



**Max-Planck-Institut
für Sonnensystemforschung**

*Max Planck Institute
for Solar System Research*

**Tätigkeitsbericht 2012
*Activity Report 2012***



MAX-PLANCK-GESELLSCHAFT

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1. Wissenschaftliche Zusammenarbeit / *Scientific collaborations*

1.1 Wissenschaftlich Gäste (mit Aufenthalt ≥ 1 Woche)

Scientific guests (with stay ≥ 1 week)

- Miroslaw Barta** (Astronomical Institute of the Czech Academy of Science, Ondrejov, Czech Republic), May and Sep (host: Büchner)
- Alexander Basilevsky** (Bernadsky Institute, Moscow, Russia), 01 Jun – 31 Aug (host: Markiewicz)
- Ravindra Belur** (Indian Institute of Astrophysics Bangaluru, India), 19 - 29 Mar (host: Solanki)
- Lokesh Bharti** (Astronomy & Astrophysics Laboratory, Udaipur, India), 21 Oct – 16 Nov (host: Solanki)
- Anusha Bhasari** (Indian Institute of Astrophysics, Bangaluru, India), 09 Jan – 09 Mar (host: Solanki)
- Reetam Biswas** (Indian Institute of Technology, Kharagpur, India), 03 Mai – 17 Jul (host: Gizon)
- Nikolay Borisov** (Institute of Terrestrial Magnetism, Ionosphere and Radio Waves Propagation (IZMIRAN), Troitsk, Russia) 14 Mai – 15 Jun (host:Krüger)
- Nikolay Borisov** (Institute of Terrestrial Magnetism, Ionosphere and Radio Waves Propagation (IZMIRAN), Troitsk, Russia), 31 Oct – 26 Nov (host: Fraenz)
- Alexey Burlakow** (Space Research Institute (IKI), Moscow, Russia), 01 – 15 Feb (host: Hartogh)
- Lihui Chai** (School of Earth and Space Sciences, University of Science and Technology of China, Hefei China), 15 Sep - 14 Sep 2013 (host: Büchner)
- Gwangson Choe** (School of Space Research, Kyung Hee University, Yongin, Korea), 29 Aug - 31 Oct (host: Büchner, Solanki)
- Andrzej Czechowski** (Space Research Centre, Warsaw, Poland), 10 Oct – 30 Nov (host: Hilchenbach)
- Aissatou Diallo** (LISA, Paris, France), 01 Apr – 01 Jun (host: Goesmann)
- Jakob Deller** (University of Kent, Canterbury, UK), 15 Oct – 09 Nov (host: Snodgrass)
- Bohla N. Dwivedi** (Banares Hindu University, Varanasi, India), 12 – 25 Jun (host: Curdt)
- Nadia Evdokimova** (Space Research Institute (IKI), Moscow, Russia), 01 Feb – 31 Mar (host: Hartogh)
- Li Feng** (Purple Mountain Observatory, Nanjing, China), 26 Mai – 10 Sep (host: Inhester)
- Antonio Ferriz-Mas** (University of Vigo, Orense, Spain), 05 – 12 Aug (host: Schmitt)
- Alberto Flandes** (Ciencias Espaciales, Instituto de Geofisica, UNAM, Mexico), 01 Jun - 15 Jul (host: Krüger)
- Elena Grigorenko** (Space Research Institute (IKI), Moscow, Russia), 11 - 17 Mar (host: Daly, Kronberg)
- Attila Hirn** (MTA EK, Budapest, Hungary), 12 Sep – 11 Oct (host: Krüger)
- Nikolay Ignatiev** (Space Research Institute (IKI), Moscow, Russia), 01 – 10 Nov (host: Markiewicz)
- Emre Isik** (Istanbul Kultur University, Istanbul, Turkey), 23 Jan – 03 Feb (host: Schuessler)
- Hyunnam Kim** (School of Space Research, Kyung Hee University, Yongin, Korea), 14 Mar - 10 Jun (host: Solanki)
- Sanhyuk Kim** (School of Space Research, Kyung Hee University, Yongin, Korea), 19 Mar - 10 Jun (host: Solanki)
- Sunjung Kim** (School of Space Research, Kyung Hee University, Yongin, Korea), 14 Mar – 10 Jun, 25 Jun – 22 Aug (host: Gizon, Solanki)

