



Programme

2 - 4 May





Credit: ESA/NASA

The International Space Station with the docked Europe's ATV *Johannes Kepler* and Space Shuttle *Endeavour*, taken by ESA astronaut Paolo Nespoli from the Soyuz TMA-20 following its undocking on 24 May 2011

Welcome to the ISS Symposium 2012

More than ten years ago, the first module of the International Space Station (ISS) began offering scientists a unique research laboratory in space.

Now that we have permanent access to a fully assembled and operational ISS, the time has come to gather here in Berlin to not only celebrate this exemplary international cooperation and partnership in space, but also the key accomplishments in ISS research made to date. Together with all our partners, we have learned how to successfully work side by side, and the orbital outpost continues to be a positive example of team work at its best.

During the 36 times that the Station will be orbiting the Earth throughout the three-day Symposium, we will have the opportunity to look at case-studies in fundamental and applied research and the actual or potential spin-offs for the benefit of humankind, as well as to discuss the future path and priorities for research on ISS.

Maximising scientific and technological return on our investment in the ISS shall be one of the main priorities in the coming years. Providing a reliable gateway and access to the Station another, in order to guarantee and maximise the best scientific return from the ISS for at least another decade, and last but not least look at ways in which we can best utilise the Station as a stepping stone for preparing for future human exploration missions beyond LEO.

For planet Earth and our journey beyond, let's keep researching to better understand our world, utilise and explore space.



Thomas Reiter

ESA Director of Human Spaceflight and Operations



Credit: ESA/NASA

Berlin, March 19, 2011 photographed by ESA astronaut Paolo Nespoli during the MagISStra mission

Day 1 – Wednesday 2 May

11:00 Registration

13:15 Countdown

- Introduction with multimedia presentation
U. Bobinger, Moderator

13:30 Opening Session

- Welcome address
J-J. Dordain (ESA Director General)
J-D. Wörner (CEO DLR)

14:10 Opening Session

- Welcome address
P. Rösler, Federal Minister of Economics and Technology, Federal Chairman of the FDP and Vice-chancellor of Germany

14:20 Agencies Leaders' Roundtable

- Research on ISS for the benefit of mankind
- ISS as a stepping stone for Human Exploration
M. Uhlan (ISS Director, NASA)
A. Krasnov (Director of Human Space Flight Programme Department, Roscosmos)
T. Iwasa (Director, Office for Space Utilisation Promotion, MEXT)
and K. Higuchi (Vice President JAXA)
G. Leclerc (Director General for Space Exploration, CSA)
J-J. Dordain (ESA Director General)

15:45 Remarks by a European Politician

- Europe's decision to participate in the ISS and the importance of research in difficult times
H. Riesenhuber (former German Minister for Research and Technology)

16:00 Coffee break

+ interview opportunity for media

16:30 ISS Utilisation Programme

- Research Overview of ISS Partnership
J. Robinson
(ISS Programme Scientist, NASA)

17:00 ISS Research Highlights

- The Alpha Magnetic Spectrometer Experiment on ISS -
An endeavour for a Global Research Collaboration
S. Schael (Professor for Experimental Physics, RWTH Aachen University)

18:00 ISS Inspirations

- Living and Working in Space
S. Krikalev (Head of GCTC)

18:15 End 1st Day Programme

19:30 Formal Reception/ Dinner

Day 2 – Thursday 3 May

09:00 Opening incl. introduction to Exhibition

- A world without gravity – research on ISS for the benefit of life on Earth

T. Reiter (ESA Director of Human Spaceflight and Operations)

09:15 Multimedia Presentation

- Message from ISS / PromISSE Mission video

Moderator

09:25 Complex Fluids

- From Plasma Research on the ISS to Applications on Earth

G. Morfill (Director of the Max Planck Institute for Extraterrestrial Physics)

10:00 Advanced Materials Research

- Materials research in space and industrial R&D practice

R. Guntlin (Managing Director, Access)

10:35 Fundamental Physics

- High precision space clocks and quantum physics

C. Salomon (Research Director, CNRS)

11:10 Coffee break

11:40 Physical Research in Space and on Ground

- Research for New Materials and Energy Challenges of tomorrow

Roundtable Chair:

M. Cruise (ESA-PSWG Chair)

H. Fecht, D. Jarvis, C. Gehin-Delval,

K. Nishino, M. Uhran, J. Banhart

12:35 Lunch break

13:45 Biotechnology Research

- Biotechnology in space

M. Hughes-Fulford, Scientific Advisor to the Undersecretary of the Department of Veterans Affairs and Professor at the University of California, San Francisco

14:20 Human Research & Space Medicine

- Human Research in Space for life on Earth and future Exploration

A. Choukèr Senior Physician and Associate Professor at the Dept. of Anaesthesiology, Lecturer at the Ludwig-Maximilians-University of Munich

15:05 Life Sciences in Space and Health on Earth

- Integrated Human Research for Benefits on Earth and for Exploration

Roundtable Chair: **R. Gerzer (Head of DLR Institute of Aerospace Medicine)**

Ch. Mukai, M. Barratt, P. Suedfeld,

H. Kuppe, B. Morukov

15:55 Coffee break

16:25 Earth Observation and Climate Change

- Earth and Atmosphere Monitoring from ISS

R. Sato (Manager of Sensor Technology Office of Earth Observation Research Center, JAXA)

Day 3 – Friday 4 May

16:50 Space Science and Technology

- Long-term Space Monitoring and Materials Exposure

Roundtable Chair:

W. Abdalati (Chief Scientist, NASA)

P. Ehrenfreund, J. Robinson, M. Matsuoka, G. Schmidtke, B. Zagreev, T. Neubert

17:50 ISS Research Outlook

- The Importance for Research on ISS – a Perspective from the US National Academies Decadal Survey
E. Cantwell, (Chair of NRC Decadal Survey)

18:20 Day 2 Conclusions

- ISS Research Accomplishments
W. Abdalati (Chief Scientist, NASA)

18:50 End 2nd Day Programme

20:00 Dinner (River Cruise)

09:00 Introduction Day 3

Moderator

09:15 Future Key Research Challenges on ISS

- NASA's Research Priorities on ISS
M. Uhran (ISS Director, NASA)
- JAXA's ISS Utilisation Strategy
M. Asashima (AIST/Japan)
- Russia's ISS Research Programme
G. Karabadzhak (TsNIIMash/Russia)
- Canadian ISS Research Priorities
N. Buckley (Chief Scientist, ISS and Life Sciences, CSA)
- European ISS Research Strategy
C. Fuglesang (Head of Science and Application Division, ESA)

10:30 Human Exploration

- Use of ISS for Human Exploration in LEO and beyond
C. Bolden (NASA Administrator)

11:00 Future ISS Perspectives

- ISS and beyond: What is in there for you?
B. Feuerbacher (ESA-HESAC Chair)

11:30

- The ISS and ESA's future Science and Technology
M. Longair (ESA-HISPAC Chair)

11:45 Symposium Closing Session

- Future Perspectives and Closing remarks
T. Reiter (D/HSO, ESA)

12:00 Press Conference

J-J. Dordain, C. Bolden, A. Krasnov, K. Higuchi, G. Leclerc

12:30 Business Buffet and End of Symposium



Credit: ESA/NASA

ESA astronaut André Kuipers ingressing the International Space Station, 23 December 2011



Uli Bobinger
*Space journalist, TV
producer and moderator*

Uli Bobinger is working as a space journalist, TV producer and moderator since the early 90's. His features and live-reports have been broadcasted by German nationwide TV channels as SAT.1, n-tv and Deutsche Welle tv. Moreover, Uli Bobinger is worldwide a constant guest as a moderator in international podium discussions concerning space topics.



Philipp Rösler
*Federal Minister of
Economics and Technology,
Federal Chairman of the
FDP and Vice-chancellor of
Germany since May 2011*

In 2003, Mr. Rösler was elected to the state parliament of Lower Saxony and remained a member of this parliament and chairman of the FDP state parliamentary group until 2009. At the beginning of 2009, he was appointed Minister of Economics, Labour and Transport and Deputy Minister-President of the state of Lower Saxony. In October 2009 he joined the Federal Government as Federal Minister of Health.



Jean-Jacques Dordain
ESA Director General

Since July 2003, having been reappointed twice. Prior to becoming the Director General, Mr Dordain served first as ESA's Director for Strategy and Technical Assessment and then Director of Launchers. He joined ESA initially in 1986 as Head of ESA's Microgravity and Space Station Utilisation Department.



