

**EGU General Assembly 2011**  
**Programme Group Programme**  
**PS – Planetary & Solar System Sciences**

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Monday, 04 April

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**GI-5 – Space Instrumentation, Planetary landers and Rovers (co-listed) – Orals**

Convener: Mark Leese | Co-Conveners: Peter Falkner, Lutz Richter, Günter Kargl

**Room: 42**

Chairperson: Mark Leese

- 13:30–13:45 EGU2011-6054  
**Ari-Matti Harri**, Walter Schmidt, Luis Vázquez, Harri Haukka, and Vladimir Linkin  
 Autonomous Operation of the MetNet Precursor Mission
- 13:45–14:00 EGU2011-9607  
**Andrew Steele**, Hans Amundsen, Liane Benning, Marilyn Fogel, Nicole Schmitz, and Amase 2010 team  
 The Arctic Mars Analogue Svalbard Expedition 2010.
- 14:00–14:15 EGU2011-11723  
 Marek Tulej, Andreas Riedo, Maria Iakovleva, Vera A.S.M. Fernandes, and **Peter Wurz**  
 A miniature laser ablation time-of-flight mass spectrometer for sub-ppm analysis of planetary surfaces:  
 performance studies
- 14:15–14:30 EGU2011-14094  
 Juhani Huovelin, **Maria Genzer** and the SIXS Team  
 An introduction to Solar Intensity X-ray and particle Spectrometer (SIXS) for BepiColombo
- 14:30–14:45 EGU2011-14100  
**Lauri Alha**, Juhani Huovelin, and Hans Andersson  
 X-ray solar monitor equipped with a concentrator optics
- 14:45–15:00 EGU2011-14101  
**Om Gupta**  
 Iridium NEXT SensorPODs: Global Access for Earth Observation

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**GI-5 – Space Instrumentation, Planetary landers and Rovers (co-listed) – Posters**

Convener: Mark Leese | Co-Conveners: Peter Falkner, Lutz Richter, Günter Kargl

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Gunter Kargl

- A91 EGU2011-1294  
 Valery Korepanov and **Fedir Dudkin**  
 Still one possibility to determine the wave vector onboard one spacecraft
- A92 EGU2011-1800  
**Glyn Collinson**, Thomas Moore, David Durachka, David Olson, David Knudsen, Paul Rozmarynowski,  
 Adrienne Beamer, and Jeffrey Klenzing  
 The Next Generation of Space Plasma Analyzer - Deployable Radial Imaging for Velocity, Energy, and  
 Density (DRIVEN)
- A93 EGU2011-2122  
**Serhiy Belyayev** and Nickolay Ivchenko  
 Digital Fluxgate Magnetometers, Trade-off Between Response, Sensitivity and Stability
- A94 EGU2011-6330  
**Miguel F. Cerdán** and Marina D. Michelena  
 In orbit calibration of COTS AMR magnetic sensor
- A95 EGU2011-6768  
 Miguel F. Cerdán, Ana B. Fernández, Juan J. Jiménez, and **Marina D. Michelena**  
 Witnessing variations in the Earth magnetic field by means of Nanosat-1B COTS AMR magnetic sensor
- A96 EGU2011-11562  
**Manfred Sampl**, Thomas Oswald, Helmut O. Rucker, Georg Fischer, Dirk Plettemeier, William S. Kurth, and  
 Wolfgang Macher  
 First assessment of the JUNO/Waves antenna properties
- A97 EGU2011-10002  
**Hans Eichelberger**, Gustav Prattes, Konrad Schwingenschuh, Ghulam Jaffer, Özer Aydogar, Irmgard Jernej,  
 Bruno Besser, Manfred Stachel, Tetsuya Tokano, and Peter Falkner  
 Acoustic outdoor measurements with a multi-microphone instrument for planetary atmospheres and surfaces
- A98 EGU2011-9830  
**Harri Haukka**, Walter Schmidt, Ari-Matti Harri, Jyri Heilimo, Maria Genzer, Ignacio Arruego Rodríguez, Héctor  
 Guerrero Padrón, and Joaquín Azcue Salto  
 High Level Shock Tests for Mars MetNet Penetrator

- A99 EGU2011-11662  
**Jens Grosse**, Caroline Lange, Kay Burrow, and Tim v. Zoest  
 First Design Concept for a Combined Thermal and Mechanical Penetration Device for Investigations of Icy Planetary Bodies - The 'Cryo-Mole'
- A100 EGU2011-9141  
**William Denig**, Daniel Wilkinson, Janet Green, Robert Redmon, Janet Machol, Juan Rodriguez, and Patricia Mulligan  
 The Status of U.S. Operational Satellite Space Environmental Datasets

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**GM10.1 – Planetary Geomorphology (co-listed) – Orals**

Convener: Susan Conway | Co-Conveners: Matthew Balme, Colman Gallagher

**Room: 21**

Chairperson: Susan Conway

- 08:30–08:45 EGU2011-11739  
**Stéphane Pochat** and Nicolas Loget  
 Origin of martian valleys : some highlights by geomorphic and hydraulic properties.
- 08:45–09:00 EGU2011-1604  
**Benjamin Black**, Taylor Perron, Sarah Drummond, and Devon Burr  
 Amount of Erosional Exhumation on Titan Inferred from Drainage Network Morphology
- 09:00–09:15 EGU2011-6999  
**Kate Goddard**, Sanjeev Gupta, Alexander Densmore, Jung-Rack Kim, Nicholas Warner, Patrice Carbonneau, and Jan-Peter Muller  
 Sediment Fan Evolution and Hydrologic Activity in Mojave Crater, Mars
- 09:15–09:30 EGU2011-11115  
**William Poole**, Jan-Peter Muller, and Peter Grinrod  
 Surface roughness mapping from multi-resolution DTMs for landing site selection
- 09:30–09:45 EGU2011-338  
**Gro Pedersen** and James Head  
 Evidence of widespread degraded Amazonian-aged ice-rich deposits in the transition between Elysium Rise and Utopia Planitia, Mars: Guidelines for the recognition of degraded ice-rich materials
- 09:45–10:00 EGU2011-953  
**Thomas Appéré**, Bernard Schmitt, Yves Langevin, Aymeric Spiga, Sylvain Douté, Antoine Pommerol, François Forget, Brigitte Gondet, and Jean-Pierre Bibring  
 Peculiar Phenomena of Sublimating Seasonal Deposits During Northern Spring on Mars

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**GM10.1 – Planetary Geomorphology (co-listed) – Posters**

Convener: Susan Conway | Co-Conveners: Matthew Balme, Colman Gallagher

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Susan Conway

- A210 EGU2011-1052  
**Samantha K. Harrison**, Matthew R. Balme, Alex Hagermann, and John B. Murray  
 Observation and interpretation of an inverted channel feature in the middle member of the Medusae Fossae Formation
- A211 EGU2011-13602  
**Kyeong Park**, Jungrack Kim, and Hyewon Yun  
 The investigation of yardang field over Medusa Fossae Formation by the very high resolution stereo topography
- A212 EGU2011-1310  
**Davide Baioni** and Forese Carlo Wezel  
 Karst landforms on an evaporite dome in northern Coprates Chasma, Mars: similarities with Earth karst.
- A213 EGU2011-5750  
**Maria Teresa Brunetti**, Goro Komatsu, Paolo Mancinelli, Kazuhisa Goto, Michele Santangelo, Hitoshi Saito, Federica Fiorucci, Mauro Cardinali, and Fausto Guzzetti  
 Detection, mapping, classification, and statistics of mass movements on Mars
- A214 EGU2011-13467  
**Balázs Székely**, Peter Dorninger, Josef Jansa, Tomaž Podobnikar, Zsófia Koma, Dalma Trosits, and Melinda Dósa  
 Martian and Terrestrial debris slopes: Automated recognition attempts using a multi-method approach
- A215 EGU2011-7091  
 Dennis Reiss, **Jan Raack**, Angelo P. Rossi, Gaetano di Achille, and Harald Hiesinger  
 First in situ analysis of dust devil tracks on Earth and their comparison with tracks on Mars

- A216 EGU2011-10710  
**Jan Raack**, Dennis Reiss, and Harald Hiesinger  
Bright Dust Devil Tracks on Earth: Implications for their Formation on Mars.
- A217 EGU2011-8336  
**Thomas Cornet**, Olivier Bourgeois, Stéphane Le Mouélic, Sébastien Rodriguez, Christophe Sotin, Jason W. Barnes, Robert H. Brown, Kevin H. Baines, Bonnie J. Buratti, Roger N. Clark, and Philip D. Nicholson  
Geology and Temporal Survey of Ontario Lacus on Titan from 2005 to 2009.
- A218 EGU2011-13503  
**Flora Paganelli**, Robert Pappalardo, Gerald Schubert, Randolph Kirk, and The Cassini RADAR Science Team  
Structural patterns on Titan identified using Cassini SAR PCA
- A219 EGU2011-6489  
**Matthew Balme**, Colman Gallagher, William Hartmann, and David Rothery  
Morphologies associated with small impact crater clusters in the Western Elysium Planitia region of Mars.
- A220 EGU2011-8692  
**Susan Conway** and Nicolas Mangold  
Observations and Modelling on Crater Shape Evolution with Latitude in Terra Cimmeria, Mars - Implications for Climate.
- A221 EGU2011-11812  
**Colman Gallagher** and Matt Balme  
Effluent crater breaches and channels on Mars: processes, morphological relationships and implications for understanding hydrology
- A222 EGU2011-13983  
**Nicholas Warner**, Sanjeev Gupta, Jung-Rack Kim, Shih-Yuan Lin, Lucille LeCorré, and Jan-Peter Muller  
Retreat of a giant cataract in a martian outflow channel

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### PS1.0 – Exploring the Solar System : Missions, Techniques and policy – Posters

Convener: Christian Muller | Co-Conveners: Peter Falkner, Bernard Foing, Pascale Ehrenfreund, Nicolas Peter

#### Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Christian Muller

- Z1 EGU2011-1602  
**Christian Muller**, Didier Moreau, William Thuillot, Juergen Oberst, Apostolos Christou, Anne Lemaître, Daniel Hestroffer, Jérémie Vaubaillon, Florent Deleflie, and Alain Vienne  
ORCISS: a collision avoidance proposal for the manned planetary exploration missions.
- Z2 EGU2011-2360  
**Takahiro Iwata**, Koji Matsumoto, Yoshiaki Ishihara, Fuyuhiko Kikuchi, Yuji Harada, and Sho Sasaki  
A Study on the Four-way Doppler Measurements and Inverse VLBI Observations for Mars Rotation
- Z3 EGU2011-9531  
**Jonathan I. Lunine**, Kim Reh, Christophe Sotin, Patrice Couzin, and Andre Vargas  
Titan Aerial Explorer Mission Proposal to ESA's Cosmic Vision Programme.
- Z4 EGU2011-156  
**Christian Muller** and Didier Moreau  
Advantages of human exploration of the solar system from APOLLO and ISS experience
- Z5 EGU2011-1449  
**Graciela De Diego**  
SOLID3: A Biochip-Based Instrument for Environmental Monitoring in Planetary Exploration
- Z6 EGU2011-2331  
**David Senske**, Robert Pappalardo, Louise Prockter, Jean-Pierre Lebreton, and Dima Titov  
The Europa Jupiter System Mission: Opportunities for Synergistic JEO and JGO Jovian Tour Science
- Z7 EGU2011-4745  
**Lev Zelenyi**, Victor Khartov, Igor Mitrofanov, and Maxim Martynov  
Perspectives of Russian robotic lunar program
- Z8 EGU2011-6525  
**Philippe Lamy**, Pierre Vernazza, Joel Poncy, James Bell, Dale Cruikshank, Olivier Groussin, Jorn Helbert, Emmanuel Hinglais, Francesco Marzari, and Pascal Rosenblatt  
Trojans' Odyssey: Unveiling the early history of Solar System
- Z9 EGU2011-7982  
**Igor Alexeev**, Elena Belenkaya, Vladimir Kalegaev, and Maxim Khodachenko  
Mapping of the polar Jupiter's ionosphere to the equatorial magnetodisk in the Jupiter outer magnetosphere
- Z10 EGU2011-10129  
**Bruno Christophe** and the OSS Consortium Team  
OSS: an Outer Solar System Mission towards Neptune, Triton and KBO

- Z11 EGU2011-10546  
**Robert Bentley**, Giovanni Lapenta, Michel Blanc, Thierry Fouchet, Mauro Messerotti, Andre Csillagy, and Luis Sanchez  
 CASSIS - Standards and Interoperability in Solar System Science
- Z12 EGU2011-10875  
**Gerhard Thiele**  
 A European Path to Human Space Exploration
- Z13 EGU2011-11161  
**Joel Poncy**, Catherine Le Peuedic, Sebastien Clerc, Patrice Couzin, Jean-Pierre Prost, and Xavier Roser  
 In-orbit rendezvous: an enabler of ambitious exploration and science missions beyond Earth's orbit

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**PS2.7 – Terrestrial and Extraterrestrial Impact Cratering – Orals**

Convener: Fred Jourdan | Co-Conveners: Uwe Reimold, Martin Schmieder, Alexander Deutsch, Christian Koeberl

**Room: 32**

Chairperson: Fred Jourdan / Uwe Reimold

- 10:30–10:45 EGU2011-9377  
**Frank Schäfer**, Klaus Thoma, Tobias Hoerth, Bernd Lexow, Stefan Hiermaier, Frank Bagusat, Thomas Kenkmann, Michael H. Poelchau, Alex Deutsch and the MEMIN Team  
 MEMIN - Hypervelocity Impact Cratering Experiments into Sandstone: Initial results
- 10:45–11:00 EGU2011-1187  
**Jens Ormö**, Kevin Housen, Keith Holsapple, Alain Lepinette, Irene Melero Asensio, and Josefina Torres Redondo  
 A new facility for low-velocity experimental studies of wet target impacts at Centro de Astrobiología, Spain.
- 11:00–11:15 EGU2011-461  
**Denise Anders**, Philip Kegler, Elmar Buchner, and Martin Schmieder  
 Carbonate melt lithologies from the Steinheim impact structure (Baden-Württemberg, Germany)
- 11:15–11:30 EGU2011-13322  
**Alexander Rocholl**, Maria Ovtcharova, Urs Schaltegger, Jan Wijbrans, Jean Pohl, Mathias Harzhauser, Jerome Prieto, Albert Ulbig, and Madelaine Boehme  
 A precise and accurate "astronomical" age of the Ries impact crater, Germany: A cautious note on argon dating of impact material
- 11:30–11:45 EGU2011-2339  
**Fred Jourdan** and Martin Schmieder  
 The age of the Lappajärvi impact structure
- 11:45–12:00 EGU2011-11281  
**Martin Schmieder**, Elmar Buchner, Mario Trieloff, Winfried H. Schwarz, and Philippe Lambert  
 The latest Triassic Rochechouart impact (France) -  $^{40}\text{Ar}/^{39}\text{Ar}$  dating and potential relation to catastrophic paleoenvironmental effects in the western Tethys domain
- 12:00–12:15 EGU2011-7559  
**Ulrich Bläß**, Martin Schmieder, and Elmar Buchner  
 Microstructural TEM-investigations on shock-metamorphic chert from the Jebel Waqf as Suwwan impact structure, Jordan

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**PS2.7 – Terrestrial and Extraterrestrial Impact Cratering – Posters**

Convener: Fred Jourdan | Co-Conveners: Uwe Reimold, Martin Schmieder, Alexander Deutsch, Christian Koeberl

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Alex Deutsch / Martin Schmieder

- Z14 EGU2011-691  
 Martin Schmieder and **Elmar Buchner**  
 A water-saturated continental impact scenario for the Ries-Steinheim event (Germany)
- Z15 EGU2011-1334  
**Elmar Buchner** and the \*Ries-Steinheim Dating Team  
 Concurrent ages of the Nördlinger Ries and the Steinheim Basin? - An extremely voluminous versus an inexistent isotopic data set for the two impact craters in Southern Germany
- Z16 EGU2011-11890  
 Lidia Pittarello, **Christian Koeberl**, Julie Brigham-Grette, Martin Melles, and Pavel Minyuk  
 The puzzle of an impact crater in siliceous volcanic rocks: preliminary characterization of the El'gygytyn ICPD drill core

- Z17 EGU2011-4573  
**Vera Assis Fernandes**, Mario Trieloff, Natalia A. Artemieva, Joerg Fritz, and W. Uwe Reimold  
Need to re-evaluate the age of Chesapeake Bay and Popigai Craters and their relevance for the Eocene/Oligocene boundary
- Z18 EGU2011-1392  
Jaroslav Klokocnik, **Jan Kostecky**, and Josef Sebera  
Catalogue of proved impact craters on the Earth as seen by gravity data
- Z19 EGU2011-4246  
**Anna Losiak**, Ludovic Ferrière, and Christian Koeberl  
Specific combinations of planar deformation feature orientations in shocked quartz grains from the Bosumtwi impact crater as a signature of  $\alpha$ -quartz
- Z20 EGU2011-4567  
**Ulli Raschke**, Uwe Reimold, and Ralf-Thomas Schmitt  
Preliminary stratigraphy and first petrographic and geochemical results from the ICDP drill core from El'gygytgyn crater (Russia).
- Z21 EGU2011-6098  
**Anca Isac**, Michael E. Purucker, Mioara Manda, and Herbert Frey  
Magnetic characteristics of the largest impacts on the Moon, Mars, and Earth
- Z22 EGU2011-9131  
**Irene Melero Asensio**, Fátima Martín-Hernández, and Jens Ormö  
Rock magnetic properties of drill core LOC-9 from the Lockne crater, Sweden
- Z23 EGU2011-9148  
**Irene Melero Asensio**, Jens Ormö, and Erik Sturkell  
Preliminary geophysical survey of the Malingen structure, Sweden
- Z24 EGU2011-7189  
**Elmar Buhl**, Michael H. Poelchau, Thomas Kenkmann, and Georg Dresen  
Sub-surface Grain Comminution in Experimentally Produced Impact Craters in Sandstone
- Z25 EGU2011-8021  
**Katarina Miljkovic** and Manish R. Patel  
Oblique impact experiments into soil-ice targets: conditions for uncovering ice
- Z26 EGU2011-4435  
Ralf T. Schmitt, **Wolf Uwe Reimold**, and Ulrich Hornemann  
Shock Recovery Experiments with Dry Sandstone at Low Shock Pressures
- Z27 EGU2011-1503  
**Anja Dufresne**, Michael H. Poelchau, Thomas Kenkmann, and Memin Team  
Crater morphologies in impact experiments into sandstone
- Z28 EGU2011-10097  
**Alexander Deutsch**, Anja Dufresne, Thomas Kenkmann, Michael Poelchau, Peter Schulte, and The MEMIN team  
MEMIN - sidestep: a cratering experiment into limestone
- Z29 EGU2011-10937  
**Matthias Saric** and Julia Lanz  
Post-impact deformation of complex aqueous deposits in an impact crater in Aeolis Planum, Mars
- Z30 EGU2011-11996  
**Ildiko Gyollai**, Friedrich Popp, and Christian Koeberl  
Global warming after the Snowball Earth glaciation: The search for an extraterrestrial component

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**ST2.4/PS5.2 – Terrestrial and planetary magnetotails and their response to variable upstream conditions (co-organized) – Orals**

Convener: Eija Tanskanen | Co-Conveners: Suzie Imber, Rumi Nakamura, Caitriona Jackman, Christopher Arridge, Nicolas André

**Room: 32**

Chairperson: n.n.