- Viktor Korokhin** (Institute of Astronomy of Kharkiv National University, Kharkiv, Ukraine), 10 Sep - 11 Oct (host: Mall)
- Konrad Kossacki** (Warsaw University, Warsaw, Poland), 27 Aug – 30 Sep (host: Markiewicz)
- Pankaj Kumar** (KASI, Daejeon, Korea), 30 Jul – 30 Aug (Innes)
- Takeshi Kuroda** (Tokoku University, Sendai, Japan), 03 Sep – 06 Oct (host: Hartogh)
- Junggi Lee** (School of Space Research, Kyung Hee University, Yongin, Korea), 14 Mar - 10 Jun, 30 Jun - 01 Aug (host: Büchner, Solanki)
- Kyoung-Sun Lee** (School of Space Research, Kyung Hee University, Yongin, Korea), 26 Jan - 14 Mar (host: Innes, Solanki)
- Zhong Yi Lin** (National Central University, Taiwan), 01 Oct - 10 Nov (host: Hilchenbach)
- Hao Luo** (Institute of Geophysics, Beijing, China), 01 Nov – 01 Mar (host: Fraenz)
- Sadollah Nasiri** (Zanjan University, Iran), 19 Sep - 18 Sep 2013 (host: Solanki)
- Dieter Nickeler** (Astronomical Institute of the Czech Academy of Science, Ondrejov, Czech Republic), 03 - 30 Jun (host: Wiegelmann)
- Constantin Oprea** (Institute of Geodynamics of the Romanian Academy, Bucharest, Romania), 21 Oct – 23 Nov (host: Inhester)
- Antonius Otto** (University of Alaska, Fairbanks, USA), 08 Dec - 13 Jan 2013 (host: Büchner)
- Jinyhe Park** (School of Space Research, Kyung Hee University, Yongin, Korea), 26 Jan - 29 Feb, 25 Jun - 22 Aug (host: Innes, Solanki)
- Elena Petrova** (Space Research Institute (IKI), Moscow, Russia), 01 Oct – 15 Nov (host: Markiewicz)
- Silvia Protopapa** (University of Maryland, College Park, USA), 23 Sep - 13 Oct (host: Boehnhardt)
- Nour-Eddine Raouafi** (John Hopkins University, Laurel, USA), 15 Jan – 15 Feb (host: Solanki)
- Anatoly Remizov** (Space Research Institute (IKI), Moscow, Russia), 15 Jun – 14 Sep (host: Hilchenbach, Krupp)
- Alexander Rodin** (Space Research Institute (IKI), Moscow, Russia), 01 - 15 Feb (host: Hartogh)
- Jean Carlo Santos** (Universidade de Brazilia, Brazil), 20 – 29 Feb (host: Büchner)
- Gerd Sonnemann** (Institute of Atmospheric Physics, Kühlungsborn, Germany), 01 – 31 Oct (host: Hartogh)
- Larissa Starukhina** (Institute of Astronomy of Kharkiv National University, Kharkiv, Ukraine), 22 Oct – 19 Nov (host: Mall)
- Hui Tian** (High Altitude Observatory, Boulder, USA), 31 Jan – 17 Feb (host: Curdt)
- Xiaowei Zhao** (Purple Mountain Observatory, Nanjing, China), 15 Sep – 14 Sep 2013 (host: Büchner)
- Hongqui Zhang** (National Observatory, CAS, Beijing, China), 16 – 25 Apr (host: Büchner)
- Qiu-Gong Zong** (Peking University, Beijing, China), 21 – 29 Jun (host: Daly, Haaland)

1.2 Aufenthalt (≥ 1 Woche) von Wissenschaftlern des MPS an anderen Instituten

Visits (≥ 1 week) of MPS scientists to other institutes

Marco Bierwirth: Jet Propulsion Laboratory, Pasadena, USA, 14 Mai - 25 Mai

Robert Cameron: NAOC, Beijing, China, 12 Aug – 09 Sep

Laurent Gizon: Observatoire de Paris-Meudon, France, 26 Apr – 03 Mai

Laurent Gizon: Courant Institute of Mathematical Sciences, New York, USA, 09 Aug – 23 Aug

Laurent Gizon: Princeton University, Princeton, USA, 09 Aug – 23 Aug

Walter Goetz: Jet Propulsion Laboratory, Pasadena, USA, 01 Aug – 07 Nov

Stein Haaland: ISSI, Bern, Switzerland, 15 Oct – 27 Oct

Martin Hilchenbach: Dartmouth College, Hanover, USA, 19 Sep – 02 Oct

Miriam Rengel: SRON, Groningen, The Netherlands, 25 Mar – 30 Mar

Elias Roussos: Institute of Astronomy, National Central University, Taipei, Taiwan, 04 Mar – 11 Mar