Johann-Dietrich Wörner
CEO DLR

Chairman of the Executive Board of the German Aerospace Center since March 2007. Prof. Wörner is a member of the board of École Centrale Paris and École Centrale Lyon, the Convention for Technical Sciences (acatech) and the supervisory board of Röhm GmbH, among others.



Mark L. Uhran
ISS Director, NASA

He has been a leader in evaluating practical applications of orbital space stations since 1984. Since that time, he has traveled worldwide developing strategies for use of the International Space Station.

Mr. Uhran received a Bachelor of Science degree from Cornell University (1976), a Master of Science degree from the University of Maryland (1987), a Master of Public Administration degree from Harvard University (1998), and is an Associate Fellow of the American Institute of Aeronautics and Astronautics.



Alexey Borisovich Krasnov
*Director of Human Space Flight Programme
Department, Roscosmos*

In 1993-2000 Mr. Krasnov worked under the “MIR” program. He was the head of the Russian team to set up the Roscosmos’ participation in ISS Program and other international projects with NASA, ESA, JAXA, and ISRO. At present time, he is a member of several ISS Control Boards, including Multilateral Coordination Board and Space Station Control Board. Mr. Krasnov is the Manager of ISS Program for Russia (from 2004). Member of Academy of Cosmonautics named after K.E.T. Iolokovsky and International Academy of Astronautics (France).



Takaaki Iwasa
*Director, Office for Space Utilization Promotion,
Ministry of Education,
Culture, Sports, Science and
Technology Japan (MEXT).*

He majored in non-formal education at Dept. of Education, University of Tokyo. He joined the Ministry of Education, Science, Sports and Culture in 1991 and held several posts, including the director of the anti-doping promotion office, the director of non-formal education division, Board of Education in Kumamoto Prefecture. He has also worked for the liaison office of the Japan Society for Promotion of Science in London and Stockholm and for the Embassy of Japan in Beijing.



Kiyoshi Higuchi
Vice President, JAXA

He joined the National Space Development Agency of Japan (NASDA) in 1969, and engaged in system design of H-1 launch vehicle, the planning of overall research and the planning of Japan’s participation in the International Space Station (ISS) program. In 2003, he was appointed as the Executive Director of JAXA, responsible for Strategic Planning and Lunar and Planetary Exploration Program. From 2010, he has been appointed as the Vice President of JAXA.



Gilles Leclerc
*Director General for Space
Exploration, CSA*

Joined the Canadian Space Agency in 1989 where he occupied the positions of Project Engineer, Director of Technology Management and Applications, and Director General for Space Technologies. From 1997 to 2000, he was posted at the Canadian Embassy in Paris as Counsellor for Science, Technology and Space Affairs. In 2010, he became the first Director General for Space Exploration at the Canadian Space Agency. This organization regroups the International Space Station, astronomy and planetary missions, robotics, human space flight and life sciences programs.



Julie Robinson
*ISS Programme Scientist,
NASA*

Dr. Julie A. Robinson is the Program Scientist for the International Space Station (ISS) for the National Aeronautics and Space Administration (NASA). She serves as the chief scientist for the ISS Program and chairs the ISS Program Science Forum, made up of the senior scientists for each of the space agencies in the ISS international partnership. She has an interdisciplinary background in the physical and biological sciences. She has authored over 50 scientific publications.



Heinz Riesenhuber
*Member of Parliament,
former Federal Minister
for Research and
Technology*

Prof. Dr. Heinz Riesenhuber has been Member of the Federal German Parliament (Bundestag) since 1976 and became Father of The House in 2009. He served as Federal Minister for Research and Technology from 1982 until 1993. Since 1993 he has been a member of the Bundestag Committee on Economics and Technology. He is Honorary Professor of the University of Frankfurt, President of the German Parliamentary Society and member of several Advisory Panels and Supervisory Boards.



Stefan Schael
*Professor for
Experimental Physics,
RWTH Aachen*

Stefan Schael works as Professor for Experimental Physics at RWTH Aachen University since 2000. The focus of his work is the link between accelerator and space experiments to explore the nature of dark matter. For the AMS project, he coordinates the German contributions and was responsible for the construction of the transition radiation detector. He also played a leading role in the development of the silicon tracker for the CMS experiment at CERN, near Geneva.



