, Yonghe	A	IAC-12.C1.3.5
Zhang, Yuhan	CA	IAC-12.C2.2.2
Zhang, Yulin	CA	IAC-12.C4.5.15
Zhang, Yuwei	A	IAC-12.C2.4.12
Zhao, Bin	A	IAC-12.D1.4.5
Zhao, Changyin	A	IAC-12.A6.1.23
Zhao, Haifeng	A	IAC-12.E7.7-B3.8.3
Zhao, Hua	CA	IAC-12.A3.2A.6
Zhao, Hua	A	IAC-12.A3.2D.17
Zhao, Lei	A	IAC-12.E1.5.7
Zhao, Qian	A	IAC-12.C1.9.13
Zhao, Renbin	A	IAC-12.A1.4.11
Zhao, Renbin	CA	IAC-12.A1.8.1
Zhao, Ting	CA	IAC-12.C4.1.7
Zhao, Yue	CA	IAC-12.A1.5.7
Zhao, Yue	CA	IAC-12.A5.3-B3.6.2
Zhao, Yun	A	IAC-12.E7.2.6
Zhaokui, Wang	CA	IAC-12.B1.2.15
Zhaokui, Wang	CA	IAC-12.B1.3.18
Zheng, Jianhua	CA	IAC-12.B2.2.17
Zheng, Jianhua	CA	IAC-12.C1.5.12
Zheng, Wei	CA	IAC-12.C3.3.3
Zheng, Yuquan	CA	IAC-12.B4.4.12
Zheng, Zhenzhen	CA	IAC-12.C1.3.5
Zhengju, LI	A	IAC-12.C2.3.13
Zhenguo, Wang	CA	IAC-12.C4.5.9
Zhenguo, Wang	CA	IAC-12.C4.6.11
Zhibing, Song	CA	IAC-12.C4.5.13
Zhiyong, Li	CA	IAC-12.C3.3.3
Zhou, Fei	A	IAC-12.D5.3.15
Zhou, HongLing	CA	IAC-12.C4.1.7
Zhou, Jianping	CA	IAC-12.B6.2.3
Zhou, Jianping	CA	IAC-12.C1.8.12
Zhou, Jin	CA	IAC-12.C4.5.14
Zhou, Kaixing	CA	IAC-12.B4.6A.10
Zhou, Lv	CA	IAC-12.B2.5.12
Zhou, Qiang	A	IAC-12.C2.9.10
Zhou, Weijiang	CA	IAC-12.A3.2D.26
Zhou, Weijiang	CA	IAC-12.A3.2D.38
Zhou, Weijiang	CA	IAC-12.C2.7.19
Zhou, Wenyan	CA	IAC-12.A3.2B.6
Zhou, Yang	CA	IAC-12.C2.2.2
Zhou, Zhicheng	CA	IAC-12.B2.3.12
Zhu, George.Z.H.	CA	IAC-12.C2.4.21
Zhu, Shengying	CA	IAC-12.C1.3.6
Zhu, Shengying	CA	IAC-12.A3.3C.9
Zhuang, Fengyuan	A	IAC-12.E8.1.6
Zhuang, Fengyuan	CA	IAC-12.A1.7.5
ZiChang, Liang	CA	IAC-12.A3.3A.15
Ziemke, Claas	A	IAC-12.B4.7A.2
Ziemke, Claas	A	IAC-12.D1.6.9
Zimmer, Aline	A	IAC-12.A5.4.6
Zimmerman, Jonah	A	IAC-12.C4.2.14
Zimmerman, Jonah	A	IAC-12.E6.1.3
Zimmermann, Gerhard	CA	IAC-12.A2.3.6
Zink, Manfred	CA	IAC-12.B4.7B.3
Zinner, Nicholas	CA	IAC-12.E2.3.1
Zirnheld, Marc	CA	IAC-12.E1.9.1
Zmijanovic, Vladeta	A	IAC-12.C4.3.1
Zolesi, Valfredo	CA	IAC-12.B3.3.9
Zolesi, Valfredo	CA	IAC-12.A2.6.8
Zolesi, Valfredo	CA	IAC-12.A1.7.11
Zolgikar, Srikanth	CA	IAC-12.B6.3.11
Zolotarev, Alexander	CA	IAC-12.B6.2.17
Zou, Guangping	CA	IAC-12.C2.7.15
Zou, Jianjun	CA	IAC-12.C4.5.10
Zowayed, Khalid	CA	IAC-12.B4.6A.6
Zubairu, Medinah	A	IAC-12.B1.4.16
Zuccaro, Sandra	A	IAC-12.E1.2.2
Zuev, Andrew	CA	IAC-12.A2.4.4
Zuiani, Federico	A	IAC-12.C1.4.6
Zuj, Kathryn	CA	IAC-12.A1.2.6
Zvezdin, Fedor	CA	IAC-12.A2.2.20

Notes

Notes

Notes

Notes

Notes

Notes

Introducing IAASS

www.iaass.org

INTERNATIONAL ASSOCIATION FOR THE ADVANCEMENT OF SPACE SAFETY

The International Association for the Advancement of Space Safety (IAASS, Legally established 16 April 2004 in the Netherlands, is a non-profit organisation dedicated to furthering international cooperation and scientific advancement in the field of space systems safety. In 2004 IAASS became a member of the International Astronautical Federation (IAF). In 2006 former US Senator John Glenn, first American to orbit, became Honorary Member of the IAASS. In 2010 IAASS was granted Observer status at the United Nations COPUOS (Committee on the Peaceful Uses of Space).