Dieter Schmitt: Institute of Theoretical and Applied Physics, Turunc-Marmaris, Turkey,
17 Sep – 24 Sep

Colin Snodgrass: Las Cumbres Observatory, Santa Barbara, USA, 01 Feb – 11 Feb

Colin Snodgrass: European Southern Observatory, Garching, Germany, 02 Apr – 11 Mai

Sami K. Solanki : School of Space Research, Kyung Hee University, Seoul, Korea, 14 Apr - 05 Mai, 24
Aug – 18 Dec

Vasyliunas: Center for Atmospheric Research, University of Massachusetts, Lowell, USA,
04 Jun - 12 Jun

Yong Wei: Institute of Geology and Geophysics at CAS, Beijing, China, 01 Aug – 12 Aug

1.3 Projekte in Zusammenarbeit mit anderen Institutionen

Projects in collaboration with other institutions

Analysis and calibration of historical Ca II spectroheliograms

N. A. Krivova, S.K. Solanki and Anuradha Kar in collaboration with I. Ermolli (INAF Osservatorio Astronomico di Roma, Italy).

Application of MHD-equilibrium theory to Cluster data

E. Kronberg in collaboration with D. Nickeler (Astronomical Institute AV CR Ondrejov); E. Panov (Space Research Institute, Austrian Academy of Sciences, Graz, Austria).

A Search for Rising Magnetic Flux Concentrations

A. C. Birch in collaboration with D. Braun (NWRA, Boulder, USA); Y. Fan (HAO, Boulder, USA).

Asymmetry of bipolar active regions

D. Schmitt in collaboration with A. Ferriz Mas (Universidad de Vigo, Orense, Spain).

ASTROD I (Astrodynamical Space Test of Relativity using Optical Devices I)

L. Gizon in collaboration with T. Appourchaux (IAS, Orsay, France); W.-T. Ni (Purple Mountain Observatory, Nanjing, China).

BEIRUS

U. Mall in collaboration with H. Nothaft, Siek (AIM, Heilbronn, Germany).

BepiColombo – BELA (Laser Altimeter)

R. Kallenbach, U. Christensen, H. Perplies and M. Hilchenbach in collaboration with N. Thomas, W. Benz, K. Gunderson, K. Seiferlin (Physikalisches Institut, Universität Bern, Switzerland); T. Spohn, E. Hauber, H. Michaelis, J. Oberst (DLR – Institut für Planetenforschung, Berlin, Germany); G. Beutler (Astronomisches Institut, Universität Bern, Switzerland); C. Fallnich (Laser Zentrum Hannover, Germany); D. Giardini (Institute of Geophysics, ETHZ, Zurich, Switzerland); O. Groussin (University of Maryland, College Park, USA); L. Jorda, P. Lamy (Laboratoire d'Astrophysique de Marseille, Marseille, France); L.-M. Lara, J. J. Lopez-Moreno, R. Rodrigo (Instituto de Astrofísica de Andalucía, Granada, Spain); P. Lognonné (Institut de Physique du Globe de Paris, Saint Maur des Fossés, France); D. Resendes (Instituto Superior Técnico, Universidade Técnica de Lisboa, Lisboa, Portugal).

BepiColombo – MERTIS (Mercury Thermal Infrared Spectrometer)

U. Mall in collaboration with K. Jessberger (Universität Münster, Germany); DLR Institut für Planetenforschung (Berlin, Germany).

BepiColombo – MIXS

U. Christensen, M. Hilchenbach in collaboration with G.W. Fraser (PI) (University of Leicester, UK).

BepiColombo – MPPE-MSA (Mass Spectrum Analyzer as part of the Mercury Plasma Particle Experiment)

N. Krupp, M. Fraenz, A. Loose, H. Fischer, and U. Bührke in collaboration with D. Delcourt (Laboratoire de Physique des Plasmas - LPP, Paris, France); Y. Saito (Jaxa/ISAS, Tokyo, Japan).

BepiColombo – SERENA-PICAM (Planetary Ion CAMera) – Detector unit of the Neutral and Charge Particle Analyzers SERENA (Search for Exospheric Refilling and Emitted Natural Abundances).

M. Fraenz, N. Krupp, A. Loose, and J. Woch in collaboration with S. Orsini (PI) (IFSI, Roma, Italy); K. Torkar (Institut für Weltraumforschung, Graz, Austria); J.-J. Berthelier (LPP-CNRS, St. Maur des Fosses, France); P. Escoubet (ESTEC, Noordwijk, The Netherlands); F. Leblanc (IPSL, Verrieres-Le-Buisson, France); K. Szego (Centre for Energy Research, Hungarian Academy of Sciences, Budapest, Hungary); O. Vaisberg (IKI, Moscow, Russia).