Sergey Krikalev
Head of GCTC

Performed six space missions. Undisputed record-holder for the total spaceflight duration. He is a Fellow of Russian Academy of Cosmonautics named after K.E. Tsiolkovsky. Since August 2007 till 2009 Mr. Krikalev functioned as Deputy Chief designer of Russian Space Corporation-Energy. Head of State organization “Gagarin Research & Test Cosmonaut Training Center” since March 2009.



Thomas Reiter
ESA Director of Human Spaceflight and Operations, Head of ESOC in Darmstadt, Germany

As an European astronaut, he flew as Flight Engineer on the ESA/Russian EuroMir '95 mission to the Mir space station in 1995, spending a record 179 days in space. In 2006, he flew on the Astrolab mission, ESA's first long-duration mission to the ISS. After his active astronaut career, he was named on 1 October 2007 a member of the DLR Executive Board responsible for Space Research and Technology.



Gregor Morfill
Director of the Max Planck Institute for Extraterrestrial Physics since 1984

Received a B.Sc. degree in physics and a Ph.D. degree in space plasma physics from Imperial College, London Univ. in 1967 and 1970 respectively. The Honorary Doctorate degree from the Technical Univ. of Berlin was awarded in 2003. He also holds honorary Professorships at the Univ. of Leeds, U.K. and the Univ. of Arizona. He is a foreign member of the Russian Academy of Sciences and the recipient of a number of important prizes including Patten Prize, Bavarian Innovation Prize and the Maxwell Prize of the American Physical Society.



Robert Guntlin
Managing Director, Access

First trained in Business Administration and was working for a large American Company in the US and Europe. Later he studied electronic engineering in Aachen and in 1987 became Managing Director of Access, a private research and development centre (a known technology and software provider) located at Aachen University. In a unique approach he bridges fundamental research in materials science using micro gravity as one platform to fully understand the mechanisms of solidification of metals with today's requirements of high end castings for the aeronautic and automotive sector.



Christophe Salomon
Research Director, CNRS

Dr. Christophe Salomon works on quantum gases and ultrastable clocks in Laboratoire Kastler Brossel, at Ecole Normale Supérieure in Paris, France. As a Research Director at CNRS, he is Head of the cold Fermi gas group at ENS and Principal Investigator for the ACES/PHARAO space clock Mission of ESA. His research interests range from superfluidity in quantum gases to high precision measurements and fundamental physics tests with space clocks. He has authored 180 publications and received six national or international awards.



Mike Cruise
ESA-PSWG Chair

Mike Cruise is Professor of Astrophysics and Space Research at the University of Birmingham in the UK. He has over 120 publications on space science and is an author of a textbook on the design of space instrumentation. Mike is the Chair of Commission H (Fundamental Physics) in Cospar and Chair of the ESA Physical Sciences Working Group. He has worked on space projects from Ariel VI, HIPPARCOS, SOHO and Cluster to LISA Pathfinder.



Hans Fecht
*Chaired Professor and
Director of the Institute
of Micro and
Nanomaterials at
University of Ulm*

After receiving his PhD in 1984 he spent about 6 years in the US (Madison-Wisconsin, Caltech) and has been awarded several professorships in Germany (Augsburg, Berlin, Karlsruhe, Ulm). He received the prestigious G.W. Leibniz award and has a 25-year-history in micro-g research on liquid processing on ground and in space (drop tubes, space shuttle, MIR, PFs, TEXUS and in the future ISS).



David John Jarvis
*Head of New Materials
& Energy Research, ESA*

His team currently runs a 100 M€ portfolio of international R&D projects in the fields of alloy development, physical metallurgy, advanced net-shape manufacturing, energy devices, nanotechnology and microgravity experimentation. He has been working at ESA for over 10 years, mainly in the area of materials science and engineering, and prior to that he worked at BMW Research in Munich, Germany. In addition, he holds a Honorary Chaired Professorship at Swansea University, UK.



Cécile Gehin-Delval
*Research Scientist,
Nestlé Research Center*

Cécile Gehin-Delval obtained her PhD in physical chemistry at the University of Besançon in France. Her PhD was dealing with electrorheological fluids and their use as optical waveguides. She spent 2 years at the University of Geneva studying the aggregation of particles using light scattering techniques. She then joined the Nestlé Research Center as Research Scientist to study colloids such as emulsions and foams. She's married and has 2 little boys.