- 13:30–13:45 EGU2011-4855  
**James A. Slavin**, Caitriona M. Jackman, and Marissa F. Vogt  
Comparative Examination of Plasmoid Ejection at Mercury, Earth, Jupiter, and Saturn
- 13:45–14:00 EGU2011-4885  
**Cesar Bertucci**, Ronan Modolo, Fritz Neubauer, Karoly Szego, Niklas Edberg, and Andrew Coates  
The induced magnetotail of Titan
- 14:00–14:15 EGU2011-5175  
**Xianzhe Jia**, Kenneth Hansen, Tamas Gombosi, and Margaret Kivelson  
Reconnection in Saturn's magnetotail and its effects on global dynamics

- 14:15–14:30 EGU2011-9390  
**Nick Sergis**, Tom Krimigis, Elias Roussos, Adam Masters, Caitriona Jackman, Michelle Thomsen, Douglas Hamilton, Norbert Krupp, Donald Mitchell, Michele Dougherty, Andrew J. Coates, and Frank J. Crary  
 Hot O<sup>+</sup> ion presence and directional flows in the magnetosheath of Saturn
- 14:30–14:45 EGU2011-4703  
**Pontus Brandt**, Donald Mitchell, Barry Mauk, Laurent Lamy, Baptiste Cecconi, and Denis Grodent  
 Acceleration of Energetic Particles from Global Magnetotail Reconfiguration and Relation to Auroral and Radio Emissions at Earth, Saturn and Jupiter
- 14:45–15:00 EGU2011-1458  
**Steve Milan** and Jennifer Gosling  
 Superposed epoch analysis of the geosynchronous magnetic field dipolarization associated with substorms
- Chairperson: Rumi Nakamura, Suzie Imber
- 15:30–15:45 EGU2011-12383  
**Colin Forsyth**, Mark Lester, Robert Fear, Elizabeth Lucek, Iannis Dandouras, Andrew Fazakerley, Harold Singer, and Tim Yeoman  
 Solar wind and substorm excitation of the wavy current sheet
- 15:45–16:00 EGU2011-1755  
**Liisa Juusola**, Nikolai Østgaard, and Eija Tanskanen  
 Statistics of plasma sheet convection
- 16:00–16:15 EGU2011-4620  
**Aimin Du**, Rumi Nakamura, Tielong Zhang, Evgeny Panov, Wolfgang Baumjohann, Hao Luo, Quanming Lu, Martin Volwerk, Vassilis Angelopoulos, and Kelvin Glassmeier  
 Fast Tailward Flows in the Plasma Sheet Boundary Layer during a Substorm on March 9, 2008: THEMIS Observations
- 16:15–16:30 EGU2011-4491  
**Tuija Pulkkinen**, Noora Partamies, Minna Palmroth, Jennifer Kissinger, Robert McPherron, Marina Kubyschkina, Karl-Heinz Glassmeier, and Charles Carlson  
 Plasma sheet magnetic fields and flows during steady convection events
- 16:30–16:45 EGU2011-7828  
**Kristian Snekvik**, Eija Tanskanen, and Nikolai Østgaard  
 Flux closure during magnetotail reconnection
- 16:45–17:00 EGU2011-9353  
 Martin Connors, **Christopher Russell**, Vassilis Angelopoulos, and Howard Singer  
 Magnetic Flux Transfer During the April 5, 2010 Galaxy 15 Event: An Unprecedented Observation

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**PS5.3/ST6.3 – Planetary, Solar and Heliospheric Radio Emissions (co-organized) – Orals**

Convener: Patrick Galopeau | Co-Conveners: Mohammed Y. Boudjada

**Room: 32**

Chairperson: Patrick H. M. Galopeau

- 08:30–08:45 EGU2011-4167  
**Robert Mutel**, John Menietti, Donald Gurnett, Jolene Pickett, Laurent Lamy, and Baptiste Cecconi  
 An Occam's razor approach to interpreting observed wave modes and polarization in planetary magnetospheres
- 08:45–09:00 EGU2011-5344  
**Konrad Sauer** and Richard D. Sydora  
 Fundamental aspects of beam-generated plasma radiation
- 09:00–09:15 EGU2011-1592  
**Tatiana Burinskaya**, Mikhail Mogilevsky, Tatiana Romantsova, and Jean Louis Rauch  
 Generation and escape of the Auroral Kilometric Radiation in thin plasma cavities
- 09:15–09:30 EGU2011-3755  
**Douglas Menietti**, Sheng-Yi Ye, Patricia Schippers, Laurent Lamy, and Donald Gurnett  
 Narrowband emission observed near a Saturn kilometric radiation source region
- 09:30–09:45 EGU2011-8657  
**Anne-Lise Gautier**, Baptiste Cecconi, Philippe Zarka, and Georg Fischer  
 Propagation "over the horizon" of Saturn's radio lightning studied by three-dimensional ray tracing
- 09:45–10:00 EGU2011-6465  
**David Andrews**, Baptiste Cecconi, Stanley W. H. Cowley, Michele K. Dougherty, Laurent Lamy, Gabrielle Provan, and Philippe Zarka  
 Magnetospheric period oscillations at Saturn: Evidence in magnetic field phase data for rotational modulation of Saturn kilometric radiation emissions

10:00–10:15 EGU2011-8857

**Thomas Oswald**, Helmut Rucker, Wolfgang Macher, Georg Fischer, Manfred Sampl, and Mykhaylo Panchenko  
 Numerical calibration of spacecraft antennas in isotropic cold plasma with an application to STEREO/WAVES

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**PS5.3/ST6.3 – Planetary, Solar and Heliospheric Radio Emissions (co-organized) – Posters**

Convener: Patrick Galopeau | Co-Conveners: Mohammed Y. Boudjada

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Mohammed Y. Boudjada

Z31 EGU2011-8874

**Thomas Oswald**, Manfred Sampl, Helmut Rucker, Wolfgang Macher, Georg Fischer, and Milan Maksimovic  
 Preliminary numerical studies of the Solar Orbiter RPW antennas

Z32 EGU2011-9750

**Baptiste Cecconi**, Jan Bergman, Thomas Chust, and Aurélie Marchaudon  
 A step forward in goniopolarimetry with multi-component electric and magnetic radio measurements

Z33 EGU2011-12614

**Tatiana Romantsova**, Mikhail Mogilevsky, Tatiana Burinskaya, Irina Moiseenko, Dmitry Chugunin, and Jan Hanasz

Formation of AKR source on the polar edge of auroral region

Z34 EGU2011-7957

**Mohammed Y. Boudjada**, Patrick Galopeau, Milan Maksimovic, Helmut Rucker, and Wolfgang Voller  
 Analysis of the spectral continuity of distinct Type III bursts from high to low frequencies

Z35 EGU2011-8022

**Mohammed Y. Boudjada**, Patrick Galopeau, and Wolfgang Macher  
 Jovian decametric and hectometric events subject to the Io plasma torus effect

Z36 EGU2011-8059

**Patrick Galopeau** and Mohammed Y. Boudjada  
 Beaming cone of Io-controlled Jovian decameter radio emission derived from occurrence probability

Z37 EGU2011-7749

**Helmut O. Rucker**, Mykhaylo Panchenko, Denis Grodent, and Aikaterini Radioti  
 Periodic bursts of non-Io DAM and its relationship to Jovian aurora phenomena

Z38 EGU2011-12330

**Alain Lecacheux**  
 On the SKR and Saturn auroras relationship



Tuesday, 05 April

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**PS2.1 – Atmospheres of Terrestrial Planets – Orals**

Convener: Wojciech J. Markiewicz | Co-Conveners: Emmanuel Marcq, Anni Määttänen

**Room: 32**

Chairperson: n.n.

- 08:30–08:45 EGU2011-6668  
**Yongyun Hu** and Feng Ding  
Super-rotation over tidally-locked exoplanets
- 08:45–09:00 EGU2011-1481  
**Geoffrey Vallis** and Jonathan Mitchell  
Transition to Superrotation in Terrestrial Atmospheres
- 09:00–09:15 EGU2011-12813  
**Sanjay Limaye**, Robert Krauss, Wojciech Markiewicz, and Dimitri Titov  
Venus Atmosphere: Observations from VMC on Venus Express
- 09:15–09:30 EGU2011-628  
**Itziar Garate-Lopez**, Ricardo Hueso, Agustín Sánchez-Lavega, and Javier Peralta  
Venus' South Polar Vortex morphology and dynamics from VIRTIS measurements during the Venus Express mission
- 09:30–09:45 EGU2011-2542  
**Denis Belyaev**, Franck Montmessin, Jean-Loup Bertaux, Arnaud Mahieux, Anna Fedorova, Oleg Korablev, Emmanuel Marcq, Yuk Yung, and Xi Zhang  
Sulfur mono- and dioxides above Venus' clouds from SPICAV/SOIR solar occultations
- 09:45–10:00 EGU2011-2603  
**Emmanuel Marcq**, Denis Belyaev, Jean-Loup Bertaux, Anna Fedorova, and Franck Montmessin  
Long-term monitoring SO<sub>2</sub> above the clouds of Venus using SPICAV-UV in nadir mode
- 10:00–10:15 EGU2011-2681  
**Manuela Sornig**, Guido Sonnabend, Dusan Stupar, and Tobias Stangier  
Investigations of Dynamics and Temperatures in the Venusian Upper Atmosphere by Infrared Heterodyne Spectroscopy

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**COFFEE BREAK**

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Chairperson: n.n.

- 10:30–10:45 EGU2011-4275  
**Maria T Zuber** and David E Smith  
Volume, Mass and Density of Mars' Season Polar Caps
- 10:45–11:00 EGU2011-8359  
**Oliver J. Stenzel**, H. Uwe Keller, Nico M. Hoekzema, Wojciech J. Markiewicz, and Harald Hoffmann  
The Limb of the Martian Atmosphere in Mars Express' High Resolution Stereo Camera Images
- 11:00–11:15 EGU2011-2981  
**Therese Encrenaz**, Thomas Greathouse, Matthew Richter, Thierry Fouchet, and Bruno Bézard  
A search for SO<sub>2</sub> on Mars from ground-based infrared spectroscopy
- 11:15–11:30 EGU2011-13248  
**Thanasis E. Economou**  
Mars Atmosphere Argon Measurement with the Alpha Particle X-Ray Spectrometer on MER Mission.
- 11:30–11:45 EGU2011-11228  
Giovanna Rinaldi, Alessandro Mura, Stefano Orsini, and **Valeria Mangano**  
Martian Atmospheric Sputtering
- 11:45–12:00 EGU2011-6145  
**Joachim Stock**, Christopher Boxe, Lee Grenfell, Ralph Lehmann, Beate Patzer, Heike Rauer, and Yuk Yung  
Quantification of CO<sub>2</sub>-formation pathways in the Martian Atmosphere

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**PS2.1 – Atmospheres of Terrestrial Planets – Posters**

Convener: Wojciech J. Markiewicz | Co-Conveners: Emmanuel Marcq, Anni Määttänen

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z1 EGU2011-6129  
**Rainer Haus**, Gabriele Arnold, and David Kappel  
Comparative temperature retrievals based on VIRTIS/VEX and PMV/VENERA-15 radiation measurements over the northern hemisphere of Venus
- Z2 EGU2011-2839  
**Jun Cui**, Marina Galand, Andrew Coates, Tielong Zhang, and Ingo Mueller-Wodarg  
Suprathermal electron spectra in the Venus ionosphere
- Z3 EGU2011-2970  
**Therese Encrenaz**, Thomas Greathouse, Matthew Richter, Bruno Bézard, Thierry Fouchet, Emmanuel Marcq, Thomas Widemann, and Sushil Atreya  
The synthetic spectrum of Venus in the 7-micron region
- Z4 EGU2011-551  
**Oksana S. Shalygina**, Elena V. Petrova, Wojciech J. Markiewicz, Dmitry V. Titov, and Nikolay I. Ignatiev  
Properties of the Venus upper clouds from the phase dependence observed in the VMC images
- Z5 EGU2011-1477  
**Masaru Yamamoto**  
Microscale simulations of convective adjustment and mixing: Application to the Venus atmosphere
- Z6 EGU2011-495  
**Yixiong Wang** and Peter Read  
Terrestrial planetary atmospheric circulation regimes in a simplified GCM
- Z7 EGU2011-12303  
**Upendra Singh**, George Emmitt, Sanjay Limaye, Joel Levine, Jirong Yu, and Michael Kavaya  
Coherent Doppler Lidar for Wind Measurements on Venus
- Z8 EGU2011-3450  
**Brigitte Gondet**, Jean-Pierre Bibring, and Mathieu Vincendon  
Diversity of atmospheric components, detected by OMEGA/MEX limb observations
- Z9 EGU2011-7004  
**Anni Määttänen**, Francisco Gonzalez-Galindo, Aymeric Spiga, Franck Montmessin, and François Forget  
Studies on the dynamical and microphysical origin of the mesospheric CO<sub>2</sub> clouds on Mars
- Z10 EGU2011-11245  
**Mathieu Vincendon**, Brigitte Gondet, Cedric Pilorget, Jean-Pierre Bibring, and Scott Murchie  
Vertical distribution of water ice aerosols from OMEGA data
- Z11 EGU2011-11617  
**Tamara Goldin** and Christian Koeberl  
The descent of hypervelocity impact ejecta through planetary atmospheres
- Z12 EGU2011-6237  
**Hans-Jörg Fahr**, Jochen Zoenchen, and Hans-Uwe Nass  
Observational proofs for an unexpectedly large extension of the terrestrial hydrogen exosphere

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#### ST2.4/PS5.2 – Terrestrial and planetary magnetotails and their response to variable upstream conditions (co-organized) – Posters

Convener: Eija Tanskanen | Co-Conveners: Suzie Imber, Rumi Nakamura, Caitriona Jackman, Christopher Arridge, Nicolas André

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z124 EGU2011-7851  
**Caitriona Jackman** and the International Space Science Institute: "Investigating the Dynamics of Planetary Magnetotails" Team  
An overview of the aims and plans of an ISSI Team "Investigating the Dynamics of Planetary Magnetotails"
- Z125 EGU2011-1145  
**Caitriona Jackman**, James Slavin, and Michele Dougherty  
Cassini observations of plasmoids and travelling compression regions in Saturn's magnetotail in 2006.
- Z126 EGU2011-4652  
**Rongsheng Wang**, Quanming Lu, Aimin Du, Rumi Nakamura, Wolfgang Baumjohann, and Can Huang  
In situ observation of a secondary magnetic island near the center of the ion diffusion region
- Z127 EGU2011-6082  
**Karoly Szego**, Zoltan Nemeth, Geza Erdos, Lajos Foldy, Michelle Thomsen, Dot Delapp, and Zsofia Bebesi  
The structure of the magnetodisk of Saturn near 20 R<sub>S</sub>
- Z128 EGU2011-4671  
**Jian Du**, Tielong Zhang, Chi Wang, Wolfgang Baumjohann, and Martin Volwerk  
Magnetic configuration in the Venus' induced magnetosphere

- Z129 EGU2011-9672  
**Andrey Fedorov**, Stas Barabash, Jean-Andre Sauvaud, and Rickard Lundin  
Mars Express measurements of the ion escape rate for solar minimum
- Z130 EGU2011-2541  
**Chaosong Huang**  
Relation among total magnetotail magnetic flux, solar wind triggers, and substorm onsets during sawtooth events
- Z131 EGU2011-2340  
**Motoharu Nowada**, Ching-Huei Lin, Sui-Yan Fu, Zu-Yin Pu, Howard J. Singer, Vassilis Angelopoulos, Charles W. Carlson, and Hans-Ulrich Auster  
Magnetic Field and Plasma Responses in the Near-Earth Magnetotail and Magnetospheric Boundary Layer During an Encounter of Heliospheric Current Sheet
- Z132 EGU2011-4355  
**Rumi Nakamura** and the Double-onset substorm study Team  
Evolution of the near-Earth magnetotail current sheet during a double-onset substorm under a weak solar-wind driver
- Z133 EGU2011-12728  
**Vahe Peromian** and Mostafa El-Alaoui  
The Energization of Ions in the Magnetotail during CME- and CIR-driven Geomagnetic Storms
- Z134 EGU2011-12583  
**Jan Merka**, David Sibeck, and Thomas Narock  
Statistical properties of bursty bulk flows in the magnetosphere revealed by the Virtual Magnetospheric Observatory
- Z135 EGU2011-9596  
**Evgeny Panov**, Rumi Nakamura, Wolfgang Baumjohann, Vassilis Angelopoulos, Karl-Heinz Glassmeier, Anatoli A Petrukovich, Victor A Sergeev, Martin Volwerk, James P McFadden, and Davin E Larson  
THEMIS multi-case study of BBF braking in the near-Earth plasma sheet
- Z136 EGU2011-13027  
**Suzanne Imber** and James Slavin  
Multiple Flux Ropes in the Earth's Magnetotail
- Z137 EGU2011-5146  
**Takuma Nakamura**, Rumi Nakamura, Alexandra Alexandrova, and Yasubumi Kubota  
Hall magnetohydrodynamic effects for three-dimensional magnetic reconnection with finite width along the direction of the current
- Z138 EGU2011-7361  
**Alexandra Alexandrova**, Vladimir Semenov, Rumi Nakamura, and Helfried Biernat  
Three-dimensional non-steady magnetic reconnection signatures: Model and observations
- Z139 EGU2011-8676  
Chris Arridge and **Andrew Walsh**  
Coupling of Dungey and Vasylun<sup>+</sup> nas cycle reconnection: Drivers and observable consequences
- Z140 EGU2011-8419  
**Andrew Walsh**, Chris Owen, Andrew Fazakerley, Colin Forsyth, and Iannis Dandouras  
Average Pitch Angle Distributions in the Magnetotail: The Effect of Geomagnetic Activity
- Z141 EGU2011-4632  
**Aimin Du** and Tielong Zhang  
Field line resonance trigger auroral arcs identified by ground and multi-spacecraft in the near-Earth magnetotail
- Z142 EGU2011-6722  
**Elizabeth Davey**, Mark Lester, Steven Milan, and Robert Fear  
Substorm and magnetic storm effects on the cross-tail current sheet
- Z143 EGU2011-11098  
**Eija Tanskanen**, James Slavin, Kristian Snekvik, Suzie Imber, Laura Degener, and Lasse Häkkinen  
Magnetotail stress during storms and non-storm intervals

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#### PS9.1 – Solar System Results from Herschel – Orals

Convener: Paul Hartogh | Co-Conveners: Emmanuel Lellouch

**Room: 31**

Chairperson: Lellouch

- 15:30–15:45 EGU2011-2795  
**Glenn Orton**, Bruce Swinyard, Matthew Griffin, Trevor Fulton, Ed Polhampton, Cos Hopwood, Raphael Moreno, Emmanuel Lellouch, and Paul Hartogh  
Spectroscopic Observations of Uranus and Neptune by the Herschel SPIRE Experiment: Constraints on Global-Mean Temperature Structure and Composition

- 15:45–16:00 EGU2011-9230  
**Tanya Lim**, Sonia Fornasier, and Thomas Mueller  
 Herschel-SPIRE Photometry of TNOs
- 16:00–16:15 EGU2011-9408  
**Miguel de Val-Borro**, Michael Küppers, Paul Hartogh, Jacques Crovisier, Dominique Bockelée-Morvan, Nicolas Biver, Emmanuel Jehin, Dariusz Lis, Bruce Swinyard, Bart Vandenbussche and the HssO Team  
 Herschel Observations of Comet 103P/Hartley 2
- 16:15–16:30 EGU2011-9920  
**Michael Mommert** and the TNOs are Cool-Plutino Team  
 TNOs are Cool: A Survey of the Transneptunian Region - Physical Characterization of 14 Plutinos using PACS observations
- 16:30–16:45 EGU2011-8482  
**Paul Hartogh**, Christopher Jarchow, Bruce Swinyard, Maria Blecka, Emmanuel Lellouch, Miguel de Val-Borro, Miriam Rengel, Helmut Feuchtgruber, Hideo Sagawa, and Ganna Portyankina  
 Herschel observations of Mars
- 16:45–17:00 EGU2011-8299  
**Raphael Moreno**, Emmanuel Lellouch, Régis Courtin, Bruce Swinyard, Trevor Fulton, Glenn Orton, Paul Hartogh, Chris Jarchow, Thibault Cavalie, and Helmut Feuchtgruber  
 Observations of CO and HCN on Neptune with Herschel SPIRE

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**PS9.1 – Solar System Results from Herschel – Posters**

Convener: Paul Hartogh | Co-Conveners: Emmanuel Lellouch

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z13 EGU2011-11458  
**Michael Mommert**, Thomas G. Müller, Emmanuel Lellouch, Hermann Bönhardt, John Stansberry and the TNOs are Cool Team  
 TNOs are Cool: A Survey of the Transneptunian Region with Herschel Space Observatory
- Z14 EGU2011-12606  
**Maria I. Blecka**, Giuseppe Sindoni, Paul Hartogh, Christopher Jarchow, Emmanuel Lellouch and the Herschel HIFI Team  
 Observations of Carbon Monoxide in the Marian Atmosphere - the comparison of the measurements done by SW PFSMEX and HIFI on Herschel in the period 11-16 of April 2010
- Z15 EGU2011-1250  
**Armando González**, Paul Hartogh, Luisa-María Lara, and Christopher Jarchow  
 Photochemistry in Neptune's atmosphere: Constraints with Herschel Space Observatory's water observations
- Z16 EGU2011-8381  
**Christopher Jarchow**, Paul Hartogh, Emmanuel Lellouch, Raphael Moreno, Helmut Feuchtgruber, and Thibault Cavalie  
 Water Vapour in the Atmospheres of Uranus and Neptune Observed with the PACS and HIFI Instrument of the Herschel Space Observatory
- Z17 EGU2011-8743  
**Miriam Rengel**, Paul Hartogh, Hideo Sagawa, Emmanuel Lellouch, Helmut Feuchtgruber, Raphael Moreno, and Régis Courtin  
 Looking at the key atmospheric gases in Titan: PACS / Herschel Spectrum of Titan
- Z18 EGU2011-6235  
**Emmanuel Lellouch**, Raphael Moreno, Dominique Bockelée-Morvan, Nicolas Biver, Paul Hartogh, Timothy Cassidy, Miriam Rengel, Christopher Jarchow, Thibault Cavalié, and Jacques Crovisier  
 Observations of the Enceladus H<sub>2</sub>O torus with Herschel / HIFI
- Z19 EGU2011-10243  
**Pablo Santos-Sanz** and the TNOs are Cool-SDO Team  
 TNOs are Cool: A Survey of the Transneptunian Region - Physical Characterization of 15 Scattered Disk and Extended Scattered Disk Objects observed with Herschel/PACS

Wednesday, 06 April

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**ML3 – Jean Dominique Cassini Medal Lecture by Jean-Pierre Lebreton (co-listed) – Orals**

Convener: Tuija Pulkkinen

**Room: D**

Chairperson: Tuija Pulkkinen

12:15–13:15 EGU2011-14191

**Jean-Pierre Lebreton**

Highlights of ESA's Planetary Sciences Programme Achievements and a Glimpse into the Future (Jean Dominique Cassini Medal Lecture)

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**PS2.3 – Mercury – Posters**

Convener: Johannes Benkhoff | Co-Conveners: Ulrich Christensen

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: U. Christensen

Z1 EGU2011-2450

**Hajime Hayakawa**, Hironori Maejima and the BepiColombo MMO Project Team  
BepiColombo MMO status update

Z2 EGU2011-3582

**Francois Poulet**, Julian Rodriguez, Yuying Longval, Pascal Eng, Yves Langevin, Fabrizio Capaccioni, Gabriel Cremonese, Michele Dami, Gianrico Filacchione, and Pasquale Palombo  
Ground calibration of SIMBIO-SYS integrated experiment: scientific objectives and setup description

Z3 EGU2011-6548

**Isabel Egea-González**, Javier Ruiz, Carlos Fernández, Jean-Pierre Williams, Álvaro Márquez, and Luisa M. Lara

Depth of thrust faulting and ancient heat flows in the Kuiper region of Mercury from lobate scarp topography

Z4 EGU2011-10080

**Karin Bauch**, Harald Hiesinger, and Jörn Helbert

Insolation and Resulting Surface Temperatures of Study Regions on Mercury.