In accordance with the Association Charter, the IAASS membership is open to anyone having a professional interest in space safety. Members can be physical persons, corporations, agencies, universities, institutions, and other professional associations.

The Association exists to help shape and advance an international culture of space safety (technical, organizational and socio-political), which would contribute to make space missions, vehicles, stations, extraterrestrial habitats, equipment and payloads safer for the general public, ground personnel, crews and flight participants. The Association also pursues the safeguarding and sustainability of the on-orbit environment to allow unimpeded access to space by future generations.

Mission

Advancing space safety forms the foundation of our endeavour. Compared with the vastness of political, financial and intellectual resources that space programs require our forces are minute, truly a drop in the ocean. Nevertheless, we want to be that drop and indeed a catalyst drop. We are committed, through the dedication and knowledge of our members, to internationally advance space safety as parents are to their children, to help finally ensure that:

- No accident shall ever happen because the risk was badly measured or willingly underestimated.
- No accident shall ever happen because the necessary knowledge was not made available to others.
- No accident shall ever happen because of lack of management commitment and attention.
- No accident shall ever happen because lack of personal accountability makes people negligent.

Space Safety Magazine©

www.spacesafetymagazine.com

INTERNATIONAL ASTRONAUTICAL FEDERATION

IAF YOUNG PROFESSIONALS PROGRAMME

International Astronautical Federation's Workforce Development and Young Professionals Programme Announces:

"Evening with Industry"

Featuring distinguished speakers:

Mr. Vitaly A. Lopota
President, General Designer
S.P. Korolev Rocket and
Space Corporation - Energia

Ms. Joanne M. Maguire
Executive Vice President
Lockheed Martin
Space Systems Company

Date: October 2, 2012 (Tuesday)
Location: Mostra d' Oltremare, Room: Sala Ischia
Time: 1830-2030 (local time)

Preferential seating for young professionals

Limited general seating available

This event made possible through generous support from

LOCKHEED MARTIN

2013 Dnepropetrovsk

4th International Conference
Space Technologies: present and future

Under the aegis of IAA:

When: April 17-19, 2013
Where: Palace of Students, Dnepropetrovsk, Ukraine

BASIC SUBJECTS OF THE CONFERENCE:
Current and future space launch systems, their components and subsystems;
Current and future space satellite systems;
Future rocket engines and power propulsion systems;
Materials and technologies;
Space for humankind.

International Conference: "Space Technology: Present and Future" is a unique possibility to learn about prospective development of rocket and space technologies, space complexes and systems, to exchange experience with colleagues, to get useful contacts for further cooperation, as well as an unforgettable positive emotions.

Organized by:

Yuzhnoye State Design Office, Dnepropetrovsk

SE PA Yuzhny Machine Building Plant, Dnepropetrovsk

State Space Agency of Ukraine, Kiev

Ukrainian Regional Office of IAA

Dnepropetrovsk National University, Dnepropetrovsk

For any questions concerning participation please contact us:
E-mail: info@dpukrconfiaa.org; Phone: +38 (0562) 38-47-90; Fax: +38 (056) 770-01-25

Web-site: www.dpukrconfiaa.org

ACKNOWLEDGMENTS

Supporting local institutions:

REGIONE CAMPANIA

Provincia di Napoli

COMUNE DI NAPOLI

CAMERA DI COMMERCIO DI NAPOLI

In cooperation with:

CIRA

Polo High-Tech di Napoli Est

AIDAA

AIAD

AIPAS

In partnership with:

Ministero dell'Istruzione dell'Università e Ricerca

IAA · INTERNATIONAL ACADEMY OF ASTRONAUTICS

IISL

Other supporters:

MOSTRA D'OLTREMARE

Congress Sponsors:

asi agenzia spaziale italiana

FINMECCANICA

Official Media Sponsor

AVIATION WEEK

Supporting Media

SPACE NEWS

Spaceflight

AIR&COSMOS

Space Safety Magazine

SES
your satellite company

Where opportunities grow via satellite

Where others see challenges, we see possibilities. At SES we do more than transcend physical barriers. We are committed to building relationships that help you reach new markets. Unlock and grow new opportunities with us.

www.ses.com