Koichi Nishino
*Professor of the
Department of
Mechanical
Engineering, Yokohama
National University*

His research interests cover turbulence, thermocapillary convection and its instability, convective heat transfer and flow measurement. He is currently a principal investigator of Marangoni Experiment in Space (MEIS), which has been conducted in Japanese Experiment Module 'KIBO' since 2008. A total of four series of experiments have been conducted to reveal instability mechanisms of thermocapillary convection in large liquid bridges.



John Banhart
*Professor at the
Technical University of
Berlin, Germany*

2002 to present - Head of the Department of Engineering Materials at the Hahn-Meitner-Institute (now Helmholtz-Centre Berlin).
1989 - PhD in Physical Chemistry at the University of Munich, Germany.
1986 - Research visit to the University of Vienna and Technical University of Vienna, Austria.
1984 - Diploma in Physics at the University of Munich, Germany.



Millie Hughes-Fulford
*Scientific Advisor to the
Undersecretary of the
Department of
Veterans Affairs and
Professor at the
University of California, San Francisco*

Dr. Hughes-Fulford is the Principal Investigator of an upcoming International Space Station immunology study examining the activation of T cells in spaceflight. Millie served as an astronaut on NASA's first dedicated medical mission, STS-40. As Director of the Hughes-Fulford Laboratory, she continues her earthbound studies of regulation of bone regeneration using stem cells and new innovations for regulation of T cell activation.



Alexander Choukèr

Senior Physician and Associate Professor at the Dept. of Anaesthesiology, Lecturer at the Ludwig-Maximilians-University (LMU) of Munich

Science Team Coordinator of ESA & DLR funded studies to investigate Stress-Immune interactions on Earth and on ISS. ESA-LSWG Chair, Coordinator of the ESA Topical Team “Stress Challenges and Immunity in Space”. Since 2005: National Institute of Allergy Infectious Disease (NIAID), “special volunteer” at Lab. of Immunology at the Nat. Institutes of Health (NIH). Senior house officer at the Dept. of Anaesthesiology, LMU (2004). John E. Fogarty research award fellow at NIAID, Lab. of Immunology, NIH.



Rupert Gerzer

Head of DLR Institute of Aerospace Medicine, Cologne, Germany

He is Trustee to the International Academy of Astronautics since 2003, is Co-Editor of Acta Astronautica, member of the Advisory Board on Research under Microgravity Conditions to the German Aerospace Center, member of the Swedish National Space Board, Chairman of the Science Council of the City of Cologne and Head of the University Council of the University of Applied Sciences Bonn-Rhine-Sieg.



Chiaki Mukai

JAXA astronaut and Vice Director for the Human Space System and Utilization Mission Directorate

Dr. Chiaki Mukai is a JAXA astronaut of two Space Shuttle flights: the Second International Microgravity Laboratory mission (STS-65) in July 1994 and STS-95 with US Senator John Glenn in October 1998. Spent more than 566 hours in space. The first Japanese woman to fly in space and also the first Japanese astronaut to fly twice in space. She promotes space utilization.



Michael R. Barratt

Physician astronaut and Manager NASA Human Research Programme

Specialized in internal and aerospace medicine. Experience as NASA flight surgeon and project physician, Space Shuttle and ISS mission support; US-Russian Mir/Shuttle program support. Flight engineer on Soyuz TMA-14, ISS Expeditions 19 – 20. Mission specialist Shuttle flight STS-133. Associate editor for space medicine, Aviation, Space, and Environmental Medicine. Senior editor for text “Principles of Clinical Medicine for Space Flight”.



Peter Suedfeld
*Dean Emeritus of
Graduate Studies and
Professor Emeritus of
Psychology at The
University of British
Columbia*

His research, using laboratory, field, and archival methods and reported in over 280 publications, focuses on coping, resilience, and growth during and after challenging experiences and environments. He is an Honorary Fellow of the Royal Canadian Geographical Society, a Fellow International of the Explorers Club, and a full member of the International Academy of Astronautics.



**Boris Vladimirovich
Morukov**
*Physician at the State
Research Center RF-
Institute for Biomedical
Problems (IBMP), Russia*

He trained with the Russian Federal Space Agency as a research-cosmonaut and flew aboard NASA Space Shuttle mission STS-106 as a mission specialist.



Ryota Sato
*Manager of Sensor
Technology Office of
Earth Observation
Research Center (EORC)
JAXA*

Before joining the EORC, he has been involved in developing SMILES (Superconducting Submillimeter-Wave Limb Emission Sounder) and currently he is working for future JEM earth observation mission.