Z5 EGU2011-11468

**Martin Wieser**, Stas Barabash, Yoshifumi Futaana, Anil Bhardwaj, Kazushi Asamura, and Peter Wurz  
Backscattering of solar wind from the hermean surface: expected observations at the example of a high solar wind flux event at the moon.

Z6 EGU2011-11895

Elisabetta De Angelis, **Rosanna Rispoli**, Nello Vertolli, Marco D'Alessandro, Stefano Orsini, Stefano Selci, Andrea Maria Di Lellis, Roberto Leoni and the ELENA testing Team

Testing activities of the sensor BepiColombo/SERENA-ELENA at the MEFISTO facility

Z7 EGU2011-2221

**Stefano Orsini**, Valeria Magano, Anna Milillo, Alessandro Mura, and Francois Leblanc

Dynamical Evolution of Sodium Anisotropies in the Exosphere of Mercury

Z8 EGU2011-10575

**Alessandro Mura**, Peter Wurz, Stefano Orsini, and Anna Milillo

Mercury's Na and Ca tail: MonteCarlo model and data comparison

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**PS2.4 – Mars Science and Exploration – Orals**

Convener: Agustin Chicarro | Co-Conveners: Angelo Pio Rossi

**Room: 31**

Chairperson: n.n.

10:30–10:45 EGU2011-10249

**Attilio Rivoldini**, Tim Van Hoolst, Olivier Verhoeven, Antoine Mocquet, and Véronique Dehant  
Constraining the Interior Structure and Composition of Mars with Geodesy

10:45–11:00 EGU2011-2909

**François Civet** and Pascal Tarits

Study of Mars Global Surveyor data to infer Mars internal conductivity

11:00–11:15 EGU2011-13218

**Stephen Clifford**

Evidence for the Survival of Subsurface H<sub>2</sub>O in the Martian Equatorial Region to the Present Day.

- 11:15–11:30 EGU2011-12325  
**Luis Teodoro**, Richard C. Elphic, Vincent R. Eke, Ted L. Roush, Giuseppe A. Marzo, Adrian J. Brown, William C. Feldman, and Sylvestre Maurice  
 Characterizing the 3-D Water Distribution on the Mars Surface
- 11:30–12:00 EGU2011-12468  
**Wlodek Kofman**, Cyril Grima, Jeremie Mouginot, Alain Herique, Pierre Beck, and Antoine Pommerol  
 Mars surface materials from MARSIS and SHARAD radar reflectivity.
- 12:00–12:15 EGU2011-2736  
**Mohamed Ramy El Maarry**, Essam Heggy, and James Dohm  
 Assessment of a Possible Volcanic Paleolake at Apollinaris Patera, Mars: Constraints on the Composition of the Inner Caldera and Fan Deposits using the MRO Shallow Sounding Radar (SHARAD)

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**LUNCH BREAK**

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Chairperson: n.n.

- 13:30–13:45 EGU2011-5603  
**Cathy quantin**, Jessica Flahaut, Harold Clenet, Pascal Allemand, and Pierre Thomas  
 Major Subsurface discontinuity revealed by central uplifts of impact craters in the vicinity of Valles Marineris
- 13:45–14:00 EGU2011-7048  
**Petri Kostama** and Soile Kukkonen  
 Analysis of the Reull Vallis Upper Reaches and the Morpheos Basin in the Eastern Hellas Rim Region, Mars.
- 14:00–14:30 EGU2011-11313  
**Jean-Pierre Bibring**  
 Mars History: a reappraisal
- 14:30–14:45 EGU2011-11302  
**Anouck Ody**, François Poulet, Yves Langevin, Jean Pierre Bibring, Brigitte Gondet, John Carter, and Mathieu Vincendon  
 GLOBAL MINERALOGICAL MAPPING OF THE MARTIAN SURFACE FROM OMEGA/MEX
- 14:45–15:00 EGU2011-748  
**Nicolas Bost**, Frances Westall, Claire Ramboz, Frédéric Foucher, Derek Pullan, Iris Fleischer, Goestar Klingelhöfer, Michel Viso, Jorge Vago, and Tanja Zegers  
 ExoMars: Mars analogue rocks in the European lithotheque at Orleans

Chairperson: n.n.

- 15:30–15:45 EGU2011-12723  
**Valerie Ciarletti**, Stephen Clifford, Andre-Jean Vieau, Benjamin Lustrement, Rafik Hassen-Kodja, Philippe Cais, and Dirk Plettemeier  
 The 2018 ExoMars WISDOM GPR on Mt. Etna: First Field Test Results in a Mars Analogue Volcanic Environment
- 15:45–16:00 EGU2011-12549  
**Nadezda Evdokimova**, Alexander Rodin, Ruslan Kuzmin, and Anna Fedorova  
 Seasonal dynamics of Martian water cycle based on OMEGA/MEX data: regolith hydration and water vapor
- 16:00–16:15 EGU2011-11188  
**Cedric Gillmann**, Paul Tackley, Philippe Lognonné, and Manuel Moreira  
 The effects of degassing on the long term evolution of the Martian atmosphere.
- 16:15–16:30 EGU2011-1757  
**Beatriz Sánchez - Cano**, Sandro M. Radicella, Miguel Herraiz, Gracia Rodríguez - Caderot, and Olivier Witasse  
 A Mars M1 ionosphere layer empirical model based on MARSIS data.
- 16:30–16:45 EGU2011-7545  
**Sujun Zhang**, Jinsong Ping, Tingting Han, XiaoFei Mao, and Zhenjie Hong  
 Implementation of the earth-based planetary radio occultation inversion technique in Shanghai Astronomical Observatory
- 16:45–17:15 EGU2011-7847  
**Richard Ambrosi**, Hugo Williams, Steven Howe, Nigel Bannister, John Bridges, Marie-Claire Perkinson, Jaime Reed, and Robert O'Brien  
 The Mars Hopper: an impulse driven, long-range, long-lived mobile platform utilising in-situ martian resources

**PS2.4 – Mars Science and Exploration – Posters**

Convener: Agustin Chicarro | Co-Conveners: Angelo Pio Rossi

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Agustin Chicarro

- Z9 EGU2011-3182  
**Marlene Bamberg**, Ralf Jaumann, Hartmut Asche, Andrea Nass, and Daniela Tirsch  
Young basaltic deposits in impact craters at the south-eastern extension of Syrtis Major, Mars: preliminary report
- Z10 EGU2011-2902  
**Maud Barthelemy**, Santa Martinez, David Heather, Jose Luis Vazquez, Nicolas Manaud, Iñaki Ortiz, Christophe Arviset, and Ignacio Leon  
The PSA: Planetary Science Archive
- Z11 EGU2011-5760  
**Jean-Yves Chaufray**, Francisco Gonzales-Galindo, Francois Forget, Miguel Lopez-Valverde, Francois Leblanc, Manabu Yagi, Ronan Modolo, Pierre-Louis Blelly, and Olivier Witasse  
Mars- Solar wind interaction: 3D GCM-Ionosphere model to describe the Martian ionospheric dynamics and its coupling with neutral atmosphere.
- Z12 EGU2011-5916  
**Agustin Chicarro**  
The European Robotic Exploration of the Planet Mars
- Z13 EGU2011-13077  
**Peter Dorninger**, Balázs Székely, and Clemens Nothegger  
Automated Detection and Analysis of Mars Surface Structures by Segmentation
- Z14 EGU2011-300  
**Jessica Flahaut**, Cathy Quantin, John Mustard, Harold Clenet, Pascal Allemand, Janette Wilson, and Pierre Thomas  
Evidence of Preserved Noachian Crust and Major Geologic Transitions in the Walls of Valles Marineris, Mars.
- Z15 EGU2011-8662  
**Felipe Gómez**, Javier Gómez-Elvira, Mari Paz Zorzano-Mier, Carlos Armiens-Aparicio, Jose Antonio Rodríguez-Manfredi, and Eduardo Sebastián  
Habitability parameters determination on Mars surface with REMS (MSL meteorological station).
- Z16 EGU2011-3741  
**Haraldur Páll Gunnlaugsson**, Kristine Albers Olsen, Morten Bo Madsen, and Per Nørnberg  
Mössbauer Spectroscopy and Electron Microscopy Investigation of the Martian Meteorite Dar al Gani 1037
- Z17 EGU2011-4881  
**Ruslan Kuzmin**, Elena Zabalueva, Nadejda Evdokimova, Philip Christensen, Maxim Litvak, and Igor' Mitrofanov  
Evidences of the inter-years and seasonal variations of the water ice content within the surficial layer of the Martian soil revealed based on the TES, the HEND and the OMEGA data analysis
- Z18 EGU2011-4443  
**Maxim Litvak**, Igor Mitrofanov and the DAN Team  
Layering structure of Martian subsurface from DAN instrument onboard MSL rover
- Z19 EGU2011-11735  
**Patrick Martin** and Damhnait Gleeson  
A Mars Landing Requirements Database to Support ExoMars Site Selection
- Z20 EGU2011-9292  
**Gregorio J. Molina-Cuberos**, Kerstin Peter, Olivier Witasse, María J Núñez, and Martin Pätzold  
Meteor sporadic layers at Mars
- Z21 EGU2011-3280  
**Andreas Petau**, Daniela Tirsch, Muna Al-Samir, and Ralf Jaumann  
Drainage patterns on Mars in comparison with their analogue valleys on Earth
- Z22 EGU2011-7182  
Jouko Raitala and **Veli-Petri Kostama**  
Marker strata and the Lus light blocks, Mars
- Z23 EGU2011-6211  
**María Ramírez-Nicolás**, Luis Vázquez, David Usero, and Miguel Herraiz  
Charged Particles in the Crustal Magnetic Field of Mars
- Z24 EGU2011-1878  
**Marco Restano**, Arturo Masdea, Marco Mastrogiuseppe, Giovanni Picardi, and Roberto Seu  
Image resolution enhancing in the MARSIS experiment
- Z25 EGU2011-6176  
**Pilar Romero** and Juan Jose Silva  
Optimal Longitudes Determination for the Station Keeping for Areostationary Satellites

- Z26 EGU2011-6470  
Pilar Romero, **Gonzalo Barderas**, Jose Luis Vazquez-Poletti, and Ignacio M. Llorente  
Temporal Areographic Patterns of Phobos Eclipses on Mars for the Metnet Precursor Mission
- Z27 EGU2011-4590  
**Angelo Pio Rossi**, Monica Pondrelli, Stephan van Gasselt, and Vikram Unnithan  
Geological variability of Equatorial Layered Deposits in Arabia Terra, Mars
- Z28 EGU2011-6822  
**Maria Shibanova** and Evgeniy Lazarev  
Mars moons relief mapping and modelling: problems and solutions
- Z29 EGU2011-11345  
**Sebastian Walter**, Randolph L. Kirk, Patrick C. McGuire, and Gerhard Neukum  
Systematic Photometric Modeling for Correcting Topographic Shading Effects on HRSC Imagery
- Z30 EGU2011-12253  
Benjamin Weiss, **Christopher Russell**, Carol Raymond, Neil Murphy, Eduardo Lima, Maria Zuber, Robert Strangeway, and Joseph Kirschvink  
Paleomagnetic Studies from a Mars Rover
- Z31 EGU2011-7364  
**Lorenz Wendt**, Christoph Gross, Thomas Kneissl, Mariam Sowe, Jean-Philippe Combe, Laetitia LeDeit, Patrick C. McGuire, and Gerhard Neukum  
Sulfates and Ferric Oxides in Ophir Chasma, Mars
- Z32 EGU2011-11031  
**Yannick Willame**, Rachel Drummond, Cédric Depiesse, Didier Gillotay, Ann Carine Vandaele, Manish Patel, and Mark Leese  
NOMAD/UVIS Sensitivity investigation for Mars observations
- Z33 EGU2011-3952  
**Manabu Yagi**, Francois Leblanc, Jean-Yves Chaufray, Ronan Modolo, Marco Mancini, and Francisco Gonzalez-Galindo  
Three dimensional Mars' exosphere : multi-species thermal and nonthermal models

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#### PS2.5 – The brines of Mars and their implications for geochemistry and habitability – Orals

Convener: Nilton Renno | Co-Conveners: Diedrich Moehlmann

##### Room: 32

Chairperson: Nilton Renno, Diedrich Moehlmann

- 08:30–08:45 EGU2011-1081  
**Nilton Renno** and Manish Mehta  
Photometric and spectral evidence for deliquescence and liquid saline water on Mars
- 08:45–09:00 EGU2011-1838  
**Wolfgang Voigt** and Erik Hennings  
Freezing curves of salt - water systems and implications for possible cryo-brines on Mars
- 09:00–09:15 EGU2011-8346  
**Samuel Kounaves**  
Determination of the Parent Salt for the Perchlorate Ion Measured at the Phoenix Mars Lander Site
- 09:15–09:30 EGU2011-1485  
**Diedrich Moehlmann**  
Latitudinal distribution of conditions to support the formation of temporary liquid cryobrine on Mars
- 09:30–09:45 EGU2011-7353  
**Akos Kereszturi**, Szaniszló Berczi, Andras Horvath, Tamas Pocs, Andras Sik, and Eors Szathmary  
Dark Dune Spots as favorable locations for brine formation on Mars
- 09:45–10:00 EGU2011-1968  
**Jacek Wierzchos**, Alfonso F. Dávila, Isabel M. Sánchez-Almazo, Asunción de los Ríos, Sergio Valea, Mieczyslaw Hajnos, Christopher P. McKay, Octavio Artieda, and Carmen Ascaso  
Microscopic saline ponds are oasis for photosynthetic life in the driest place on the Earth: implications for putative Martian biosphere
- 10:00–10:15 EGU2011-4730  
**Helga Stan-Lotter**  
Halophilic microbial life on Mars?

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#### PS2.5 – The brines of Mars and their implications for geochemistry and habitability – Posters

Convener: Nilton Renno | Co-Conveners: Diedrich Moehlmann

##### Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Nilton Renno, Diedrich Moehlmann



- Z34 EGU2011-799  
**Galina V. Khokhlova**, Elena V. Spirina, Lada E. Petrovskaya, and David A. Gilichinsky  
Microbial biodiversity of Yamal Peninsula overcooled water brines within permafrost
- Z35 EGU2011-7565  
**Nilton Renno**, Harvey Elliott, Bruce Block, and Robert Gillespie  
Development of an environmental chamber for studying the brines of the Mars Phoenix landing site
- Z36 EGU2011-13120  
**Antonio Sansano**, Julia Guerrero, Rafael Navarro, Jesus Medina, and Fernando Rull  
Laboratory analysis of sulfate precipitation processes from acidic brines using combined Raman and LIBS spectroscopy
- Z37 EGU2011-8167  
**Felipe Gómez**, José Antonio Rodríguez-Manfredi, and Ricardo Amils  
Protected endolithic niches on Earth as models for Habitability on Mars
- Z38 EGU2011-2294  
**Jackie Goordial**, Lyle Whyte, Tom Neiderberger, Nadia Mykytczuk, Nancy Perreault, Barbara Sherwood Lollar, Dale Andersen, Charles Greer, and Wayne Pollard  
Microbial communities in subzero brine environments in the Canadian high Arctic.
- Z39 EGU2011-8890  
**Nina Feyh**, Ulrike Reichelt, and Ulrich Szewzyk  
The potential of marine bacteria to grow in Mars-relevant brines
- Z40 EGU2011-2630  
**Jochen Jänchen**  
Water vapour interaction of hygroscopic salts with respect to formation of liquid phases at Martian surface conditions
- Z41 EGU2011-7046  
**Susanne Schröder**, Sergey G. Pavlov, Isabelle Rauschenbach, Elmar K. Jessberger, and Heinz-Wilhelm Hübers  
LIBS studies on salts and frozen salt solutions under Martian conditions

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### PS3.0 – Outer Planets – Orals

Convener: Jean-Pierre Lebreton | Co-Conveners: Sushil K. Atreya, Athena Coustenis, Glenn Orton

**Room: 30**

Chairperson: n.n.

- 08:30–08:45 EGU2011-561  
**Oksana Shalygina**, Yuri Shkuratov, Viktor Korokhin, Vadim Kaydash, Nikolay Opanasenko, Yuri Velikodsky, Elena Petrova, Sanjay Limaye, and Eugene Shalygin  
Polarimetry of Jupiter's atmosphere and the surfaces of the Galilean satellites: its significance and the advantages of a space experiment
- 08:45–09:00 EGU2011-2104  
**Agustin Sanchez-Lavega**, Jon Legarreta, Josep Maria Gomez, John H. Rogers and the PVOL-IOPW Team  
Jupiter's 2010 South Equatorial Belt Disturbance: Observations in the visual range and non-linear models.
- 09:00–09:15 EGU2011-2130  
**Teresa del Río-Gaztelurrutia**, Agustín Sánchez-Lavega, Ricardo Hueso, Santiago Pérez-Hoyos, Josep M Gómez, Enrique García-Melendo and the PVOL-IOPW Team  
The December 2010 outbreak of a major storm in Saturn's atmosphere
- 09:15–09:30 EGU2011-1638  
Christopher Russell, **Hao Cao**, Steve Joy, Ulrich Christensen, and Michele Dougherty  
Implications for the Interiors of Jupiter and Saturn from their Very Different Magnetic Fields
- 09:30–09:45 EGU2011-4199  
**Krishan Khurana**, Michele Dougherty, and Christopher Russell  
Observations of current sheet tilt in Saturn's magnetosphere from solstice to equinox
- 09:45–10:00 EGU2011-5897  
**Aikaterini Radioti**, Denis Grodent, Jean-Claude Gérard, Steve Milan, Jacques Gustin, Bertrand Bonfond, and Wayne Pryor  
Bifurcations of the main auroral ring at Saturn: ionospheric signature of flux transfer events?
- 10:00–10:15 EGU2011-8726  
**Andrew Kopf** and Donald Gurnett  
A Statistical Study of Kilometric Radiation Fine Structure Striations Observed at Jupiter and Saturn

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### PS3.1 – Satellites and rings of the outer planets – Orals

Convener: Linda Spilker | Co-Conveners: Sushil K. Atreya, Jean-Pierre Lebreton, Glenn Orton, Hauke Hussmann,

Athena Coustenis

**Room: 30**

Chairperson: n.n.

- 10:30–10:45 EGU2011-1224  
**Tetsuya Tokano**, Tim Van Hoolst, and Özgür Karatekin  
 Polar motion of Titan forced by the atmosphere
- 10:45–11:00 EGU2011-3841  
**F. Michael Flasar**, Richard Achterberg, Donald Jennings, and Paul Schinder  
 Titan's emergence from winter
- 11:00–11:15 EGU2011-12909  
**Erika L. Barth**  
 The Role of Ethane in Titan's Convective Clouds
- 11:15–11:30 EGU2011-13798  
**Eliot Young**, Jason Barnes, Carrie Anderson, Robert Samuelson, and Erika Barth  
 A season of methane distributions on Titan
- 11:30–11:45 EGU2011-12652  
**Darrell F. Strobel**  
 The Molecular Hydrogen Mole Fraction Profile in Titan's Atmosphere: A Case for Magnetospheric Power Input?
- 11:45–12:00 EGU2011-5216  
**Sushil K. Atreya** and Hasso B. Niemann  
 Titan's atmosphere reflected in its surface

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**LUNCH BREAK**

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Chairperson: n.n.

- 13:30–13:45 EGU2011-11076  
**Leonid Gurvits**, Sergei Pogrebenko, Giuseppe Cimò, Dmitry Duev, Peter Fridman, and Guifre Molera Calvés  
 Radio astronomy segments of prospective planetary science and exploration missions
- 13:45–14:00 EGU2011-4110  
**Ralf Jaumann**  
 The Geology of Tita: a summary
- 14:00–14:15 EGU2011-1164  
**Valeria Cottini**, Conor A. Nixon, Donald E. Jennings, Remco de Kok, Nicholas A. Teanby, Patrick G. J. Irwin, and F. Michael Flasar  
 Spatial and temporal variations in Titan's surface temperatures from Cassini CIRS observations
- 14:15–14:30 EGU2011-5356  
**Thomas R. Spilker**, Philip Nicholson, Matthew Tiscareno, Linda Spilker and the The SRO Study Team  
 Saturn Ring Observer: Less Challenging Than Previously Thought
- 14:30–14:45 EGU2011-4081  
**Cécile Ferrari**  
 The role of shadows in Saturn's rings : a CIRS-CASSINI perspective.
- 14:45–15:00 EGU2011-1600  
**Matthew Tiscareno**  
 The changing orbits of "propeller" moons in Saturn's rings
- 15:00–15:15 EGU2011-13176  
**Miodrag Sremcevic**, Larry Esposito, and Joshua Colwell  
 Spatially resolved self-gravity wakes in Saturn's A and B rings from Cassini UVIS occultations

Chairperson: n.n.

- 15:30–15:45 EGU2011-11305  
**Nicolas Rambaux**  
 Rotation and libration of icy satellites
- 15:45–16:00 EGU2011-12618  
**Marco Ducci**, John W. Armstrong, Sami W. Asmar, Luciano Iess, Robert Jacobson, Nicole Rappaport, David Stevenson, and Paolo Tortora  
 Enceladus' Gravity Field inferred from Range Rate Measurements of the Cassini Spacecraft
- 16:00–16:15 EGU2011-4267  
**Dennis L. Matson**, Julie C. Castillo-Rogez, Torrence V. Johnson, Jonathan I. Lunine, and Ashley G. Davies  
 Enceladus' Hydrothermal Activity

- 16:15–16:30 EGU2011-10620  
**Jürgen Schmidt**, Frank Postberg, Jon Hilier, Sascha Kempf, and Ralf Srama  
Compositional profile of the Enceladus dust plume
- 16:30–16:45 EGU2011-2894  
**Thomas Roatsch**, Elke Kersten, Marita Wählisch, Angelika Hoffmeister, Frank Preusker, Katrin Stephan,  
and Ralf Jaumann  
New Cartographic Products and Composition Maps of the Icy Saturnian Satellites based on Cassini ISS  
and VIMS data
- 16:45–17:00 EGU2011-13271  
**Amy Barr**  
Formation of the Ganymede/Callisto Dichotomy by Impacts during the Late Heavy Bombardment
- 17:00–17:15 EGU2011-7795  
**Hermes Miguel Jara Orue** and Bert L.A. Vermeersen  
Effect of obliquity on viscoelastic deformation and stresses at Europa's surface

## Thursday, 07 April

**PS2.3 – Mercury – Orals**

Convener: Johannes Benkhoff | Co-Conveners: Ulrich Christensen

**Room: 29**

Chairperson: n.n.

- 10:30–10:45 EGU2011-11251  
**Maria Zuber** and the Maria Zuber Team  
Initial Orbital Phase Results of the MESSENGER Geophysics Investigation
- 10:45–11:00 EGU2011-5202  
**Menelaos Sarantos**, Rosemary Killen, William McClintock, Ronald Vervack, Jr, Mehdi Benna, James Slavin, and Sean Solomon  
MESSENGER Observations and Models of Exospheric Magnesium on Mercury on the Eve of Orbit Insertion
- 11:00–11:15 EGU2011-11231  
Valerio Iafolla, David M. Lucchesi, Sergio Nozzoli, Francesco Santoli, **Roberto Peron**, Emiliano Fiorenza, and Carlo Lefevre  
The BepiColombo mission to Mercury and the role of the ISA accelerometer in the Radio Science Experiments: status and perspectives
- 11:15–11:30 EGU2011-3058  
**Benoît Noyelles**, Julien Dufey, and Anne Lemaitre  
Modeling the rotation of Mercury including pressure coupling
- 11:30–11:45 EGU2011-13565  
**Paolo Tortora**, Alessandro Bevilacqua, Ludovico Carozza, Antonio Genova, Alessandro Gherardi, Luciano Iess, Rachele Meriggiola, Alessandra Palli, Pasquale Palumbo, and Michele Zusi  
Simulation of BepiColombo's Mercury Rotation Experiment
- 11:45–12:00 EGU2011-12152  
**Antonio Genova**, Manuela Marabucci, and Luciano Iess  
BepiColombo radio science experiment: determination of Mercury's gravity field
- 12:00–12:15 EGU2011-1420  
**Dean L. Talboys**, Emma J. Bunce, George W. Fraser, Adrian Martindale, and Yasuhito Narita  
The Mercury Imaging X-ray Spectrometer (MIXS) on BepiColombo as a Probe of Mercury's Magnetosphere

**PS3.0 – Outer Planets – Posters**

Convener: Jean-Pierre Lebreton | Co-Conveners: Sushil K. Atreya, Athena Coustenis, Glenn Orton

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Jean-Pierre Lebreton

- Z11 EGU2011-1291  
**Thomas Magner**, Robert Pappalardo, Brian Cooke, Greg Garner, Thomas Gavin, Kenneth Hibbard, Louise Prockter, and David Senske  
The Europa Jupiter System Mission Jupiter Europa Orbiter Mission Overview
- Z12 EGU2011-8739  
**Chris Arridge** and the Uranus Pathfinder Team  
Uranus Pathfinder: Exploring the Origins and Evolution of Ice Giant Planets
- Z13 EGU2011-9494  
Anthony Colaprete, **Thomas R. Spilker**, David Atkinson, Linda Spilker, Tibor Balint, Athena Coustenis, Robert Frampton, Reta Beebe, and Kim Reh  
A Shallow Probe Mission to Saturn
- Z14 EGU2011-9692  
**Thomas R. Spilker**, Reta Beebe, Heidi Hammel, Amy Simon-Miller, Kunio Sayanagi, David Atkinson, Anthony Colaprete, Leonard Dudzinski, and Kim Reh  
Saturn Probe Mission Concepts: US 2012 Decadal Survey Studies
- Z15 EGU2011-7372  
**Angioletta Coradini**, Alberto Adriani, Gianrico Filacchione, Davide Grassi, Maria Luisa Moriconi, Bianca Maria Dinelli, Raffaella Noschese, Andrea Cicchetti, Claudio Pasqui, and Alessandro Bini  
The Jovian Infrared Auroral Mapper (JIRAM)
- Z16 EGU2011-12735  
**John Cooper**, Alexander Lipatov, Edward Sittler, and Steven Sturmer  
Saturn Neutron Exosphere as Source for Inner and Innermost Radiation Belts

- Z17 EGU2011-6652  
**Nicholas Achilleos**, Christopher Smith, Chihiro Tao, Sarah Badman, and Alan Aylward  
Magnetospheric Driving of Saturn's Thermosphere during Storm-Like Events
- Z18 EGU2011-1418  
**Dean L. Talboys**, Emma J. Bunce, Stanley W. H. Cowley, Christopher S. Arridge, Andrew J. Coates, and Michele K. Dougherty  
Statistical Characteristics of Field-aligned Currents in Saturn's Nightside Magnetosphere
- Z19 EGU2011-2434  
**Claudia-Veronika Meister**, Christoph Maurer, and Dieter H.H. Hoffmann  
Modeling of the anisotropic magnetosheaths of Jupiter, Saturn, and Neptune
- Z20 EGU2011-6651  
**Japheth Yates**, Nicholas Achilleos, and Patrick Guio  
Influence of transient magnetospheric compressions on thermospheric flows at Jupiter
- Z21 EGU2011-3285  
**Michael Le Bars**, Oriane Aubert, Patrice Le Gal, Philip Marcus, Cyprien Morize, and Alban Sauret  
Two prevailing features of Jupiter's fluid mechanics studied in laboratory experiments: the stability of the Great Red Spot and the zonal winds generation by tides
- Z22 EGU2011-5558  
Santiago Perez-Hoyos, **Agustin Sanchez-Lavega**, Jose Francisco Sanz-Requena, Naiara Barrado-Izagirre, and Jose Felix Rojas  
Vertical cloud structure models of Jupiter's South Equatorial Belt fade
- Z23 EGU2011-10849  
**Philippe Garnier**, Dominique Toubanc, Romain Rousseau, Iannis Dandouras, Anna Kotova, Pontus Brandt, Kostas Dialynas, and Stamatios Krimigis  
Modeling the satellite particles in planetary exospheres : application to Titan
- Z24 EGU2011-10982  
**Antony Allen**, Essam Marouf, Ingo Mueller-Wodarg, and Paolo Tortora  
An On-Board Receiver on EJSM for Jupiter Atmospheric Science and Satellite Surface Scattering Experiments

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### PS3.1 – Satellites and rings of the outer planets – Posters

Convener: Linda Spilker | Co-Conveners: Sushil K. Atreya, Jean-Pierre Lebreton, Glenn Orton, Hauke Hussmann, Athena Coustenis

#### Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z25 EGU2011-12516  
**Georgios Bampasidis** and the and 11 co-authors Team  
Seasonal and latitudinal variations of Titan's trace stratospheric gases from Cassini/CIRS and other observations
- Z26 EGU2011-7525  
**Odile Dutuit**, Véronique Vuitton, Roland Thissen, Arpad Somogyi, and Mark A. Smith  
Structural Analysis of Titan's Tholins by Very-High Resolution Mass Spectrometry
- Z27 EGU2011-4636  
**Marie-Claire Gazeau**, Yves Bénilan, Emmanuel Arzoumanian, Et-Touhami Es-Sebbar, Antoine Jolly, and Carlos D. Pintassilgo  
Formation of HCN and NH<sub>3</sub> as primary compounds of Titan's atmosphere simulations using N<sub>2</sub>-CH<sub>4</sub> afterglow plasma
- Z28 EGU2011-5115  
**Edward Sittler**, Richard Hartle, John Cooper, Marcus Shappirio, Robert Johnson, and David Simpson  
Ion Composition of Titan's Ionosphere Observed during T9 Magnetotail Crossing
- Z29 EGU2011-846  
**Anezina Solomonidou**, Mathieu Hirtzig, Emmanuel Bratsolis, Georgios Bampasidis, Athena Coustenis, Pierre Drossart, Stephane Le Mouélic, Christophe Sotin, Xenophon Moussas, Konstantinos Kyriakopoulos, and Karen St. Seymour  
Potentially active regions on Titan: Application of differential spectroscopy on Cassini/VIMS data and correlation with filtered SAR data.
- Z30 EGU2011-10201  
**Mathieu Hirtzig**, Athena Coustenis, Bruno Bézard, Catherine deBergh, Anezina Solomonidou, Georgios Bampasidis, Emmanuel Bratsolis, Michel Combes, Pascal Rannou, and Pierre Drossart  
Uncovering Titan's Surface Spectrum by Modelling Cassini/VIMS and Earth-Based near-Infrared Spectro-Images

- Z31 EGU2011-13796  
Emmanuel Bratsolis, Bampasidis Georgios, **Anezina Solomonidou**, Athena Coustenis, and Mathieu Hirtzig  
A method to investigate the temporal variation of lakes on Titan using Cassini Synthetic Aperture Radar images
- Z32 EGU2011-5334  
**Linda Spilker**, Estelle Deau, and Ryuji Morishima  
Saturn ring temperature variations with changing geometries
- Z33 EGU2011-13484  
**Nicole Albers**, Miodrag Sremcevic, and Larry Esposito  
Moon-influenced ringlets and edges in Saturn's rings
- Z34 EGU2011-10064  
**Mauro Ciarniello**, Fabrizio Capaccioni, Gianrico Filacchione, Philip D. Nicholson, Roger N. Clark, Priscilla Cerroni, Angioletta Coradini, Robert H. Brown, Bonnie J. Buratti, and Matthew M. Hedman  
Saturn's rings spectrophotometric modeling by CASSINI-VIMS data
- Z35 EGU2011-4212  
**Alexandre Solé**, Ignasi Casanova, Athena Coustenis, Anezina Solomonidou, and Georgios Bampasidis  
The icy moons of the outer Solar System: A global perspective
- Z36 EGU2011-3575  
**Nico Schmedemann** and Gerhard Neukum  
Surface Ages and Impact Crater Size-Frequency Distribution (SFD) on Mimas
- Z37 EGU2011-3053  
**Marie Behoukova**, Gabriel Tobie, Jonathan Besserer, Ondrej Cadek, and Gael Choblet  
Thermal stability of internal liquid water reservoir at Enceladus' South pole
- Z38 EGU2011-4252  
**Irina Kulyk**  
Analysis of the surface dichotomy of Tethys, Dione, and Rhea based on the photometric and polarimetric measurements at low phase angles
- Z39 EGU2011-7810  
**Roland J. Wagner**, Gerhard Neukum, Bernd Giese, Thomas Roatsch, Tilmann Denk, Ursula Wolf, and Carolyn C. Porco  
Imaging and Geologic Mapping of Tectonic Features on the Saturnian Satellites Dione and Rhea by the ISS Cameras in the Cassini Equinox and Solstice Missions
- Z40 EGU2011-7907  
**Tim Van Hoolst**, Rose-Marie Baland, and Attilio Rivoldini  
On the libration and tides of synchronously rotating icy satellites
- Z41 EGU2011-13616  
**Ralf Srama**, Sascha Kempf, Frank Postberg, Mihaly Horanyi, Zoltan Sternovsky, Jürgen Schmidt, Harald Krüger, Roland Thissen, Anna Mocker, and Eberhard Gruen  
Dust measurements with EJSM
- Z42 EGU2011-7722  
**Wes Patterson**, Chris Paranicas, and Louise Prockter  
Characterizing charged particle weathering of Europa's surface by location and depth
- Z43 EGU2011-10311  
Christina Plainaki, Anna Milillo, **Alessandro Mura**, Stefano Orsini, and Stefano Massetti  
The exosphere of Europa: role of photolysis and radiolysis
- Z44 EGU2011-12823  
**David Lawrence**, Patrick Peplowski, Richard Ambrosi, William Feldman, Olivier Gasnault, Karl Hibbitts, and Sylvestre Maurice  
Measuring Planetary Composition at Depth: Neutron Measurements at Ganymede

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**PS5.0/ST6.1 – Planetary Plasma Physics, including electrodynamics of induced magnetospheres (co-organized) –**

Posters

Convener: Esa Kallio | Co-Conveners: Philippe Garnier, Hermann Opgenoorth, Mark Lester

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z45 EGU2011-1065  
**Magda Delva**, Riku Jarvinen, Esa Kallio, César Bertucci, and Christian Mazelle  
On symmetry of the Venus neutral hydrogen exosphere and PCW occurrence
- Z46 EGU2011-7659  
**Riku Jarvinen**, Esa Kallio, Andrei Fedorov, Tielong Zhang, Stas Barabash, Sergey Dyadechkin, Pekka Janhunen, and Ilkka Sillanpää  
Energization and dawn-dusk asymmetries of the escaping pickup ions at unmagnetized planets

- Z47 EGU2011-214  
**Aleksey Kireev** and Alexander Krymskii  
Distribution of currents and convection in the ionospheres of Venus and Mars.
- Z48 EGU2011-3834  
Tess Mcenulty, **Janet Luhmann**, Imke Depater, Tielong Zhang, Christopher Russell, Lan Jian, Yingjuan Ma, Niklas Edberg, Edik Dubinin, and Stas Barabash  
VEX Observations of Heliospheric Structures Influencing Planetary Ion Escape
- Z49 EGU2011-3979  
**Kei Masunaga**, Yoshifumi Futaana, Masatoshi Yamauchi, Stas Barabash, Tielong Zhang, Naoki Terada, and Shoichi Okano  
Ion outflow channels around Venus controlled by IMF directions
- Z50 EGU2011-9525  
**Hanying Wei**, Christopher T. Russell, Jillian T. M. Daniels, Tielong Zhang, Rorbert J. Strangeway, and Janet G. Luhmann  
Electromagnetic Waves observed near the Ionopause of Venus
- Z51 EGU2011-10658  
**Michael Zellinger**, Ute Möstl, Nikolai Erkaev, and Helfried Biernat  
The Influence of Gravity on the Evolution of the Kelvin-Helmholtz Instability around Venus
- Z52 EGU2011-3494  
**Valeriy Tenishev**, Kenneth Hansen, Michael Combi, Martin Rubin, and Tamas Gombosi  
Modeling the neutral exosphere and the energy distribution of pick-up ions of lunar origin
- Z53 EGU2011-7198  
**Graziella Branduardi-Raymont** and the AXIOM Collaboration Team  
AXIOM: Advanced X-ray Imaging Of the Magnetosphere
- Z54 EGU2011-4393  
**Susan McKenna-Lawlor**, Esa Kallio, and Riku Jarvinen  
Magnetic shadowing of high energy ions at Mars: SLED/Phobos-2 observations and hybrid model simulations
- Z55 EGU2011-4397  
**Esa Kallio** and Stas Barabash  
Magnetized Mars: Spatial distribution of oxygen ions
- Z56 EGU2011-7784  
**Sergey Dyadechkin**, Esa Kallio, Riku Jarvinen, and Pekka Janhunen  
Curvilinear coordinate introduction in the HYB hybrid model
- Z57 EGU2011-262  
**Catherine Dieval**, Stas Barabash, Hans Nilsson, Gabriella Stenberg, Yoshifumi Futaana, Mats Holmström, Andrei Fedorov, and Rudy Frahm  
A statistical study of proton precipitation at Mars
- Z58 EGU2011-4303  
**Yasubumi Kubota**, Kiyoshi Maezawa, and Hidekatsu Jin  
The tail formation and ion escape processes for the Martian ionosphere: The comparison between no IMF case and finite IMF cases
- Z59 EGU2011-5915  
**Ronan Modolo**, Marco Mancini, Francois Leblanc, Gerard Chanteur, Manabu Yagi, and Jean-Yves Chaufray  
Modeling of the solar wind interaction with Mars: first results of high spatial resolution hybrid simulations.
- Z60 EGU2011-10085  
**Emilie Richer**, Gérard M. Chanteur, Ronan Modolo, and Eduard Dubinin  
Properties of reflected Solar Wind protons on the Martian Bow Shock: investigations by means of 3-dimensional simulations
- Z61 EGU2011-5494  
**Chia-Yu Tzou**, Norbert Krupp, and Wing-Huen Ip  
Energetic Particle Injection Events in the Saturnian Magnetosphere
- Z62 EGU2011-10818  
**Philippe Garnier**, Jan-Erik Wahlund, Madeleine Holmberg, Michiko Morooka, Donald Gurnett, and William Kurth  
Impact of energetic electrons on the Cassini RPWS Langmuir probe at Saturn
- Z63 EGU2011-7609  
**Zoltan Nemeth**, Karoly Szego, Geza Erdos, Lajos Foldy, and Zsofia Bebesi  
The formation of plasma structures in the magnetodisk of Saturn
- Z64 EGU2011-9086  
Katherine Ramer, **Margaret Kivelson**, and Nick Sergis  
Force Balance in Saturn's Ring Current
- Z65 EGU2011-2745  
**Ilkka Sillanpää**, Robert Johnson, Esa Kallio, and Riku Jarvinen  
New Ion Impact Simulations for Titan

- Z66 EGU2011-1356  
**Niklas Edberg**, Karin Ågren, Jan-Erik Wahlund, Michiko Morooka, David Andrews, Stan Cowley, Anne Wellbrock, Andrew Coates, Cesar Bertucci, and Michele Dougherty  
 Observations of a structured ionospheric outflow plume at Titan
- Z67 EGU2011-4744  
**Sergey Zhdanov** and Gregor Morfill  
 Diagnostics of naturally excited waves in a dynamically active complex (dusty) plasma
- Z68 EGU2011-6612  
 Christiane Helling, **Aline A. Vidotto**, and Moria Jardine  
 Bow-shocks in transit observations of extrasolar planets

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**PS5.1 – Moon-Magnetosphere Interactions – Orals**

Convener: Emma Bunce | Co-Conveners: Wing-Huen Ip, Norbert Krupp

**Room: 29**

Chairperson: Emma Bunce

- 13:30–14:00 EGU2011-2799  
**Margaret G. Kivelson**  
 Giant magnetospheres - small moons: Who's in the driver's seat?
- 14:00–14:15 EGU2011-555  
**Xianzhe Jia**, Raymond Walker, Margaret Kivelson, Krishan Khurana, and Jon Linker  
 Global configuration and dynamics of Ganymede's magnetosphere: Three-dimensional MHD simulations
- 14:15–14:30 EGU2011-1112  
**Bertrand Bonfond**  
 At the other end of the field lines: the satellite footprints
- 14:30–14:45 EGU2011-7883  
**Elias Roussos**, Norbert Krupp, Chris Paranicas, Michelle F. Thomsen, Peter Kollmann, Donald G. Mitchell, Stamatios M. Krimigis, and Geraint H. Jones  
 Moon-magnetosphere interaction signatures as tools for studying the magnetospheres of outer planets
- 14:45–15:00 EGU2011-5075  
**John Cooper**, Bruce Fegley, Alexander Lipatov, John Richardson, and Edward Sittler  
 Compositional Impact of Io Volcanic Emissions on Jupiter's Magnetosphere and the Icy Galilean Moons
- 15:00–15:15 EGU2011-9463  
**Zsofia Bebcsi**, Norbert Krupp, Karoly Szego, Geza Erdos, Zoltan Nemeth, Donald G. Mitchell, Stamatios M. Krimigis, and David T. Young  
 Energetic electron precipitation at Titan

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**PS5.1 – Moon-Magnetosphere Interactions – Posters**

Convener: Emma Bunce | Co-Conveners: Wing-Huen Ip, Norbert Krupp

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Norbert Krupp

- Z69 EGU2011-2583  
**Nicolas André**, Renaud Allieux, Baptiste Cecconi, Andrei Fedorov, and Philippe Louarn  
 Identification of Ganymede's magnetospheric regions and associated plasma processes from Galileo multiple flyby observations
- Z70 EGU2011-4583  
**Mizuki Yoneda**, Fuminori Tsuchiya, Hiroaki Misawa, Chihiro Tao, Masato Kagitani, and Shoichi Okano  
 Do enhancements in Io's volcanic activity weaken Jupiter's magnetospheric activity?
- Z71 EGU2011-5108  
**Edward Sittler**, John Cooper, Richard Hartle, William Paterson, Paul Mahaffy, Alexander Lipatov, Nick Paschalidis, Mike Coplan, Tim Cassidy, and Peter Wurz  
 Plasma IMS Composition Measurements for Europa, Ganymede and the Jovian System
- Z72 EGU2011-11149  
**Norbert Krupp**, Elias Roussos, Peter Kollmann, Geraint Jones, Chris Arridge, Chris Paranicas, Donald Mitchell, Stamatios Krimigis, and Krishan Khurana  
 Energetic particles in the vicinity of Rhea compared to Enceladus and Dione: Cassini MIMI/LEMMS results
- Z73 EGU2011-11620  
**Stefano Massetti**, Anna Milillo, Xianzhe Jia, Alessandro Mura, Stefano Orsini, Christina Plainaki, and Valeria Mangano  
 Ion circulation and precipitation at Ganymede



- Z74 EGU2011-12042  
**Allioux Renaud** and Louarn Phillipe  
A model of the energetic particle populations in the environment of Ganymede
- Z75 EGU2011-12279  
Ying-Dong Jia, **Christopher Russell**, Krishan Khurana, and Tamas Gombosi  
Cassini observations and MHD Model study of the Enceladus-magnetospheric plasma interaction
- Z76 EGU2011-13532  
**Frank Crary**, Donald Gurnett, Andrew Coates, and Geraint Jones  
Non-ideal Alfvén wings and the acceleration of electron beams by Enceladus

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### PS6.0 – Exoplanets: observation, characterisation and habitability – Orals