Waleed Abdalati
Chief Scientist, NASA

Dr. Waleed Abdalati was appointed NASA chief scientist in January 2011, and serves as the principal advisor to NASA Administrator Charles Bolden on agency science programs, strategic planning, and the evaluation of related investments. His research has focused on the use of satellites and aircraft to understand how and why Earth's ice cover is changing, and what those changes mean for life on our planet.



Pascale Ehrenfreund
*Research Professor of
Space Policy and
International Affairs at
the Space Policy
Institute in Washington*

*DC and Professor of Astrobiology at
Leiden University, the Netherlands*

Since two decades she contributed as Principal Investigator, Co-Investigator and Teamleader to experiments in low Earth orbit, on the International Space Station as well as ESA and NASA astronomy and planetary missions. Dr. Ehrenfreund serves as the Project scientist of NASA's O/OREOs satellite currently in orbit.



Masaru Matsuoka
*Senior Advisor of RIKEN
(the Institute of Physical
and Chemical Research)*

Dr. Matsuoka graduated from Nagoya Univ. with a doctor of science in 1966. He then became Associate Professor of ISAS and Tokyo Univ. (1975 to 1986). Director of Cosmic Radiation Laboratory of RIKEN (1986 to 1999), he became Senior Advisor of RIKEN in 2010. An experimental and observational researcher of astrophysics based on X-ray astronomy since 1963, he has published about 250 papers on X-ray objects using balloon, rockets, and satellites. Science project manager of MAXI since 1997. Awarded the Asahi Prize with Hakucho team in 1980.



Gerhard Schmidtke
*Senior Project Scientist,
Fraunhofer Institute for
Physical Measurement
Techniques*

Gerhard Schmidtke was born in Lyck/Ostpreußen, Germany, 1937. He received the Diploma and PhD in Physics from Freiburg Univ. In 1960 he started working in EUV spectroscopy and thermo-spherionospheric physics. 1963/64 he joined Hinteregger at AFGL. Thereafter he continued his work on solar, auroral and airglow emissions aboard rockets, satellites and ISS. In 1998 the TIGER/COSPAR symposia were initiated. More than 140 papers have been published primarily in international journals.



Boris Zagreev
*Head of Laboratory in
the Central Research
Institute for Machine
Building, TsNII Mash*

1984 – graduated from the “Moscow Engineering Physics Institute” (experimental nuclear physics).
1993 – Ph.D. (Elementary particle and nuclear physics).
1984 - 2008 – senior researcher in Institute for Theoretical and Experimental Physics.



Torsten Neubert

Head of Section for Solar Systems Physics, National Space Institute, Technical University of Denmark

PhD. in Physics, University of Copenhagen, 1981. Stanford University and University of Michigan (1984-1994). Space Shuttle electron beam experiments with Peter Banks. Particle plasma simulations with Oscar Buneman. Danish Meteorological Institute and DTU Space (1995-): Electric discharges in the stratosphere and mesosphere: the sprites jets and giants. Lead proposer of ASIM for the ISS in 2015. Ørsted Satellite Project Scientist. Delegate to ESA's PB-HME and to the "International Living With a Star" programme.



Elizabeth Cantwell

Chair of NRC Decadal Survey

Senior Advisor for Mission Development in NIF and Photon Sciences Directorate, and Director for Mission Development in Engineering Directorate, LLNL. Before returning to LLNL in 2010 she served as Deputy Associate Director for Global Security at Oak Ridge National Laboratory. Before, she was at Los Alamos National Laboratory. She spent a decade at Lawrence Livermore National Laboratory. She spent several years at NASA HQ as a Program Manager for the life and microgravity sciences. She is a member of the Nat. Academy of Sciences Division on Engineering and Physical Sciences as well as the Space Studies Board.



Makato Asashima

AIST/Japan

Executive Director of the Japan Society for the Promotion of Science (JSPS), and Fellow and Director of the Research Center for Stem Cell Engineering at the National Institute of Advanced Industrial Science and Technology (AIST). Emeritus and visiting professor of the Dept. of Life Sciences (Biology) at the Graduate School of Arts and Sciences, Univ. of Tokyo. He was President of the Japanese Society of Space Biology (2002-2006) and has been awarded many prizes, incl. Siebold Prize (1994), Imperial Prizes and the Japan Academy prize from the Society of Japan Academy in 2001.