Convener: Daniel Winterhalter | Co-Conveners: Lisa Kaltenecker, James Cho, Antigona Segura

**Room: 32**

Chairperson: Daniel Winterhalter

- 13:30–14:00 EGU2011-14215  
**William Borucki** and the Kepler Team  
Latest Results from the Kepler Mission
- 14:00–14:15 EGU2011-2327  
**Nicolas Cowan** and the EPOXI Earthlings Team  
Identifying Surface Types on an Unresolved Planet
- 14:15–14:30 EGU2011-2760  
**Charles Beichman** and the NIRC2 and ELEKTRA Teams  
Near-IR Observations of Terrestrial Planets From Space: Surveys and Pointed Observations
- 14:30–14:45 EGU2011-3185  
**Ingo Waldmann** and Giovanna Tinetti  
Ground-based spectroscopy of extrasolar planets
- 14:45–15:00 EGU2011-3794  
**Torrence Johnson**, Olivier Mousis, and Jonathan Lunine  
Effect of stellar composition on the rock/ice composition of condensates in exoplanet systems
- 15:00–15:15 EGU2011-9325  
**Stephen Unwin**, Wesley A. Traub, and Geoffrey Bryden  
Zodiac II: A Balloon Facility for Exoplanet Debris Disk Observations

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### PS6.0 – Exoplanets: observation, characterisation and habitability – Posters

Convener: Daniel Winterhalter | Co-Conveners: Lisa Kaltenecker, James Cho, Antigona Segura

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z77 EGU2011-2482  
**Jonathan Nichols**  
Magnetosphere-ionosphere coupling at Jupiter-like exoplanets with internal plasma sources: implications for detectability of auroral radio emissions
- Z78 EGU2011-2998  
**Marie Behoukova**, Gabriel Tobie, Gael Choblet, and Ondrej Cadek  
Tidally-induced thermal runaway on extrasolar Earths: 3D results and scaling
- Z79 EGU2011-5533  
**Yoshiyasu Watanabe** and Eiichi Tajika  
The effects of obliquity and carbonate-silicate geochemical cycle on the climate of water-rich extraterrestrial planets
- Z80 EGU2011-5611  
**Maxim Khodachenko**, Igor Alexeev, Elena Belenkaya, Kristina Kislyakova, Helmut Lammer, Mats Holmström, and Jean-Mathias Grießmeier  
Magnetodisk dominated magnetospheres of Hot Jupiters: Implications for exoplanetary ENA cloud observations and stellar wind parameter diagnostics
- Z81 EGU2011-5860  
**Christiane Helling**, Moira Jardine, Soeren Witte, and Declan Diver  
The possibility of lightning in extrasolar atmospheres
- Z82 EGU2011-5862  
Richard Schwarz, Nader Haghighipour, **Siegfried Eggl**, Elke Pilat-Lohinger, and Barbara Funk  
Prospects of the Detection of Circumbinary Planets With Kepler and CoRoT Using the Variations of Eclipse Timing

- Z83 EGU2011-8567  
**Paul Tackley**, Hein van Heck, Michael Ammann, John Brodholt, and David Dobson  
 Mantle dynamics and plate tectonics on super-Earths: Effect of rheology
- Z84 EGU2011-9112  
**James Burke** and Andrea Carroll  
 Exoplanet Activity of The Planetary Society
- Z85 EGU2011-10880  
**Lena Noack** and Doris Breuer  
 Propensity of Plate Tectonics on Super-Earths: Influence of Pressure

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**PS7.2/AS4.16 – Aurora, Airglow and Transient Luminous Events in Planetary Atmospheres (co-organized) – Orals**

Convener: Cyril Simon Wedlund | Co-Conveners: Guillaume Gronoff, Tom Slanger, Yoav Yair

**Room: 32**

Chairperson: Cyril Simon Wedlund and Guillaume Gronoff

- 08:30–08:45 EGU2011-3133  
**John Plane**, Hilke Oetjen, Alfonso Saiz-Lopez, Bifford Williams, and Marcelo Miranda  
 The Sodium Nightglow
- 08:45–09:00 EGU2011-2305  
**Tom Slanger** and Deepali Saran  
 The FeO Nightglow
- 09:00–09:15 EGU2011-3463  
**Jean-Claude Gérard**, Lauriane Soret, and Arnaud Stiepen  
 The Mars and Venus airglow: observations and excitation processes
- 09:15–09:30 EGU2011-9532  
**Guillaume Gronoff**, Cyril Simon Wedlund, Christopher Mertens, Jean Lilensten, Stephen Bougher, and Mathieu Barthelemy  
 UV airglow - remote sensing of the Martian upper atmosphere
- 09:30–09:45 EGU2011-8939  
**Cyril Simon Wedlund**, Guillaume Gronoff, and Stephen Bougher  
 Retrieving exospheric temperatures from dayglow emissions at Mars
- 09:45–10:00 EGU2011-2924  
**Georg Fischer**, William S. Kurth, Ulyana A. Dyudina, Anthony Wesley, Christopher Go, Marc Delcroix, Philippe Zarka, Donald A. Gurnett, and Andrew P. Ingersoll  
 A giant thunderstorm in Saturn's northern hemisphere
- 10:00–10:15 EGU2011-2579  
**Tai-Yin Huang**, Cheng-Ling Kuo, Chih-Yu Chiang, Alfred Chen, Han-Tzong Su, and Rue-Ron Hsu  
 ISUAL 630nm Observations of Lightning-Induced Transient Emissions (LITEs)

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**PS7.2/AS4.16 – Aurora, Airglow and Transient Luminous Events in Planetary Atmospheres (co-organized) – Posters**

Convener: Cyril Simon Wedlund | Co-Conveners: Guillaume Gronoff, Tom Slanger, Yoav Yair

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Guillaume Gronoff and Tom Slanger

- Z86 EGU2011-12377  
 Romain Maggiolo, Marius Echim, **Cyril Simon Wedlund**, Johan De Keyser, Yongliang Zhang, and Jean-Gabriel Trotignon  
 Combining in-situ data from Cluster with UV images from TIMED to improve the knowledge of polar cap arcs
- Z87 EGU2011-8758  
**Cyril Simon Wedlund**, Herve Lamy, Björn Gustavsson, Tima Sergienko, Ingrid Sandahl, and Urban Brändström  
 3D reconstruction and modelling of N<sub>2</sub><sup>+</sup> and OI auroral emissions using the Auroral Large Imaging System (ALIS)
- Z88 EGU2011-2321  
**Paul Johnson**, Charles Malone, Murtadha Khakoo, Jason Young, Bahar Ajdari, Xianming Liu, Joseph Ajello, and Isik Kanik  
 Electron-Nitrogen Collision Processes Relevant to Planetary Atmospheres
- Z89 EGU2011-14078  
**Arturo López Ariste**, Bernard Gelly, Francois Leblanc, Claude Le Men, and Cyril Simon Wedlund  
 Polarization of Sodium Na emission lines in Mercury's exosphere
- Z90 EGU2011-14144  
**Véronique Bommier**  
 Possible density diagnostic by collisional depolarization in planetary atmospheres

- Z91 EGU2011-13378  
**Mathieu Barthelemy**, Jean Liliensten, Cyril Simon Wedlund, Guillaume Gronoff, Helene Menager, Steve Miller, Mackenzie Lystrup, Hanna Rothkael, and Joran Moen  
 New results in polarimetry of planetary thermospheric emissions: Earth and jovian cases.
- Z92 EGU2011-2692  
**Tom Slanger**, David Huestis, and Manuel Bautista  
 The Emission Intensity Ratio for O(1S) Transitions
- Z93 EGU2011-9537  
**Guillaume Gronoff**, Christopher Mertens, and Cyril Simon Wedlund  
 The AtMoCiad database, a necessary element for the upper atmosphere community
- Z94 EGU2011-3116  
**Arnaud Stiepen**, Jean-Claude Gérard, and Jean-Loup Bertaux  
 Characterization of the CO<sub>2</sub> and haze densities in the thermosphere-mesosphere region of Venus based on SPICAV observations of the nitric oxide UV nightside airglow
- Z95 EGU2011-13975  
**Antonio García Muñoz**, Enric Pallé, Pilar Montañés Rodríguez, Antonio Cabrera-Lavers, and Felipe Murgas  
 A multi-site ground-based search for Venus' lightning flashes
- Z96 EGU2011-2834  
**Daria Dubrovin**, Sander Nijdam, Eddie van Veldhuizen, Ute Ebert, Yoav Yair, and Colin Price  
 Sprite discharges on Jupiter, Saturn and Venus: Laboratory Experiments in Planetary Gas Mixtures
- Z97 EGU2011-4166  
**Gordon James**  
 Visible discharge near an active high-frequency dipole in the ionosphere
- Z98 EGU2011-9442  
**Philippe Ailleris**  
 Towards a better understanding of unusual atmospheric events: the Unidentified Aerospace Phenomena (UAP) Observations Reporting Scheme.

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### PS9.2 – Results from the Rosetta Flybys of Asteroids Steins and Lutetia – Orals

Convener: Horst Uwe Keller | Co-Conveners: Rita Schulz

**Room: 31**

Chairperson: H.U. Keller

- 15:30–15:45 EGU2011-2123  
**Rita Schulz**, Michael Küppers, and Kristin Wirth  
 The Rosetta Encounters with (2867) Steins and (21) Lutetia
- 15:45–16:00 EGU2011-7451  
 Laurent Jorda, Robert Gaskell, **Philippe Lamy**, Mikko Kaasalainen, Olivier Groussin, Benoit Carry, Guillaume Faury, Gilles Gesquière, Pedro Gutiérrez, and Walter Sabolo  
 Shape and Physical Properties of Asteroid (21) Lutetia from OSIRIS Images
- 16:00–16:15 EGU2011-10361  
**Matteo Massironi**, Nicolas Thomas, Simone Marchi, Jean Baptiste Vincent, Cecilia Tubiana, Colin Snodgrass, Vania Da Deppo and the Rosetta-OSIRIS Wp8 Team  
 The geological units of asteroid 21 Lutetia
- 16:15–16:30 EGU2011-6441  
**Alessio Aboudan**, Giacomo Colombatti, Marco Pertile, and Stefano Debei  
 Lutetia surface reconstruction and uncertainty analysis
- 16:30–16:45 EGU2011-12338  
**Fabrizio Capaccioni**, Angioletta Coradini, Stephane Erard, Gianrico Filacchione, Maria Cristina De Sanctis, Federico Tosi, Gabriele Arnold, Eleonora Ammannito, Stefano Giuppi, and The VIRTIS Team  
 The surface composition of 21 Lutetia and 2867 Steins, as observed by VIRTIS onboard ROSETTA.
- 16:45–17:00 EGU2011-2784  
**Samuel Gulkis**, Stephen Keihm, Lucas Kamp, Seungwon Lee, Mark Hofstadter, Michael Janssen, and Jacques Crovisier  
 Millimeter and submillimeter continuum observations of Asteroid (21) Lutetia with MIRO instrument on the ESA Rosetta Spacecraft
- 17:00–17:15 EGU2011-11092  
**Federico Tosi**, Maria Teresa Capria, Angioletta Coradini, Fabrizio Capaccioni, Maria Cristina De Sanctis, Davide Grassi, Stéphane Erard, Gianrico Filacchione, Gabriele Arnold, and the Rosetta/VIRTIS team  
 The Lutetia's and Steins' surface temperatures and surface properties

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### PS9.2 – Results from the Rosetta Flybys of Asteroids Steins and Lutetia – Posters

Convener: Horst Uwe Keller | Co-Conveners: Rita Schulz

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z99 EGU2011-9152  
**Kathrin Markus**, Gabriele Arnold, and Hiesinger Harald  
Laboratory spectral analyses of enstatite, feldspar, oldhamite mixtures and aubrites: Implications for the Rosetta VIRTIS data evaluation of asteroid Šteins flyby
- Z100 EGU2011-1945  
**Stefano Giuppi**, Angioletta Coradini, Fabrizio Capaccioni, Maria Teresa Capria, Maria Cristina De Sanctis, Stephan Erard, Gianrico Filacchione, and Federico Tosi  
Virtis / Rosetta: temperatures analysis during Lutetia Dynamic Rehearsal as an input in Lutetia Fly-By planning
- Z101 EGU2011-12873  
**Irina Belskaya**  
Ground-based observations of asteroid 21 Lutetia: a critical view after the Rosetta fly-by
- Z102 EGU2011-12094  
**Dan Andrews**, Andrew Morse, Simeon Barber, Mark Leese, Geraint Morgan, Simon Sheridan, Ian Wright, and Colin Pillinger  
Ptolemy operations as part of the Rosetta mission during the targeted flyby of asteroid 21 Lutetia.
- Z103 EGU2011-13651  
**A. Chantal Lévassieur-Regourd**, Edith Hadamcik, Jean-Baptiste Renard, Lucy-Ann McFadden, Asoke Sen, and Jeremie Lasue  
Clues to links between some meteorites and the asteroidal targets of Rosetta, from comparisons between polarimetric measurements on meteoritic samples and observations
- Z104 EGU2011-5009  
**Seungwon Lee**, Samuel Gulkis, Mark Hofstadter, Paul von Allmen, Jacques Crovisier, Nicolas Biver, and Dominique Bockelee-Morvan  
Submillimeter Spectroscopic Observations of Asteroid (21) Lutetia with MIRO Instrument on the ESA Rosetta Spacecraft

**PS9.3 – Venus Express and Akatsuki – Orals**

Convener: Håkan Svedhem | Co-Conveners: Takeshi Imamura, Dmitriy Titov

**Room: 30**

Chairperson: Håkan Svedhem

- 08:30–09:00 EGU2011-4383  
**Masato Nakamura** and the AKATSUKI Project Team  
Return to Venus of AKATSUKI
- 09:00–09:15 EGU2011-9688  
**Takeshi Imamura** and the AKATSUKI Project Team  
Renewed science plan of AKATSUKI
- 09:15–09:45 EGU2011-5002  
**Stas Barabash**, Jean-Andre Sauvaud and the ASPERA-4 Team  
Review of results from the plasma package ASPERA-4 onboard Venus Express
- 09:45–10:00 EGU2011-1464  
**Christopher T. Russell**, Jillian T.M. Daniels, Robert J. Strangeway, and Tielong L. Zhang  
Venus Express Measurements of Whistler Mode Bursts Above the Polar Vortex

**COFFEE BREAK**

Chairperson: Dmitriy Titov

- 10:30–10:45 EGU2011-7955  
**Franck Montmessin**, Jean-Loup Bertaux, Franck Lefèvre, Emmanuel Marcq, Denis Belyaev, Jean-Claude Gérard, Oleg Korablev, Anna Fedorova, Vincent Sarago, and Ann-Carine Vandaele  
Discovery and characterization of an ozone layer in Venus' atmosphere
- 10:45–11:00 EGU2011-987  
**Igor Khatuntsev**, Marina Patsaeva, Dimitri Titov, Wojciech Markiewicz, Nikolay Ignatiev, and Alexander Turin  
Variability in the atmospheric winds on the cloud top level of Venus according to UV images obtained by VMC

- 11:00–11:15 EGU2011-10120  
**Arnaud Mahieux**, Séverine Robert, Valérie Wilquet, Rachel Drummond, Ann Carine Vandaele, Anna Fedorova, and Jean-Loup Bertaux  
 Recent CO<sub>2</sub> results obtained by the SOIR instrument on board Venus Express: Terminators dynamic investigation
- 11:15–11:30 EGU2011-12000  
**Håkan Svedhem**, Michael Müller, Ingo Müller-Wodarg, Pascal Rosenblatt, and Sean Bruinsma  
 Direct density measurements in Venus' atmosphere by combined drag and torque techniques
- 11:30–12:00 EGU2011-6293  
**Sebastien Lebonnois**, Stephen Lewis, Masaru Yamamoto, Christopher Lee, Jon Dawson, Peter Read, Joao Mendonca, and Helen Parish  
 A comparative analysis of Simplified General Circulation Models of Venus atmosphere

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**LUNCH BREAK**

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Chairperson: Takeshi Imamura

- 13:30–14:30 EGU2011-12729  
**Dmitriy Titov**  
 From Martian water to Venus clouds: Age of Planetary Discoveries (David Bates Medal Lecture)
- 14:30–15:00 EGU2011-9683  
**Thomas Widemann**  
 Ground-based observational constraints on the mesosphere and lower thermosphere : Coordinated campaigns with Venus Express
- 15:00–15:15 EGU2011-4763  
**Jean-Yves Chaufray**, Jean-Loup Bertaux, Eric Quemerais, Francois Leblanc, and Eric Villard  
 Hydrogen density in the dayside Venusian exosphere derived from Lyman-alpha observations by SPICAV on Venus Express
- 15:15–15:30 EGU2011-7066  
**Alexander Pavelyev**, Alexander Zaharov, and Oleg Rzhiga  
 Investigation of the atmosphere and surface of Venus by use of reanalysis of the radio occultation data of Venera-9, 10, and 15, 16 satellites

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**PS9.3 – Venus Express and Akatsuki – Posters**

Convener: Håkan Svedhem | Co-Conveners: Takeshi Imamura, Dmitriy Titov

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Håkan Svedhem

- Z105 EGU2011-554  
**Eugene Shalygin**, Alexander Basilevsky, Dmitri Titov, and Wojciech J. Markiewicz  
 Synthetic images of Venus surface based on VMC images
- Z106 EGU2011-2985  
**Seiko Takagi** and Naomoto Iwagami  
 Contrast sources for the infrared images taken by the Venus mission AKATSUKI
- Z107 EGU2011-10194  
 Valérie Wilquet, **Arnaud Mahieux**, Séverine Robert, Rachel Drummond, and Ann Carine Vandaele  
 Climatology of the aerosol loading in the upper haze of Venus from SOIR measurements on-board Venus Express
- Z108 EGU2011-5171  
**Kazunori Ogohara**, Toru Kouyama, Hiroki Yamamoto, Naoki Sato, Masahiro Takagi, and Takeshi Imamura  
 Automated cloud tracking system for Akatsuki and Venus Express
- Z109 EGU2011-391  
**Mayu Hosouchi**, Naomoto Iwagami, Shoko Ohtsuki, and Masahiro Takagi  
 Venus' atmospheric waves indicated by ground-based dayside infrared spectroscopic observation
- Z110 EGU2011-916  
**Yeon Joo Lee**, Dimitri Titov, Nikolay Ignatiev, Silvia Tellmann, Martin Pätzold, and Giuseppe Piccioni  
 Radiative energy balance at the Venus cloud top
- Z111 EGU2011-634  
**Joao Mendonca**, Peter Read, Stephen Lewis, and Christopher Lee  
 New results from the Oxford Venus GCM

- Z112 EGU2011-6953  
**Alexander Pavelyev**, Anatoliy Gavrik, Yuriy Gavrik, Alexey Pavelyev, Yuei-An Liou, Jens Wickert, and Torsten Schmidt  
 Location of plasma layers in the ionosphere of Venus by use of the radio occultation intensity-eikonal acceleration technique
- Z113 EGU2011-11518  
 Hannes Gröller, Helmut Lammer, Herbert I. M. Lichtenegger, Martin Pflieger, Valery I. Shematovich, and Yuri N. Kulikov  
 Venus day- and nightside oxygen exosphere

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**PS10.0/GMPV28 – Volcanism and Tectonics in the Solar System (co-organized) – Orals**

Convener: Thomas Platz | Co-Conveners: Matteo Massironi, Graziella Caprarelli, Paul K. Byrne, Pascal Allemand, Harald Hiesinger

**Room: 32**

Chairperson: Thomas Platz, Matteo Massironi

- 10:30–10:45 EGU2011-1570  
**Ronald Greeley**  
 Terrestrial analogs to planetary basaltic volcanism
- 10:45–11:00 EGU2011-4197  
**Krishan Khurana**, Xianzhe Jia, Margaret Kivelson, Francis Nimmo, Gerald Schubert, and Christopher Russell  
 Evidence of a global magma ocean in Io's interior
- 11:00–11:15 EGU2011-658  
**Paul Byrne**, Eoghan Holohan, Matthieu Kervyn, Benjamin van Wyk de Vries, John Murray, and Valentin Troll  
 A Spreading-Sagging Continuum for the Structure of Large Volcanoes on the Terrestrial Planets
- 11:15–11:30 EGU2011-11521  
**Rikke Pedersen**  
 Remote sensing observations of active volcanic and tectonic processes in Iceland
- 11:30–11:45 EGU2011-814  
**Riccardo Pozzobon**, Andrea Bistacchi, and Matteo Massironi  
 Association of cone sheets and radial dykes on Ascraeus Mons (Mars): structural analysis and modelling
- 11:45–12:00 EGU2011-8785  
**Amanda L. Nahm**, Richard A. Schultz, and David A. Kring  
 Forward mechanical modeling of the Rupes Recta normal fault in eastern Mare Nubium, the Moon
- 12:00–12:15 **Poster Introductions & Discussion**

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**PS10.0/GMPV28 – Volcanism and Tectonics in the Solar System (co-organized) – Posters**

Convener: Thomas Platz | Co-Conveners: Matteo Massironi, Graziella Caprarelli, Paul K. Byrne, Pascal Allemand, Harald Hiesinger

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Matteo Massironi, Paul Byrne

- Z114 EGU2011-14136  
**Paul K. Byrne**, Benjamin van Wyk de Vries, Eoghan P. Holohan, John B. Murray, and Valentin R. Troll  
 The Influence of Lithospheric Flexure Upon the Structure of Olympus Mons
- Z116 EGU2011-7772  
**Klaus Gwinner**, James W. Head, and Lionel Wilson  
 Types, morphology, and significance of vent structures on the summit and flanks of Pavonis Mons, Mars
- Z117 EGU2011-12975  
**Thomas Platz**, Ernst Hauber, Oryaelle Chevrel, Laetitia Le Deit, Frank Trauthan, Frank Preusker, Ralf Jaumann, and Gerhard Neukum  
 Preliminary results on lava flow morphology and vent structures: an example from the Western Volcanic Zone, Iceland
- Z118 EGU2011-12860  
 Ernst Hauber, **Thomas Platz**, Laetitia Le Deit, Oryaelle Chevrel, Bernd Hoffmann, Lena Kuhlmann, Frank Trauthan, Frank Preusker, and Ralf Jaumann  
 Mapping of Postglacial Icelandic Lava Flows as Analogues for Mars
- Z119 EGU2011-13166  
**Thomas Platz** and Greg Michael  
 Eruption history of the Elysium Volcanic Centre, Mars

- Z120 EGU2011-8545  
**Anne Deschamps**, Pascal Allemand, and Christophe Delacourt  
Comparative study of volcanic landforms on Mars and on the East Pacific Rise using high-resolution AUV and HiRISE data
- Z121 EGU2011-6316  
**Anezina Solomonidou**, Georgios Bampasidis, Athena Coustenis, Konstantinos Kyriakopoulos, Karen Seymour, Mathieu Hirtzig, Emmanuel Bratsolis, and Xenophon Moussas  
Morphotectonic and cryovolcanic structures on Titan and Enceladus with resemblance to terrestrial morphologies
- Z122 EGU2011-165  
Munkhtsetseg Oidov and **Hirokazu Fujimaki**  
Magmatism in Tsagaandelger, Eastern Mongolian Volcanic belt: Petrological and Isotopic Constraints on Mesozoic Geodynamic Setting
- Z123 EGU2011-3480  
**Glaciale Tiu**, Benjamin van Wyk de Vries, and Alfredo Mahar Francisco Lagmay  
Volcanic morphology, volcano alignment and basement structure in the Limagne Fault and Chaîne des Puys: perspectives for remote sensing in the solar system
- Z124 EGU2011-2451  
**Clinton Conrad**, Todd Bianco, Eugene Smith, and Paul Wessel  
Patterns of intraplate volcanism on Earth controlled by asthenospheric shear

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**EMRP3/PS10.3 – Planetary Magnetism, PlanetMag (co-organized) – Orals**

Convener: Matthias Holschneider | Co-Conveners: Mioara Mandea, Hermann Lühr, Johannes Wicht, Doris Breuer, Stuart Gilder

**Room: 41**

Chairperson: n.n.

- 15:30–15:45 EGU2011-7730  
**Andre Giesecke**, Frank Stefani, and Gunter Gerbeth  
Experimental realisation of homogeneous dynamo action
- 15:45–16:00 EGU2011-3051  
**Wieland Dietrich**, Johannes Wicht, and Ulrich Christensen  
The convective origin of hemispherical dynamos
- 16:00–16:15 EGU2011-5408  
**Christian Gerhards**  
Modeling the Earth's magnetic field by local multiscale methods
- 16:15–16:30 EGU2011-3530  
**Emmanuel Chané**, Joachim Saur, and Stefaan Poedts  
Modelling Jupiter's magnetosphere: Influence of the internal sources
- 16:30–16:45 EGU2011-9261  
**Jaime Urrutia-Fucugauchi**, Daniel Flores-Gutierrez, Ligia Perez-Cruz, Raquel Diaz-Hernandez, and Carlos Linares-Lopez  
Micromagnetic and Microstructural Analyses of Individual Chondrules From the Allende Carbonaceous Chondrite
- 16:45–17:00 EGU2011-5081  
**Nico De Koker**, Gerd Steinle-Neumann, and Vojtech Vlcek  
Thermal Conductivity of Earth's Liquid Outer Core from First-Principles Calculations
- 17:00–17:15 EGU2011-3223  
**Jan Dostal**, Zdenek Martinec, and Maik Thomas  
Simulation of the ocean induced poloidal magnetic field variations by considering the conductivity contrast between ocean and continent

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**EMRP3/PS10.3 – Planetary Magnetism, PlanetMag (co-organized) – Posters**

Convener: Matthias Holschneider | Co-Conveners: Mioara Mandea, Hermann Lühr, Johannes Wicht, Doris Breuer, Stuart Gilder

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Johannes Wicht

- A15 EGU2011-13344  
**Kevin Lewis** and Frederik Simons  
Structure and Heterogeneity of the Martian Crustal Magnetic Field

- A16 EGU2011-9986  
**Christoph Egbers** and Nicoleta Scurtu  
Magnetorotational-type instability in Couette-Taylor flows of viscoelastic polymer liquids
- A17 EGU2011-3387  
**Mario Seufert**, Joachim Saur, and Fritz M. Neubauer  
Electromagnetic induction at Ganymede
- A18 EGU2011-3888  
**Glenn Sterenborg** and John Crowley  
Thermal Evolution of Early Solar System Planetesimals and the Possibility of Sustained Dynamos
- A19 EGU2011-6502  
Iudovic Petitedmange and **Hubert Klahr**  
Wave generation in rotating and non-rotating MHD Spherical Couette Flow with an applied vertical magnetic field
- A20 EGU2011-7562  
**Julia Ernst-Hullermann**, Helmut Harder, and Ulrich Hansen  
Finite Volume simulations of dynamos in ellipsoidal planets
- A21 EGU2011-8519  
**Rob Shore**, Kathy Whaler, Susan Macmillan, and Ciaran Beggan  
Methods for Processing Satellite Constellation Measurements of Earth-External Magnetic Field Sources
- A22 EGU2011-3054  
**Johannes Wicht**  
Flow and magnetic instabilities in the spherical Couette system
- A23 EGU2011-3945  
**Xing Wei**  
Kinematic dynamo in spherical Couette flow
- A24 EGU2011-6172  
**Iudovic Petitedmange** and Emmanuel Dormy  
Axisymmetric and non-axisymmetric MagnetoStrophic MRI modes
- A25 EGU2011-8518  
Céline Guervilly, Philippe Cardin, and **Nathanael Schaeffer**  
A dynamo driven by zonal jets at the upper surface in the giant planets



## Friday, 08 April

**PS2.2 – Lunar Science and Exploration – Orals**

Convener: Bernard Foing | Co-Conveners: Harald Hiesinger

**Room: 31**

Chairperson: n.n.

- 08:30–08:45 EGU2011-6647  
**Björn Grieger**, Jean-Luc Josset, Horst Uwe Keller, Manuel Grande, and Bernard H. Foing  
The SMART-1 AMIE, SIR, and D-CIXS data sets in ESA's Planetary Science Archive
- 08:45–09:00 EGU2011-10352  
**Yoshifumi Futaana**, Charles Lue, Stas Barabash, and Martin Wieser  
Global influence of lunar crustal fields on the solar wind flow
- 09:00–09:15 EGU2011-13033  
**Gongyou Wu**, Ck Shum, Yuchan Yi, Hok Sum Fok, Sander Goossens, Koji Matsumoto, Hiroshi Araki, Chunli Dai, Xiaogong Hu, H. Bâki Iz and the Lunar study Team  
Lunar Topography and Regional Gravity Field Modeling Using Multiple Platform Laser Altimetry and Crossovers
- 09:15–09:30 EGU2011-8609  
Richard R. Vondrak, **John W. Keller**, Gordon Chin, Noah Petro, James Rice, and James Garvin  
The Lunar Reconnaissance Orbiter: Plans for the Science Phase
- 09:30–09:45 EGU2011-4674  
**David E Smith**, Maria T Zuber, Gregory A Neumann, Erwan Mazarico and the LOLA Science Team  
Recent Results from the LOLA Instrument on LRO
- 09:45–10:00 EGU2011-4459  
**Maxim Litvak**, Igor Mitrofanov, Anton Sanin and the LEND Team  
Observation of Moon polar shadow regions from comparative analysis of LEND and LOLA data onboard LRO mission

**COFFEE BREAK**

Chairperson: B.H. Foing/ H. Hiesinger

- 10:30–10:45 EGU2011-11798  
**Ben Bussey** and The Mini-RF Team  
Mini-RF: Mapping the Moon with Radar
- 10:45–11:00 EGU2011-12878  
**Harald Hiesinger**, Carolyn H. van der Bogert, Dennis Reiss, and Mark S. Robinson  
New Absolute Model Ages of Basalts in Mare Crisium
- 11:00–11:15 EGU2011-12665  
**Jeffrey Plescia** and Mark Robinson  
Locations and Geology of the Soviet Lunar Rover and Sample Return Missions
- 11:15–11:30 EGU2011-4264  
**Maria T Zuber**, David E Smith, Michael Watkins and the GRAIL Science Team  
The GRAIL Discovery Mission for Launch Sept 2011
- 11:30–11:45 EGU2011-5107  
**Richard Elphic**, Gregory Delory, Anthony Colaprete, Mihaly Horanyi, Paul Mahaffy, Butler Hine, Steven McClard, Joan Salute, Edwin Grayzeck, and Don Boroson  
NASA's Lunar Atmosphere and Dust Environment Explorer (LADEE)
- 11:45–12:00 EGU2011-5027  
**Igor Mitrofanov**, Lev Zelenyi, Vladislav Tretyakov, and Vladimir Dolgoplov  
Scientific investigations of lunar poles by LUNA-GLOB and LUNA-RESOURCE missions
- 12:00–12:15 EGU2011-12161  
**Gerald Sanders**  
Incorporation of In-Situ Resource Utilization into Short Duration Human Lunar Exploration Missions

**PS2.2 – Lunar Science and Exploration – Posters**

Convener: Bernard Foing | Co-Conveners: Harald Hiesinger

**Hall Z | Display Time 08:00–17:00**

Author in Attendance: 13:30–15:00

Chairperson: B.H. Foing/ H. Hiesinger

- Z1 EGU2011-386  
**Jun Cui**, Xiaodong Wang, Jianjun Liu, Xin Ren, Xiaoqian Wang, Fang Wang, Qiang Fu, Chunlai Li, and Ziyuan Ouyang  
First Chang'E-2 results of the lunar plasma environment: Observation of a plasma void near the Serenitatis antipode?
- Z2 EGU2011-1064  
**Guerric de Crombrugghe de Looringhe**  
A research and training expedition preparing for a human mission to the Moon
- Z3 EGU2011-4808  
**Barbara Atamaniuk** and Hanna Rothkaehl  
Transport of charged grains in Lunar environment.
- Z4 EGU2011-5039  
**Igor Mitrofanov**, Maxim Litvak, Anton Sanin and the LEND Team  
Lunar Polar Areas of Water-Rich Permafrost According to LEND/LRO Data
- Z5 EGU2011-5089  
**Konstantinos Grigoropoulos**, George Stefanopoulos, John Bozovitis, and Konstantinos Dimas  
Unusual luminous object transit to moon mass in the locality, of Mare Serenitatis
- Z6 EGU2011-6723  
Andrei M. Sadowski, **Dmitrii A. Vavilov**, and Alexander A. Skalsky  
Magnetization of Moon: origin and relevant physical phenomena
- Z7 EGU2011-8905  
**Ruth Ziethe** and Tilman Spohn  
Constraints for a solid inner core in the Earth's Moon
- Z8 EGU2011-9584  
**Xiao-Dong Wang**, Qiu-Gang Zong, Jing-Song Wang and the Chang'E-1 Ground Research and Application System Team  
Ion dynamics in the lunar plasma environment observed by Chang'E-1/SWIDs
- Z9 EGU2011-12408  
**Luis Teodoro**, Richard C. Elphic, Vincent R. Eke, Matthew Siegler, and Norbert Schörghofer  
Constraining Models of Water Migration in the Lunar Subsurface
- Z10 EGU2011-12675  
**Jeffrey Plescia** and Mark Robinson  
Constraints on the Youngest Absolute Lunar Crater Chronology
- Z11 EGU2011-12692  
**Ben Bussey**, Josh Cahill, Daven Quinn, Andy McGovern, Paul Spudis, Hiroto Noda, Yoshiaki Ishihara, and Soren Sorensen  
Determining Lunar Polar Illumination Conditions using Kaguya & LRO Topography
- Z12 EGU2011-13537  
**Erwan Mazarico**, David Rowlands, David Smith, Maria Zuber, Gregory Neumann, and Mark Torrence  
Precision Orbit Determination for the Lunar Reconnaissance Orbiter
- Z13 EGU2011-4972  
**Anton Sanin**, Igor Mitrofanov, Maxim Litvak and the LEND Team  
Global mapping of neutron emission from the Moon according to LEND data.
- Z14 EGU2011-10125  
**Karin Bauch**, Harald Hiesinger, Mark Robinson, and Frank Scholten  
Thermophysical Properties of Selected Lunar Study Regions Determined from LROC and Diviner Data.
- Z15 EGU2011-834  
**Jonathan Besserer**, Mathieu Le Feuvre, Gabriel Tobie, Gael Choblet, and Antoine Mocquet  
Coupling tidal interactions and internal dynamics of the early Earth-Moon system
- Z16 EGU2011-3325  
**Michael Le Bars**, David Cebron, Mark Wieczorek, Ozgur Karatekin, and Matthieu Laneuville  
An impact driven dynamo for the early Moon
- Z17 EGU2011-5345  
**Richard Elphic**, Luis F. A. Teodoro, Vincent R. Eke, David A. Paige, Matthew A. Siegler, and Anthony Colaprete  
Reconciling LCROSS and Orbital Neutron Water Abundance Estimates in Cabeus Crater

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**PS4.0 – Small bodies and Dust – Orals**

Convener: Nicolas Altobelli | Co-Conveners: Gerhard Schwehm

**Room: 32**

Chairperson: Nicolas Altobelli

13:30–13:45 EGU2011-8865

**Carol Raymond**, Christopher Russell, Marc Rayman, and Robert Mase  
Dawn's Exploration of 4 Vesta in 2011

- 13:45–14:00 EGU2011-10691  
**M. Cristina De Sanctis**, Angioletta Coradini, Eleonora Ammannito, M. Teresa Capria, Fabrizio Capaccioni, Gianrico Filacchione, Sergio Fonti, Gianfranco Magni, Federico Tosi, and Dawn Team  
 VIR Experiment onboard of Dawn mission: Vesta spectral investigation
- 14:00–14:15 EGU2011-2507  
**Ralf Jaumann** and the Dawn Geosciences Team  
 Geoscientific Mapping of the Asteroid Vesta by NASA's Dawn mission.
- 14:15–14:30 EGU2011-7602  
**Frank Postberg** and the ISPE Team  
 Capturing Stardust - Advanced Studies of Interstellar Dust Analogue Tracks in Stardust Flight Spare Aeogel
- 14:30–14:45 EGU2011-13611  
**Mihaly Horanyi**, Antal Juhasz, David Malaspina, Zoltan Sternovsky, Sascha Kempf, Eberhard Gruen, Ralf Srama, and Frank Postberg  
 Dust Tomography of the Heliosphere
- 14:45–15:00 EGU2011-7845  
**Rachel Halina Soja**, Nicolas Altobelli, and Douglas P. Hamilton  
 Retrograde particles in Galileo Dust Detector Data
- 15:00–15:15 EGU2011-2547  
**Martin Rubin**, Kenneth C. Hansen, Michael R. Combi, Valeriy M. Tenishev, and Tamas I. Gombosi  
 Modeled instabilities at the magnetic cavity boundary of comet 67P/Churyumov-Gerasimenko
- Chairperson: Frank Postberg
- 15:30–15:45 EGU2011-9043  
**Victoria Yaroshenko**, Wojciech Miloch, Sergey Vladimirov, and Gregor Morfill  
 Cassini charging at Saturn insertion orbit
- 15:45–16:00 EGU2011-6537  
**Jean-Loup Bertaux**, Brigitte Gondet, Jean-Pierre Bibring, Franck Montmessin, and Eric Quémerais  
 The albedo spectrum of Phobos from UV to IR obtained with SPICAM and OMEGA on Mars Express
- 16:00–16:15 EGU2011-10432  
**Mikko Kaasalainen**, Matti Viikinkoski, Josef Durech, and Benoit Carry  
 Maximum compatibility estimate for asteroid models from multiple data sources
- 16:15–16:30 EGU2011-12933  
**Anna Mocker**, Eberhard Grün, Jonathan Hillier, Sascha Kempf, and Ralf Srama  
 Calibration methods for in-situ micrometeorite sensors
- 16:30–16:45 EGU2011-38  
**Valerio Carruba** and Alessandro Morbidelli  
 On the first  $\hat{I}\frac{1}{2}6$  anti-aligned librating asteroid family of Tina
- 16:45–17:00 EGU2011-13524  
**Eliot Young**  
 How to detect Eris' atmosphere: stellar occultations in the diffraction-dominated regime

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#### PS4.0 – Small bodies and Dust – Posters

Convener: Nicolas Altobelli | Co-Conveners: Gerhard Schwehm

**Hall Z | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: Ralf Srama

- Z18 EGU2011-1432  
**Yukihito Kitazawa**, Haruhisa Matsumoto, Akira Sakurai, Toshiya Handa, and Sunao Hasegawa  
 Status Report of Development of In-situ Dust Sensor
- Z19 EGU2011-2559  
**Cecilia Tubiana**, Colin Snodgrass, Jean-Baptiste Vincent and the the OSIRIS and P/2010 A2 ground based observing teams Team  
 The P/2010 A2 asteroid collision confirmed by Rosetta/OSIRIS observation
- Z20 EGU2011-2725  
**Ivana Richterova**, Zdenek Nemecek, Jiri Pavlu, Martin Beranek, and Jana Safrankova  
 Modeling the secondary emission yield of salty ice dust grains
- Z21 EGU2011-3736  
**Oleg Shchuko**, Svetlana Shchuko, Daniil Kartashov, and Roberto Orosei  
 Kuiper Belt objects: interior matter differentiation for different composition of accretion material
- Z22 EGU2011-4089  
**Katrin Krohn**, Jaumann Ralf, Russel Christopher T., Raymond Carol A., Pieters Carle M., Wagner Roland, and van Gasselt Stephan  
 Lunar geological structure catalog for Dawn

- Z23 EGU2011-4207  
Carla Taricco, Narendra Bhandari, **Paolo Colombetti**, Alberto Romero, Gianna Vivaldo, Neeharika Sinha, Peter Jenniskens, Muawia Shaddad, and G. m. Ballabh  
Asteroid 2008 TC3, Almahata Sitta meteorite and cosmogenic radioisotopes
- Z24 EGU2011-6182  
**Wlodek Kofman**, Alain Herique, Jean-Pierre Goutail, Sonia Zine, and Consort Team  
Consert / Rosetta : status of the experiment
- Z25 EGU2011-6702  
**Ingrid Mann**, Johan De Keyser, and Hervé Lamy  
Cometary Coma Composition: chemical reactions versus dust-generated gas
- Z26 EGU2011-7606  
**Jeremy Guignard** and Mickael Toplis  
Textural characterization of iron rich-phases in H-ordinary chondrites: A new parameter to quantify the thermal metamorphism and constrain the thermal history of the parent body
- Z27 EGU2011-10045  
Claudia Faber, **Martin Knapmeyer**, Julia Hoppe, Hans-Herbert Fischer, and Klaus Seidensticker  
On the location of acoustic sources on comet 67P/Churyumov-Gerasimenko
- Z28 EGU2011-11327  
**Joel Ponce**  
The TNOs in perspective: a two-third majority among the 100 largest bodies of our Solar System
- Z29 EGU2011-14012  
**Oliver Hartman** and Gerhard Neukum  
A Lunar-like Chronology Model as Estimator for the Mass Depletion of the Asteroid Belt
- Z30 EGU2011-13179  
**Nicolas Altobelli**, Sascha Kempf, Veerle Sterken, Ralf Srama, Georg Moragas, and Eberhard Gruen  
CASSINI-CDA's hunt for exogenous dust around Saturn: confronting modeling with data
- Z31 EGU2011-13427  
**Veerle Sterken**, Nicolas Altobelli, Sascha Kempf, Frank Postberg, Ralf Srama, Gerhard Schwehm, and Eberhard Grün  
Modeling the interstellar dust flow through the solar system, implications for Stardust Mission
- Z32 EGU2011-13472  
**Geraint Jones** and the Caroline Team  
Caroline: A Search for the Source of Earth's Water

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**PS5.0/ST6.1 – Planetary Plasma Physics, including electrodynamics of induced magnetospheres (co-organized) – Orals**

Convener: Esa Kallio | Co-Conveners: Philippe Garnier, Hermann Opgenoorth, Mark Lester

**Room: 30**

Chairperson: n.n.

- 08:30–08:45 EGU2011-1675  
**Tielong Zhang** and Wolfgang Baumjohann  
Venus Express Magnetic Observations of the Venus Magnetotail
- 08:45–09:00 EGU2011-2416  
**Eduard Dubinin**, Markus Fraenz, Joachim Woch, Tielong Zhang, Stas Barabash, Rickard Lundin, and Andrey Fedorov  
New (or well forgotten) type of induced magnetosphere is observed at Venus
- 09:00–09:15 EGU2011-11090  
**Anne Angsmann**, Markus Fraenz, Edik Dubinin, Joachim Woch, Stas Barabash, Tielong Zhang, and Uwe Motschmann  
Magnetic states of the ionosphere of Venus
- 09:15–09:30 EGU2011-1325  
**Niklas Edberg** and the Mars & Venus atmospheric escape Team  
Atmospheric escape from Venus and Mars during rough space weather
- 09:30–09:45 EGU2011-2326  
**Rickard Lundin**  
Implications of solar wind forcing on the Venus polar ionosphere and thermosphere
- 09:45–10:00 EGU2011-13308  
**Marius M. Echim**, Tielong Zhang, Dragos Constantinescu, and Tom Chang  
Comparative study of magnetosheath intermittent turbulence at Venus and Earth

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**COFFEE BREAK**

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Chairperson: n.n.