Georgy Karabadzhak

TSNIIMASH, Russia

Graduated from Moscow Institute of Physics and Technology. Obtained PhD (1986) and ScD (2006) degrees in area of plasma physics. Worked for Institute for Physical Problems, USSR Academy of Sciences (1980-1986). Since 1986 by now has been working for TSNIIMASH, Roscosmos leading R&D institute. Current position – Head of Complex for investigation of space exploration problems. Area of expertise includes deep space exploration, planning and implementation of space experiments, radiative properties of hot gases and plasmas.



Nicole Buckley
*Chief Scientist,
International Space
Station and Life
Sciences, CSA*

Nicole Buckley joined the Canadian Space Agency in January 2002 as Program Scientist for Space Life Sciences. She was named Director of Life and Physical Sciences in July 2004. Recently, Dr. Buckley was named Chief Scientist, International Space Station and Life Sciences. In this capacity, she is responsible for developing and leading a robust life sciences program dedicated to mitigating risks associated with human space flight.



Christer Fuglesang
*Head of Science and
Applications Division, in
the ISS Utilisation and
Astronaut Support
Department of ESA's*

Directorate of Human Spaceflight and Operations since May 2010.

Dr. Christer Fuglesang was an active ESA astronaut for 18 years and performed two missions with the Space Shuttle to ISS in 2006 and 2009. Fuglesang's background is in experimental particle physics. He has worked at CERN and since 2006 he is affiliated Professor at KTH, Stockholm.



Berndt Feuerbacher
*President of the
International
Astronautic Federation
and Chair of the
Human Spaceflight and
Exploration Science*

Advisory Committee (HESAC) of ESA.

He is retired as Director of the DLR Institute of Space Simulation and Professor of Space Physics at the University of Bochum, Germany. His research activities concentrate on materials science in microgravity and small bodies in planetary systems. He initiated the landing probe "Philae" for the Rosetta mission.