- 10:30–10:45 EGU2011-4086  
**Yoshifumi Saito**, Shoichiro Yokota, Masaki Nishino, Tadateru Yamamoto, Kota Uemura, and Hideo Tsunakawa  
 Interaction between the Moon and the Earth's magnetosphere observed by MAP-PACE on Kaguya
- 10:45–11:00 EGU2011-305  
**Masaki N. Nishino**, Xiao-Dong Wang, Masaki Fujimoto, Hideo Tsunakawa, Yoshifumi Saito, Shoichiro Yokota, Wei Bian, Chun-Lai Li, and Toshio Terasawa  
 Anomalous deformation of the Earth's bow shock in the lunar wake: Joint observations by Chang'E-1 and SELENE
- 11:00–11:15 EGU2011-695  
**Shahab Fatemi**, Mats Holmström, and Yoshifumi Futaana  
 Modeling the solar wind proton velocity space distribution function in the near lunar wake
- 11:15–11:30 EGU2011-5563  
**Shoichiro Yokota**, Yoshifumi Saito, Kazushi Asamura, Masaki Nishino, Hideo Tsunakawa, Hidetoshi Shibuya, Masaki Matsushima, Hisayoshi Shimizu, and Futoshi Takahashi  
 Structure and variation of the lunar exosphere
- 11:30–11:45 EGU2011-11431  
**Gabriella Stenberg**, Hans Nilsson, Yoshifumi Futaana, Stas Barabash, Andrei Fedorov, and Dave Brain  
 On the Helium balance in the Martian atmosphere
- 11:45–12:00 EGU2011-10116  
**G rard M. Chanteur**, Ronan Modolo, and Eduard Dubinin  
 Dynamics of Solar Wind Helium ions in the Martian environment

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**LUNCH BREAK**

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Chairperson: n.n.

- 13:30–13:45 EGU2011-11179  
**Hermann Opgenoorth**, Niklas Edberg, Mark Lester, Anthony Williams, Markus Fr nz, David Morgan, and Olivier Witasse  
 Mars Ionospheric and Magnetospheric Response to Solar Wind Variability
- 13:45–14:00 EGU2011-8774  
**David Morgan**, Donald Gurnett, Paul Withers, Erling Nielsen, Martin Paetzold, and Cyril Grima  
 Estimate of the Total Electron Content of the Martian Ionospheric M1 Layer from Mars Express Ionospheric Sounding
- 14:00–14:15 EGU2011-6192  
**Frantisek Neme **, David D. Morgan, Donald A. Gurnett, Firdevs Duru, and David A. Brain  
 Martian ionosphere observed by MARSIS: identification of plasma origin
- 14:15–14:30 EGU2011-6431  
**Markus Fr nz**, Eduard Dubinin, Erling Nielsen, Anne Angsmann, Joachim Woch, Stas Barabash, Rickard Lundin, Andrei Fedorov, and Tielong Zhang  
 Trans-terminator flow in the ionospheres of Mars and Venus
- 14:30–14:45 EGU2011-12488  
**Mathew Beharrell** and Jim Wild  
 MGS observations of the magnetic field draping around Mars
- 14:45–15:00 EGU2011-9374  
 Valery Shematovich, Dmitri Bisikalo, **Stas Barabash**, Catherine Dieval, and Gabriella Stenberg  
 Monte Carlo modelling of the protons and hydrogen atoms transport in the Martian upper atmosphere

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**PS6.1 – Origin and formation of planets, dynamics and natural processes of Solar system bodies. In Honor of the 60-year Anniversary of Prof. Yury Barkin. – Orals**

Convener: Yury Barkin | Co-Conveners: Natalia Petrova, Jose Manuel Ferrandiz, Yann Alibert, Christopher Broeg, Jean Souchay, Jerome Noir

**Room: 32**

Chairperson: Jose Ferrandiz, Jerome Noir

- 08:30–08:45 EGU2011-3523  
**David Cebron**, Claire Moutou, Michael Le Bars, and Patrice Le Gal  
 Tidal instability in exoplanetary systems evolution

- 08:45–09:00 EGU2011-10798  
**Frank Sohl**, Hauke Hussmann, and Frank W. Wagner  
Dissipation of tidal energy in synchronously rotating satellites and super-Earths
- 09:00–09:15 EGU2011-14067  
**Ruth Ziethe**, Peter Wurz, and Helmut Lammer  
The Interior and Surface Environment of Corot-7b
- 09:15–09:30 EGU2011-1242  
**Miles Osmaston**  
What can Triton's retrograde orbit tell us about how the Giant Planets (and others) were constructed?
- 09:30–09:45 EGU2011-1529  
Yurie Khachay and **Vsevolod Anfilogov**  
On the temperature and pressure evolution in the forming core and mantle on the stage of Earth's accumulation.
- 09:45–10:00 EGU2011-3148  
**Jerome Noir**, David Cebon, Michael Le Bars, and Jonathan Aurnou  
Libration-driven flows in planetary cores and subsurface oceans

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**COFFEE BREAK**

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Chairperson: Yury Barkin, Christopher Broeg

- 10:30–10:45 EGU2011-2032  
**Koji Matsumoto**, Fuyuhiko Kikuchi, Takahiro Iwata, Yusuke Kono, Seiitsu Tsuruta, Hideo Hanada, Sander Goossens, Yoshiaki Ishihara, Shunichi Kamata, and Sho Sasaki  
VLBI radio sources on a lander and an orbiter for study of lunar internal structure proposed for SELENE-2 mission
- 10:45–11:00 EGU2011-11500  
**Yury Barkin** and Jose Ferrandiz  
About the angles of inclination of the rotational axis and the angular momentum of Mercury
- 11:00–11:15 EGU2011-4336  
**Matthew Tiscareno**, Peter Thomas, and Joseph Burns  
Rotation of Janus and Epimetheus, and other moons of Saturn
- 11:15–11:30 EGU2011-3029  
**Benoît Noyelles**  
Theory of the rotation of Janus and Epimetheus
- 11:30–11:45 EGU2011-2117  
**Martin Lara**, ToShio FukuShima, and Sebastián Ferrer  
Ceres' Rotation Solution under the Gravitational Torque of the Sun
- 11:45–12:00 EGU2011-11280  
**Nicolas Rambaux**, Tim Van Hoolst, and Ozgur Karatekin  
Librational response of Europa, Ganymede, and Callisto for a non-Keplerian orbit
- 12:00–12:15 EGU2011-3081  
**Rose-Marie Baland**, Tim Van Hoolst, Marie Yseboodt, and Özgür Karatekin  
The influence of a subsurface ocean on the obliquity of Titan

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**PS6.1 – Origin and formation of planets, dynamics and natural processes of Solar system bodies. In Honor of the 60-year Anniversary of Prof. Yury Barkin. – Posters**

Convener: Yury Barkin | Co-Conveners: Natalia Petrova, Jose Manuel Ferrandiz, Yann Alibert, Christopher Broeg, Jean Souchay, Jerome Noir

**Hall Z | Display Time 08:00–17:00**

Author in Attendance: 13:30–15:00

Chairperson: Martin Lara, Yury Barkin

- Z33 EGU2011-4612  
**Mikhail Barkin**, Daria Novikova, and Alexandra Filippova  
Information models of EOP in the study of geophysical processes of the planetary scale
- Z34 EGU2011-4624  
**Leonid Akulenko**, Yury Markov, Vadim Perepelkin, and Lidiya Rykhlova  
Variations of the Atmosphere Angular Momentum and the Irregularities of The Earth Rotation
- Z35 EGU2011-13762  
**Natalia Bulatova**  
Spatio-temporal Technology Application for Studing of Earth's Active Processes and Celestial Bodies Oscillation Dynamics

- Z36 EGU2011-6457  
**Christopher Broeg** and Willy Benz  
Formation of giant planets: episodic impacts vs. gradual core growth
- Z37 EGU2011-998  
**Eva Pajorova**  
Dynamical Evolution of the Oort Cloud formation - Visualisation
- Z38 EGU2011-1355  
**Vasily Ferronsky**  
The nature and mechanism of the Solar System bodies creation, separation, and orbiting
- Z39 EGU2011-298  
**Salvatore A. Cimorelli** and Charles Samuels  
Explanations for Temperature Increases in the Northern and Southern Atlantic Ocean are Proposed
- Z40 EGU2011-418  
**David Cebron**, Michael Le Bars, Pierre Maubert, and Patrice Le Gal  
Numerical study of tides driven flows in planetary cores and subsurface oceans
- Z41 EGU2011-4594  
**Mikhail Barkin**, Valeriy Bondarenko, Yury Markov, and Vadim Perepelkin  
Dynamic Analysis of a Model of the Axial Rotation of the Earth
- Z42 EGU2011-9008  
**Yury Barkin**  
Cassini's angles and periods of free librations of synchronous satellites in Solar system for their rigid nonspherical models
- Z43 EGU2011-13342  
**Tina Rückriemen**, Doris Breuer, and Tilman Spohn  
Implications of the Fe-snow regime on inner core growth and thermal buoyancy in Ganymede's core
- Z44 EGU2011-11342  
**Miguel de Val-Borro**, Gösta Gahm, Eric Stempels, and Adam Peplinski  
Modelling Line Emission from T Tauri Binaries
- Z45 EGU2011-3364  
Alban Sauret, David Cebron, Stéphane Le Dizès, and **Michael Le Bars**  
Libration-driven zonal flows in planetary fluid cores

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**SSS2.2/EMRP15/GM10.2/PS7.0 – Modeling the Experiment, Experimenting the Models (co-organized) – Orals**  
Convener: Manuel Seeger | Co-Conveners: Luigi Colangeli, Javier Martin-Torres, Nikolaus J. Kuhn, Karsten Seiferlin, Markus Casper, Derek W. G. Sears, Ulrike Scherer, Ruth Ziethe, Tobias Heckmann, Sandra Schumacher

**Room: 9**

Chairperson: Manuel Seeger

- 08:30–08:45 EGU2011-2476  
**Mike Kirkby**  
Modelling overland flow generation on a rough hillslope
- 08:45–09:00 EGU2011-2012  
**Afshin Ghahramani** and Yoshiharu Ishikawa  
Rain splash transport over steep hillslope; modeling of transport
- 09:00–09:15 EGU2011-629  
**Stefan Wirtz**, Manuel Seeger, and Johannes B. Ries  
Experimental validation of basic model assumptions
- 09:15–09:30 EGU2011-5410  
Zhengyao Nie, Gavan McGrath, and **Christoph Hinz**  
Rock particle fragmentation, as an alternative to fluvial transport, explains size sorting on arid hillslopes
- 09:30–09:45 EGU2011-10118  
**Olivier Dewitte**, Claudio Bosco, Miet Van Den Eeckhaut, and Mohamed Daoudi  
A statistical approach to predict gully initiation susceptibility with common spatial data
- 09:45–10:00 EGU2011-1025  
**Aleksey Sidorchuk**  
Stochastic theory of soil erosion: the novel approach to modelling and experimentation

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**COFFEE BREAK**

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Chairperson: Ulrike Scherer, Luigi Colangeli

- 10:30–10:45 EGU2011-1311  
**Michael Dietze** and Arno Kleber  
 Orientation patterns of stone pavements: from field experiments to a physically-based model and towards laboratory experiments
- 10:45–11:00 EGU2011-7977  
**An Van den Putte**, Gerard Govers, Jan Diels, Annemie Leys, Christoph Langhans, and Wim Clymans  
 Can rainfall simulation data be used to parameterize a dynamic infiltration model?
- 11:00–11:15 EGU2011-2287  
**Willem Maetens**, Jean Poesen, and Matthias Vanmaercke  
 Confrontation of the PESERA map with measured soil loss rates at plot scale
- 11:15–11:30 EGU2011-2938  
**Jonathan Merrison**, Haraldur Gunnlaugsson, Christina Holstein-Rathlou, Svend Knak Jensen, Per Nørnberg, and Keld Rasmussen  
 Granular Electrification, Sand Transport and Mineralogy.
- 11:30–11:45 EGU2011-6606  
 Gregor Golabek, Tobias Keller, **Taras Gerya**, Paul Tackley, Guizhi Zhu, and James Connolly  
 Core and early crust formation on Mars
- 11:45–12:00 EGU2011-8070  
**Rafael Escribano**, Oscar Gálvez, Belén Maté, Miguel A. Moreno, Víctor J. Herrero, and F. Javier Martín-Torres  
 Anomalies in the spectra of planetary ice particles

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**LUNCH BREAK**

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Chairperson: Javier Martin Torres

- 13:30–13:45 EGU2011-10584  
**Ha Tran**, Jean-Michel Hartmann, and Geoffrey Toon  
 Line-mixing effects on spectral shape and consequences for laboratory and atmospheric spectra analyses
- 13:45–14:00 EGU2011-8929  
**Ludmilla Kolokolova**  
 Remote Sensing of Aggregated Aerosols Using Photopolarimetry
- 14:00–14:15 EGU2011-13452  
**Enric Pale**  
 Earthshine measurements and extrasolar planet spectral retrieval
- 14:15–14:30 EGU2011-10233  
**Séverine Robert**, Arnaud Mahieux, Valérie Wilquet, Rachel Drummond, Ann Carine Vandaele, Jean Vander Auwera, Yuri Borkov, Valery I. Perevalov, Sergei A. Tashkun, and Jean-Loup Bertaux  
 Analysis of new Absorption Bands of the Carbon Dioxide Isotopologues in Venus Spectra
- 14:30–14:45 EGU2011-2366  
**David Jacquemart**  
 Recent progress in acetylene laboratory measurements for astrophysical applications
- 14:45–15:00 EGU2011-12177  
**Wladimir Neumann**, Doris Breuer, and Tilman Spohn  
 The efficiency of magma heat transport in accreting planetesimals

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**SSS2.2/EMRP15/GM10.2/PS7.0 – Modeling the Experiment, Experimenting the Models (co-organized) – Posters**

Convener: Manuel Seeger | Co-Conveners: Luigi Colangeli, Javier Martin-Torres, Nikolaus J. Kuhn, Karsten Seiferlin, Markus Casper, Derek W. G. Sears, Ulrike Scherer, Ruth Ziethe, Tobias Heckmann, Sandra Schumacher

**Hall Z | Display Time 08:00–17:00**

Author in Attendance: 15:30–17:00

Chairperson: Nikolaus Kuhn

- Z58 EGU2011-8109  
**Pelin Aklik** and Wei Wu  
 Centrifuge modeling of geotextile reinforced slopes
- Z59 EGU2011-13632  
**Constance Bornkampf** and Jürgen Schmidt  
 Experimental research and modelling macropore flow in soils
- Z60 EGU2011-870  
**Tom Coulthard**, Greg Hancock, and John Lowry  
 Modelling soil erosion with a downscaled landscape evolution model



- Z61 EGU2011-1433  
**Stefan Strohmeier** and Andreas Klik  
Erosion Plot Monitoring: Impact of different Tillage Systems on average annual Soil Erosion and the Significance of Extreme Rainfall Events
- Z62 EGU2011-1625  
**Nikolaus J. Kuhn** and Elizabeth K. Armstrong  
Organic Matter erosion from sandy soils: solving the mass balance
- Z63 EGU2011-4123  
**Ulrike Scherer**, Erwin Zehe, Klaus Traebing, and Kai Gerlinger  
Parameterisation of a soil detachment model using rainfall simulation experiments
- Z64 EGU2011-5740  
**Claude Mügler**, Olivier Planchon, Jérémy Patin, Sylvain Weill, Norbert Silvera, Patricia Richard, and Emmanuel Mouche  
Modelling of overland flow and tracer transport experiments under simulated rainfall at plot scale
- Z65 EGU2011-7541  
**Verena Butzen**, Manuel Seeger, Markus Casper, and Johannes B. Ries  
Parameterization of the process-based soil erosion model LISEM by means of experimental measurements
- Z66 EGU2011-7857  
**Mazhar Ali**, Geert Sterk, and Piet Peters  
Influence of hydraulic parameters on sediment transport in shallow flows
- Z67 EGU2011-888  
**Mazhar Ali**, Geert Sterk, Manuel Seeger, and Leo Stroosnijder  
Experimental Estimation of Mean Flow Velocity under Overland Flow
- Z68 EGU2011-12811  
**Lucy Clarke**, Timothy Quine, and Andrew Nicholas  
Experimental study of flow width dynamics on alluvial fans
- Z69 EGU2011-12945  
**Marc Biancheri - Astier**, Valérie Ciarletti, and Alain Reineix  
3D characterization of the deep sub-surface by a bistatic HF GPR operating from the surface
- Z70 EGU2011-4665  
María J. García-Algaba, **Encarnación V. Taguas**, Luciano Mateos, and José A. Gómez  
Describing and modelling the rainfall-runoff pattern of an olive orchard large catchment in Southern Spain
- Z71 EGU2011-875  
**Mary Elise Rumpf**, Sarah Fagents, Christopher Hamilton, and Ian Crawford  
The Search for a Solar Record in Lunar Paleoregoliths through Numerical Modeling and Analogous Experiments
- Z72 EGU2011-2006  
**Hiroko Nagahara** and Kazuhito Ozawa  
Phyllosilicate and its role on the evolution of organic materials in the early solar nebula
- Z73 EGU2011-2378  
**Attila Császár**, Csaba Fábri, and Edit Mátyus  
Toward a Line List for Methane
- Z74 EGU2011-2728  
**Jiri Pavlu**, Martin Beranek, Jakub Vaverka, Ivana Richterova, Zdenek Nemecek, and Jana Safrankova  
Lunar dust simulants (LHT, JSC, MLS) compared in the frame of secondary emission
- Z75 EGU2011-3601  
**Juris Freimanis**  
Polarized radiative transfer equation in some special curvilinear coordinate systems
- Z76 EGU2011-13174  
**Erwan Tréguier**, Albrecht Schmidt, Frédéric Schmidt, Alejandro Cardesín, Stéphane Erard, Patrick Martin, Patrick Pinet, Saïd Moussaoui, and Nicolas Dobigeon  
Analysis of a collection of planetary hyperspectral images through non-negative source separation
- Z77 EGU2011-4899  
**Marie-Claire Gazeau**, Yves Benilan, Et-Touhami Es-Sebbar, Antoine Jolly, Emmanuel Arzoumanian, Nicolas Fray, and Hervé Cottin  
Characterization of continuous vacuum ultraviolet lamps - Implication on the study of methane photolysis at Lyman alpha (121.6 nm)
- Z78 EGU2011-7729  
**Jeremy Guignard**, Misha Bystricky, and Mickael Toplis  
Grain Growth in Experimental Forsterite  $\pm$  Metal  $\pm$  Silicate Melt Systems: Analogues of Chondritic and Achondritic Parent Bodies.
- Z79 EGU2011-9862  
**Alexander Stiegler** and Günter Kargl  
A broadband frequency characterisation of Martian analogue dielectric behaviour

- Z80 EGU2011-11540  
Olivia Golle, **Caroline Dumoulin**, Ondrej Cadek, and Gael Choblet  
A method to compute topography and geoid from viscous convection overlaid by an elastic lithosphere
- Z81 EGU2011-12375  
**Javier Martin-Torres**, Alejandro Soto, Mark Richardson, Ian McEwan, and Javier Gómez-Elvira  
Radiative Transfer Calculations for the REMS/Mars Science Laboratory Ground Temperature Sensors
- Z82 EGU2011-12284  
**Javier Martin-Torres**  
Calculation of Refraction Indices of Mars and Terrestrial Atmospheres Using Spectroscopic Databases
- Z83 EGU2011-2972  
**Jonathan Merrison**, Line Drube, Haraldur Gunnlaugsson, Christina Holstein-Rathlou, Svend Knak Jensen, Jon Mason, Morten Bo Madsen, Per Nørnberg, and Manish Patel  
Research Using the European Mars Simulation Wind Tunnel Facility
- Z84 EGU2011-2727  
**Jakub Vaverka**, Jiri Pavlu, Martin Beranek, Ivana Richterova, Jana Safrankova, and Zdenek Nemecek  
Secondary emission from Martian soil simulant

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### PS8.0 – Habitability in the Solar System: Mars, early Earth, and the outer Solar System – Orals

Convener: Helmut Lammer | Co-Conveners: Jorge L. Vago, Marc Chaussidon, François Raulin, Olga Prieto-Ballesteros

**Room: 29**

Chairperson: Helmut Lammer, Jorge L. Vago,

- 15:30–15:45 EGU2011-3508  
**Jean-Pierre Paul de Vera**, Andreas Lorek, and Alexander Koncz  
Recent Mars: a habitable planet?
- 15:45–16:00 EGU2011-1453  
**Victor Parro** and the ATACAMARS2009 Team  
A new hypersaline habitat in the Atacama subsurface boosts options for life on Mars
- 16:00–16:15 EGU2011-6374  
**Anke Hamann-Reinus**, Markus Kunze, Ulrike Langematz, Mareike Godolt, John Lee Grenfell, Heike Rauer, and Patrick Jöckel  
A parameter study of the atmosphere with a reduced continental distribution with the EMAC-model
- 16:15–16:30 EGU2011-9151  
**Samuel Kounaves**  
The Expected Dominance of Biotic and Abiotic L-Chirality on Mars and in the Solar System
- 16:30–16:45 EGU2011-13365  
**Jean-Luc Josset** and the CLUPI Science Team  
CLUPI: the High-Performance Close-up Camera System on board the 2018 ExoMars Rover.
- 16:45–17:00 EGU2011-1219  
**Julian Chela Flores**  
Evolutionary biomarkers on the icy galilean satellites: from bacteria to metazoans

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### PS8.0 – Habitability in the Solar System: Mars, early Earth, and the outer Solar System – Posters

Convener: Helmut Lammer | Co-Conveners: Jorge L. Vago, Marc Chaussidon, François Raulin, Olga Prieto-Ballesteros

**Hall Z | Display Time 08:00–17:00**

Author in Attendance: 13:30–15:00

Chairperson: François Raulin, Olga Prieto-Ballesteros

- Z46 EGU2011-9690  
**Max Coleman**, Harel Gal, Zeev Ronen, and Noam Weisbrod  
Remarkable habitability of a low water, low organic matter environment fueled by perchlorate
- Z47 EGU2011-10246  
**Amaranta Pucci**, Sergio Branciamore, Luigi Paolo D'Acqui, and Enzo Gallori  
Mineral matrix complexity during prebiotic evolution
- Z48 EGU2011-11352  
**Claude Geffroy**, Neil –Yohan Musadj, Claude Fontaine, and Robert Sternberg  
Possible preservation of amino acids in calcium carbonates

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### ST4.1/PS10.1 – Theory and simulations of solar system plasmas (co-organized) – Orals

Convener: Jörg Büchner | Co-Conveners: Manfred Leubner, Gérard Belmont

**Room: 31**

Chairperson: Gerard Belmont

- 13:30–13:45 EGU2011-8295  
**Michael Hesse**, Seiji Zenitani, and Joachim Birn  
An Analytic Theory of Reconnection in MHD
- 13:45–14:00 EGU2011-12409  
**Marco Velli**  
Coronal Heating and Solar Wind Models: Tests with Solar Probe Plus and Solar Orbiter
- 14:00–14:15 EGU2011-7986  
Melvyn Goldstein and **Arcadi Usmanov**  
Theory and Simulation of Solar Wind Turbulence
- 14:15–14:30 EGU2011-9712  
**Roland Grappin** and Gerard Belmont  
Is there a turbulent cascade in the solar wind?
- 14:30–14:45 EGU2011-1556  
**Lev Zelenyi**, Anton Artemyev, Anatolii Petrukovich, and Rumi Nakamura  
Magnetotail thermal electrons as tracers of thin current sheets fine structure.
- 14:45–15:00 EGU2011-3875  
Tom Chang and **Cheng-chin Wu**  
Roma (Rank-Ordered Multifractal Analysis) of Intermittency in Space Plasmas
- Chairperson: Gerard Belmont
- 15:30–15:45 EGU2011-14162  
**Sven Bingert** and Hardi Peter  
Coronal heating and dynamics in a 3D magneto-hydrodynamic model
- 15:45–16:00 EGU2011-13470  
**Richard D. Sydora**, Keizo Fujimoto, and Konrad Sauer  
Whistler and Alfvén-Whistler Mode Emission from Magnetically Reconnecting Current Layers
- 16:00–16:15 EGU2011-3  
**Ilan Roth**  
Power-law Distributions in Homogeneous Plasmas - Statistical Approach
- 16:15–16:30 EGU2011-2936  
**Pierre-Louis Sulem**, Thierry Passot, Luca Marradi, and Dimitri Laveder  
Turbulence-driven temperature anisotropy and constraining effects of the mirror instability in FLR-Landau fluid simulations
- 16:30–16:45 EGU2011-5765  
**Iku Shinohara** and Masaki Fujimoto  
Electron acceleration at a quasi-perpendicular shock: Results of a 3-D full particle simulation
- 16:45–17:00 EGU2011-6837  
**Håkan Smith**, Eckart Marsch, and Per Helander  
Numerical simulations of electron transport in the solar wind

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#### ST4.1/PS10.1 – Theory and simulations of solar system plasmas (co-organized) – Posters

Convener: Jörg Büchner | Co-Conveners: Manfred Leubner, Gérard Belmont

**Hall Z | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: Gerard Belmont

- Z123 EGU2011-1283  
**Etienne Koen**, Andrew Collier, and Shimul Maharaj  
Simulating chorus generation via Particle-in-cell simulations
- Z124 EGU2011-1492  
**Roberto Soler**, Ramon Oliver, and Jose Luis Ballester  
Magnetohydrodynamic waves in partially ionized astrophysical plasmas: Application to oscillations in solar prominences
- Z125 EGU2011-3271  
**Daniil Korovinskiy**, Viktoria Ivanova, Nikolay Erkaev, Vladimir Semenov, Ivan Ivanov, and Helfried Biernat  
Magnetic double gradient instability in a compressible plasma current sheet
- Z126 EGU2011-4627  
Filiz Türk Katircioglu, Nick Omid, David Sibeck, and **Zerefsan Kaymaz**  
Magnetosheath Cavities in Hybrid Simulations
- Z127 EGU2011-5022  
**Alexey Isavnin**, Emilia K. J. Kilpua, and Hannu E. J. Koskinen  
Grad-Shafranov reconstruction of magnetic clouds at 1 AU
- Z128 EGU2011-6296  
**Ilja Honkonen**, Arto Sandroos, and Minna Palmroth  
Towards a global hybrid Vlasov magnetospheric model: A test particle simulation

- Z129 EGU2011-6777  
**Andrei M. Sadovski**  
Properties of the ion distribution function with velocity space holes
- Z130 EGU2011-8300  
**Rui Pinto**, Laurène Jouve, Sacha Brun, and Roland Grappin  
Coupling the solar dynamo and the corona: wind properties, mass and momentum losses during an activity cycle
- Z131 EGU2011-8496  
**Jörg Büchner**  
The dynamic solar corona - simulation results for solar spacecraft missions
- Z132 EGU2011-9747  
**Roland Grappin**, Andrea Verdini, and Wolf-Christian Müller  
Anisotropy in MHD turbulence with mean field: zero parallel cascade?
- Z133 EGU2011-9893  
**Herbert Gunell**, Johan De Keyser, and Emmanuel Gamby  
Vlasov simulations of magnetic field-aligned potential drops
- Z134 EGU2011-10300  
**Patrick Guio** and Arnaud Zaslavsky  
Effects of density inhomogeneities on the statistics of Langmuir waves in the solar wind
- Z135 EGU2011-11050  
**Rui Pinto** and Roland Grappin  
Alfvén wave driven polar plumes: dependence on the chromospheric conditions
- Z136 EGU2011-11555  
**Miroslav Bárta** and Jörg Büchner  
Fragmentation of CME-generated current sheets via cascading reconnection
- Z137 EGU2011-11800  
**Gabriel Voitcu**, Marius Echim, and Richard Marchand  
Comparative study of forward and backward test-kinetic simulations to investigate anisotropic velocity distribution functions
- Z138 EGU2011-13374  
Nicolas Aunai and **Gerard Belmont**  
Kinetic mechanisms underlying the fluid description of the ions in magnetic reconnection
- Z139 EGU2011-14163  
**Lin-Ni Hau** and B-j Wang  
Generation of Nonlinear Magnetic Disturbances in the Solar Wind
- Z140 EGU2011-11513  
**Dongsheng Cai**, Bertrand Lembège, Ken-ichi Nishikawa, and Amin Esmaeili  
Deformation of the cusp boundary during the IMF rotation from Northward to Southward : 3-D PIC large scale simulation
- Z141 EGU2011-12290  
**Andrey Divin**, Stefano Markidis, Nikolay Erkaev, Vladimir Semenov, and Giovanni Lapenta  
Structure of electron diffusion region of collisionless magnetic reconnection: theory and simulations.
- Z142 EGU2011-2825  
**Laurent Muschietti** and Bertrand Lembège  
Microturbulence in Front of a Supercritical Shock: Stimulation and Inverse Cascade of Waves in the Electron Cyclotron Frequency Range
- Z143 EGU2011-9452  
**Alexander Volokitin**, Vladimir Krasnoselskikh, and Eugeny Kuznetsov  
Langmuir waves excited by an electron beam in plasma with density fluctuations
- Z144 EGU2011-3535  
**Gérard Belmont** and Nicolas Aunai  
Ion kinetic equilibrium for magnetopause-like tangential layers
- Z145 EGU2011-647  
**Daniel Verscharen** and Eckart Marsch  
Compressive high-frequency waves riding on an Alfvén-cyclotron wave in a multi-fluid plasma

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**GM2.2/NH10.3/PS10.2 – Digital Landscapes: From Laser Scanning and High-resolution Measurement Technologies to Quantitative Interrogation of Geomorphic Processes (co-organized) – Orals**

Convener: John K. Hillier | Co-Conveners: Sanjeev Gupta, Lara Kalnins, David Mason, Paolo Tarolli, Paola Passalacqua, Dirk Rieke-Zapp, Balázs Székely, Bernhard Höfle, Norbert Pfeifer, Jim Chandler, Alexander Reiterer

**Room: 21**

Chairperson: n.n.

- 10:30–10:45 EGU2011-633  
**Elina Kasvi**, Hannu Hyyppä, Anttoni Jaakkola, Joni Mäkinen, Juha Hyyppä, and Petteri Alho  
 Estimating sediment features and hydraulic parameters on a sand bedded point bar using LiDAR height and intensity and high resolution UAV-based images
- 10:45–11:00 EGU2011-9479  
**Sarah Derouin** and Lucille Piety  
 Seeing faults through the trees: A case study on using LiDAR in highly vegetated areas to determine fault activity and geomorphology
- 11:00–11:15 EGU2011-4647  
**Francesco Zucca**, Fabio Remondino, Giorgio Agugiaro, Marco Franceschi, Davide Zizioli, and Christian Peloso  
 Mapping the vertical: Oblique LIDAR acquisition for mapping Dolomites cliff (NE Italy)
- 11:15–11:30 EGU2011-11858  
**Christoph Siart**, Markus Forbriger, and Matthieu Ghilardi  
 Fusing surface and subsurface geodata: a case study on Cretan karst landforms
- 11:30–11:45 EGU2011-10198  
**Robert Barneveld**  
 Measuring microtopography with Terrestrial Laser Scanning: Aspects of data quality
- 11:45–12:00 EGU2011-7933  
**Gottfried Mandlbürger**, Johannes Otepka, Wilfried Karel, Markus Hollaus, Camillo Ressler, Alexander Haring, Christian Briese, Gabor Molnar, and Bernhard Höfle  
 OPALS - a comprehensive laser scanning software for geomorphological analysis

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### LUNCH BREAK

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Chairperson: n.n.

- 13:30–13:45 EGU2011-11459  
**Jean-Stephane Bailly** and Carole Delenne  
 Riverbed image simulation for a better exploration of coarse-grained sediment sizing image analysis methods
- 13:45–14:00 EGU2011-3631  
**Thomas Dewez**, Christian Mathon, Hiromi Kobayashi, Aude Nachbaur, Olivier Sedan, Frederic Berger, Emilie Nowak, and Emmanuel Des Garetts  
 Real-size rockfall trajectory and derived mechanical quantities from close-range stereo video experiment in Tahiti, French Polynesia
- 14:00–14:15 EGU2011-1329  
**Dirk Rieke-Zapp**  
 In situ measurement of bedrock erosion
- 14:15–14:30 EGU2011-4479  
**Rafael Caduff**, Fritz Schlunegger, Andrew Kos, Charles Werner, and Andreas Wiesmann  
 Assessment of precise spatial and temporal slope deformation with the GAMMA Portable Radar Interferometer in the Illgraben debris flow catchment, Central Swiss Alps
- 14:30–14:45 EGU2011-5193  
**Chih-Ming Tseng**, Ching Weei Lin, and Jin King Liu  
 Application of High-resolution LiDAR-derived DEM in Landslide Volume Estimation
- 14:45–15:00 EGU2011-4065  
**David Hodgetts**  
 Quantitative geology from digital outcrop data for the characterisation of hydrocarbon reservoirs.
- Chairperson: Paola Passalacqua

- 15:30–15:45 EGU2011-10133  
**Tim Le Bas**, Aaron Micallef, and Philippe Blondel  
 Use of texture analysis techniques for digital mapping of underwater environments: The case of a submerged karstic landscape offshore Malta.
- 15:45–16:00 EGU2011-5594  
**Paolo Tarolli** and Paola Passalacqua  
 The statistical signature of Earth-Surface Processes
- 16:00–16:15 EGU2011-2980  
**Giulia Sofia**, Paolo Tarolli, Federico Cazorzi, and Giancarlo Dalla Fontana  
 Channel network identification from high-resolution DTM: a statistical approach.
- 16:15–16:30 EGU2011-7484  
**John Hillier** and Mike Smith  
 Testing Quantification Methods with Synthetic Drumlins in a real DEM

- 16:30–16:45 EGU2011-2646  
**Florent Levavasseur**, Jean-Stéphane Bailly, Philippe Lagacherie, Colin François, and Rabotin Michaël  
 Uncertainties of water flow-paths in digital cultivated landscape : consequences on overland flows and channel run-off
- 16:45–17:00 EGU2011-9831  
**Jungrack Kim**, ShiYuan Lin, JeongWoo Hong, SangYoon Yun, YougHwi Kim, and HeaWoon Yun  
 Very high resolution Martian topographic data processing and its application for virtual reality implementation

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**GM2.2/NH10.3/PS10.2 – Digital Landscapes: From Laser Scanning and High-resolution Measurement Technologies to Quantitative Interrogation of Geomorphic Processes (co-organized) – Posters**

Convener: John K. Hillier | Co-Conveners: Sanjeev Gupta, Lara Kalnins, David Mason, Paolo Tarolli, Paola Passalacqua, Dirk Rieke-Zapp, Balázs Székely, Bernhard Höfle, Norbert Pfeifer, Jim Chandler, Alexander Reiterer

**Hall A | Display Time 08:00–17:00**

Author in Attendance: 08:30–10:00

Chairperson: n.n.

- A94 EGU2011-923  
**Susanne Schnitzer**  
 Estimation of mass loss due to soil erosion in the Loess Plateau in China: A comparison of the erosion model RUSLE, multi-temporal DEMs and GRACE satellite gravimetry.
- A95 EGU2011-12089  
**Maximilian Sproß**, Erik Bollmann, Andrea Fischer, Lorenzo Rieg, Rudolf Sailer, and Johann Stötter  
 Spatial statistical analysis on glacier surface elevation change based on ALS data
- A96 EGU2011-1147  
**Stefan Harnischmacher** and Harald Zepp  
 Detection and Quantification of Mining Subsidence in the Ruhr District (Germany) Using Historic Maps and Digital Elevation Models
- A97 EGU2011-12173  
**Alberto Guarnieri**, Nicola Milan, Antonio Vettore, and Paolo Tarolli  
 A prototype of landslide observatory in the eastern Italian Alps
- A98 EGU2011-12225  
**Alice Ciulli**, Gianluca Chessa, Leonardo Disperati, Simone Gadenz, and Massimo Perna  
 Topographic units mapping from DEM analysis: evaluation of the Upslope Position Index (UPI) in two Tuscany (Italy) study areas
- A99 EGU2011-12557  
**Vincenzo D'Agostino** and Gabriele Bertoldi  
 Hazard hierarchization of debris flow sediment source areas
- A100 EGU2011-5309  
**Paola Passalacqua**, Colin P. Stark, Yuichi S. Hayakawa, Zhou Lin, Takashi Oguchi, and Tsuyoshi Hattajji  
 The objective mapping of channel initiation and landsliding on lidar DTMs in Japan and their interaction with vegetation
- A101 EGU2011-8188  
**Marco Cavalli**, Sebastiano Trevisani, and Lorenzo Marchi  
 Geomorphometric assessment of spatial sediment connectivity in small alpine catchments
- A102 EGU2011-8286  
**Marco Cavalli**, Sebastiano Trevisani, Beatrice Goldin, Elena Mion, and Lorenzo Marchi  
 Derivation of channel network of an alpine region from high-resolution DTMs: the example of the Autonomous Province of Trento (Italy)
- A103 EGU2011-10449  
**Markus Thiel**, Tobias Heckmann, Florian Haas, and Michael Becht  
 Quantification of coarse sediment connectivity in alpine geosystems
- A104 EGU2011-3804  
**Federico Cazorzi**, Paolo Tarolli, Giulia Sofia, Alberto De Luca, and Giancarlo Dalla Fontana  
 Surface water storage in alluvial and urbanized plains: the effectiveness of high resolution topography
- A105 EGU2011-12442  
**Bastiaan Notebaert**, Piégay Hervé, and Alber Adrien  
 Structural properties of floodplain width in the Rhone catchment: methodology and results
- A106 EGU2011-12580  
**Svetlana Samsonova** and Aleksandr Koshkarev  
 Eco-geomorphological digital model of Moscow city
- A107 EGU2011-11648  
**Wolfgang Schwanghart**, Geoff Groom, Nikolaus J. Kuhn, and Goswin Heckrath  
 Automatic identification of water-logged agricultural areas using LiDAR DEMs

- A108 EGU2011-398  
**pradeep Lodha**  
GIS based critical watershed analysis for soil conservation management using SWAT model
- A109 EGU2011-14048  
**Domenica Costantino** and Maria Giuseppa Angelini  
Production of checked DTM by Terrestrial Laser Scanner (TLS)
- A110 EGU2011-4886  
**Roderick OHara** and Gerhard Neukum  
Refined elevation models and reflectance for HRSC images
- A111 EGU2011-10908  
Luigi Perotti, **Massimo Lanfranco**, Marco Giardino, and Paolo Zamparutti  
Creation and test of a mobile GIS application to support field data collection and mapping activities
- A112 EGU2011-1555  
Lorenzo Picco, Paolo Vitti, Luca Mao, Diego Ravazzolo, **Emanuel Rigon**, Johnny Moretto, and Mario Aristide Lenzi  
Large Woody Debris measurements, in a gravel bed braided river environment, using Terrestrial Laser Scanner: the Piave River study case.
- A113 EGU2011-3570  
**Thomas Dewez**, Aude Nachbaur, Olivier Sedan, Emilie Nowak, and Emmanuel Des Garets  
Monitoring the degradation of weathered volcanic man-made escarpments by close-range photogrammetry in Tahiti, French Polynesia
- A114 EGU2011-4378  
Greg Hancock and **Garry Willgoose**  
Rapid erosion assessment on disturbed site: Quantification of erosion rates using laser scanning and modelling on a mine waste rock dump
- A115 EGU2011-10667  
**Dave Favis-Mortlock**  
The role of high-resolution microtopographic grids in validating the RillGrow model
- A116 EGU2011-12718  
**Michael Winkler**, W. Tad Pfeffer, Klaus Hanke, and Georg Kaser  
Close range photogrammetry reveals recession pattern of Kilimanjaro ice cliffs
- A117 EGU2011-12931  
**Muhammad Anggri Setiawan**  
Evaluation of interpolation methods in tillage surface area
- A118 EGU2011-13663  
**Inna Stepanova**  
On the finding of the earth's surface topography with the help of toda-hierachy
- A119 EGU2011-14050  
**Sierd de Vries**, Roderik Lindenbergh, Sylvie Soudarissanane, and Matthieu de Schipper  
Monitoring short term aeolian beach sand transport using terrestrial laser scanning
- A120 EGU2011-410  
**Tanja Vicovac**, Alexander Reiterer, and Dirk Rieke-Zapp  
Change Detection of Geological Surfaces by Image-Based Sensor Systems
- A121 EGU2011-6204  
**Luca Carturan**, Simone Calligaro, Alberto Guarnieri, Nicola Milan, Paolo Tarolli, Daniele Moro, Giovanni Baldassi, Federico Cazorzi, Antonio Vettore, and Giancarlo Dalla Fontana  
Terrestrial Laser Scanner survey of two small glacial formations in the Eastern Italian Alps
- A122 EGU2011-11627  
**Hubert Lehner**, Christian Briese, and Rudolf Sailer  
Radiometric calibration of airborne laser scanning data: case study rockglaciers
- A123 EGU2011-6847  
**Rudolf Sailer**, Erik Bollmann, Johann Stötter, Susanna Hoinkes, Lorenzo Rieg, and Maximilian Spross  
Quantification of morphodynamic processes in glaciated and recently deglaciated terrain
- A124 EGU2011-10541  
**Ekaterina Vsemirnova**, Richard Jones, Jiulin Guo, and Kenneth McCaffrey  
Quantitative characterization of fracture networks using terrestrial lidar data, an example from high porosity sandstones at Appleby, UK
- A125 EGU2011-10815  
**Luigi Perotti**, Marco Bacenetti, Marco Giardino, and Stefano Marta  
Geomorphological and geostructural characterisation of Veny Valley (Courmayeur, Italy) using an integrated field-based, Lidar and Remote Sensing techniques
- A126 EGU2011-8362  
**Petteri Alho**, Matti Vaaja, Elina Kasvi, Antero Kukko, Hannu Hyyppä, Juha Hyyppä, Harri Kaartine, Matti Kurkela, and Claude Flener  
Multitemporal MLS data and terrestrial photogrammetry in a change detection of point bars

- A127 EGU2011-12268  
**Markus Forbriger**, Karsten Schitteck, Christoph Siart, and Bernhard Höfle  
New approaches in vegetation mapping - use of terrestrial laser scanning on high Andean cushion peatlands
- A128 EGU2011-13847  
**Andreas Roncat**, Balázs Székely, Gábor Molnár, András Zámolyi, Angelika Pocsai, and Camillo Ressel  
High-resolution terrestrial laser scanning of temporary small-scale terraces in a dynamic landscape - a pilot study at the Doren landslide
- A129 EGU2011-14039  
**Andreas Roncat**, Yuri Dublyansky, Christoph Spötl, Peter Dorninger, and Norbert Pfeifer  
A full-3D laser-scan mapping of a hypogene cave: a morphogenetic study of Märchenhöhle, Austria
- A130 EGU2011-10670  
**Markus Hollaus**, Norbert Pfeifer, Andreas Roncat, and Hieu Van Duong  
Analyzing ICESat/GLAS derived terrain roughness parameter using airborne LiDAR data
- A131 EGU2011-8673  
**Martin Rutzinger**, Bernhard Höfle, and Korbinian Kringer  
Quality of geomorphological breaklines extracted from airborne laser scanning
- A132 EGU2011-8512  
Cristina Castagnetti, Eleonora Bertacchini, **Alessandro Capra**, Marco Dubbini, Riccardo Rivola, and Alessandro Corsini  
Integrating LIDAR and terrestrial laser scanning for a detailed description of landslides geomorphology