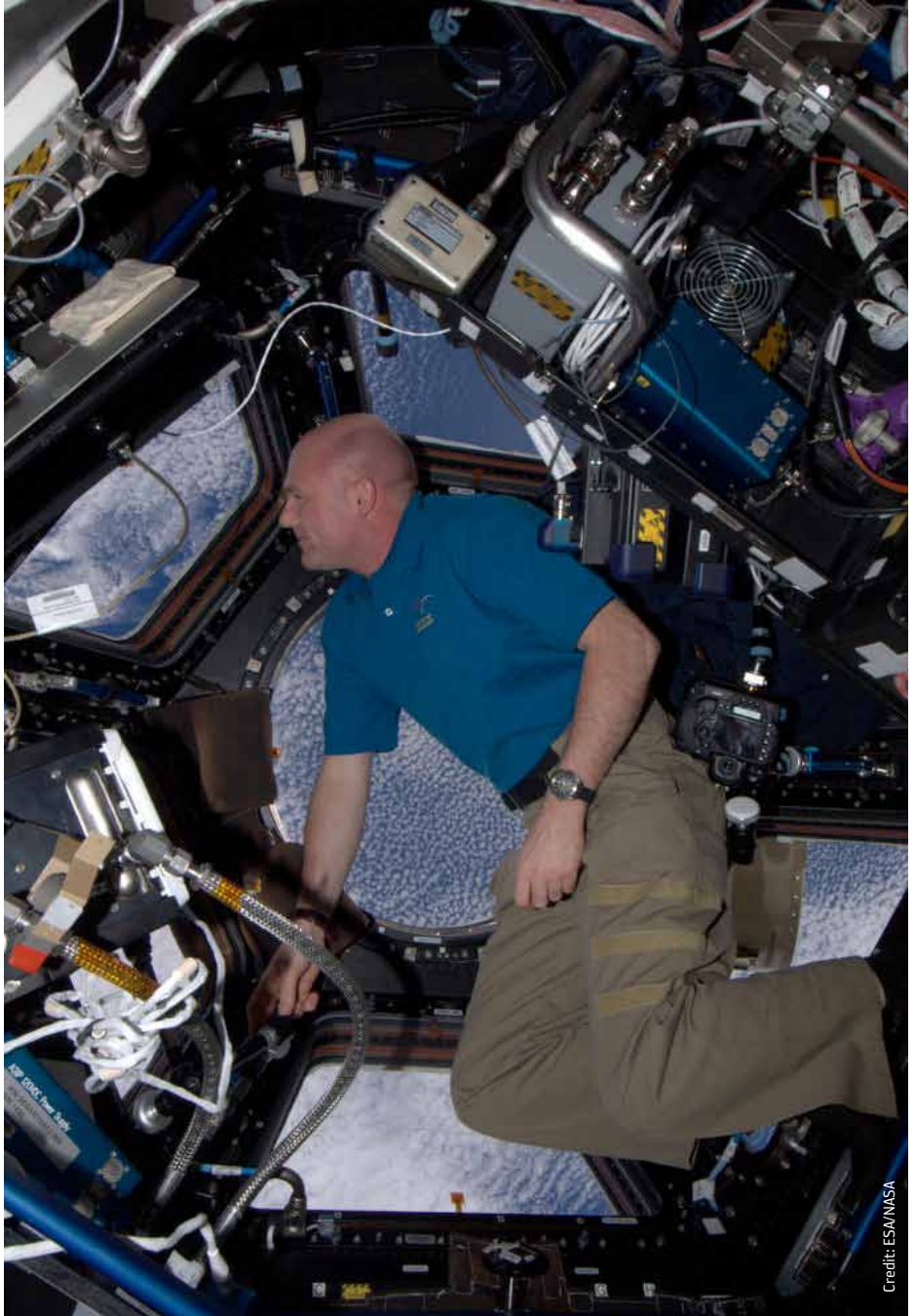
Malcolm Longair
ESA-HISPAC Chair

Has held many highly respected positions within the fields of physics and astronomy. He was appointed the ninth Astronomer Royal of Scotland in 1980, as well as the Regius Professor of Astronomy, Univ. of Edinburgh, and the director of the Royal Observatory, Edinburgh. He was head of the Cavendish Laboratory (1997 - 2005). He has served on and chaired many international committees, boards and panels, working with both NASA and ESA. He has received much recognition for his work over the years, including a CBE in the millennium honours list for his services to astronomy and cosmology.



Charles Bolden
NASA Administrator

Retired Marine Corps Maj. Gen. Charles Frank Bolden, Jr., began his duties as the twelfth Administrator of the National Aeronautics and Space Administration on July 17, 2009. As Administrator, he leads the NASA team and manages its resources to advance the agency's missions and goals.



Credit: ESA/NASA

ESA astronaut André Kuipers inside Cupola, 24 December 2011



Credits: K. Gertrud

Museum for Communication, Berlin

Salon Corinth – ISS Utilization Exhibition

Salon Corinth will host an exhibition featuring experimental hardware and commercial spin-off products related to the scientific utilisation of the ISS. The exhibits are examples of scientific research and applications in different fields: Biomedicine, Exobiology, study of the space environment, material science and biology. The exhibition is complemented by narrative descriptions and during the coffee and lunch breaks of the Symposium experts will be available to provide additional information.

Salon Humboldt – 3D Show

For the first 2 days of the Symposium, Salon Humboldt will host a 3D Show including compelling stereoscopic imagery from the ISS commented by various experts and astronauts. Each show will last 15 minutes at the following times:

Wednesday 2nd May: 15:15 and 18:15

Thursday 3rd May: 10:10, 11:10, 13:10, 15:10, 16:10, 17:10, 19:00

Salon Humboldt – Internet Café

Salon Humboldt will be available to all ISS Symposium participants as an Internet Café. The Wi-Fi code is as follows:

Profile: EVENT/ISS **Password:** Symposium

Social Programme

Wednesday 2nd May: Gala dinner at the Museum for Communication

19.15 *Departure to the Museum for Communication (situated at walking distance)*

19.30 *Drinks reception*

20.00 *Gala dinner*

23.30 *Finish*

Thursday 3rd May: Dinner onboard the *Brandenburg* boat; a cruise on the River Spree for the perfect introduction to Berlin's famous sights and varied architecture.

19.15 *Gather in the Hilton Hotel lobby*

19.30 *Departure of coaches to the boat*

19.50 *Boarding the Brandenburg*

20.00 *Departure of the Brandenburg and start of the evening cruise*

23.00 *Return*

23.15 *Departure of coaches back to the Hilton Hotel*

Friday 4th May: Business Buffet with many opportunities to network.

12.30 – 14.00 *Business Buffet in the Beletage restaurant, Hilton Hotel*



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