CASSINI – MIMI/LEMMS (Low Energy Magnetospheric Measurement System of the Magnetospheric Imaging Instrument: data analysis).

N. Krupp, E. Roussos, A. Lagg, M. Andriopoulou, A. Kotova in collaboration with S. M. Krimigis, D. G. Mitchell, C. Paranicas, P. Kollmann (Applied Physics Laboratory, Johns Hopkins University, Laurel, MD, USA); D. Hamilton (University of Maryland, College Park, MD, USA); I. Dandouras (IRAP, Toulouse, France); T. P. Armstrong (Fundamental Technologies, Kansas, USA).

CAST (CERN Axion Solar Telescope)

S.K. Solanki and L. Gizon in collaboration with CAST experiment team (CERN, Genève, Switzerland).

Castalia - Study of a mission to an Main Belt Comet

H. Boehnhardt, M. Hilchenbach, H. Sierks and C. Snodgrass in collaboration with Fitzsimmons (Queens University, Belfast, UK); Braukhane, Hallmann (DLR SpaceSystems, Bremen, Germany); Homeister (OHB Company, Bremen, Germany); G. Jones (University College, London, UK); Herique, Kofman (University Grenoble, Grenoble, France); H. Hsieh (University of Hawaii, Hilo, USA); Alibert, Altwegg, Bieler, Schläppi (University Bern, Bern, Switzerland); Prialnik (University Tel Aviv, Tel Aviv, Israel); Hainaut (ESO, Garching, Germany); Capria (INAF Rome, Rome, Italy); Miettinen, Pentilla, Zubko (University Helsinki, Helsinki, Finland); Fernando, Lara (IAA Granada, Granada, Spain); Bertini, Mazari (INAF Padova, Padova, Italy); Davidsson (University Uppsala, Uppsala, Sweden); Lowry (University Kent, Canterbury, England); Jehin (University Liege, Liege, Belgium); Licandro (IAC Tenerife, Santa Cruz, Spain); Bowles, Thomas (University Oxford, Oxford, England); Küppers (ESAC, Villafranca, Spain); Pätzold (University Köln, Köln, Germany); Trieloff (University Heidelberg, Heidelberg, Germany).

Chandrayaan-1 – SIR-2

U. Mall in collaboration with N. Goswami (PRL, Ahmedabad, India).

CHOPPER

U. Mall in collaboration with P. Wurz, K. Altwegg (Universität Bern, Switzerland).

Climate forcing reconstructions for use in PMIP simulations of the Last Millennium

N. Krivova and S.K. Solanki in collaboration with G.A. Schmidt, D.T. Schindell (NASA Goddard Institute for Space Studies and Center for Climate Systems Research, Columbia University, New York, USA); J.H. Jungclauss (MPI for Meteorologie, Hamburg, Germany); C.M. Ammann, B.L. Otto-Bliesner (NCAR, Boulder, USA); T.J. Crowley (School of GeoSciences, University of Edinburgh, UK); F. Joos (University of Bern, Switzerland); G. Delaygue (Université Joseph Fourier -Grenoble/CNRS, France); R. Muscheler (Lund University, Sweden); F. Steinhilber (Carnegie Institution of Washington, Stanford, USA); J.Pongratz (EAWAG, Duebendorf, Switzerland).

Cluster II – CIS (Cluster Ion Spectrometer)

M. Fraenz, P.W. Daly, and Y. Wei in collaboration with I. Dandouras (PI) (CESR, Toulouse, France); MPI für extraterrestrische Physik (Garching, Germany); Universities of New Hampshire, Washington, Seattle, Berkeley (USA).

Cluster II – Cusp electrons

S. Haaland in collaboration with B. Walsh (Boston University, Boston, USA).

Cluster II – Ion outflow

S. Haaland in collaboration with M. Andre, A. Eriksson, E. Engwall (Uppsala University, Uppsala, Sweden); B.Lybekk, A.Pedersen (University of Oslo, Oslo, Norway); C. Johnsen, N. Ostgaard (University of Bergen, Bergen, Norway); M. Foerster (Geoforschungszentrum Potsdam, Potsdam, Germany); K. Li, H. Zhao, Q.Y. Ren (Chinese Academy of Science, Beijing, China); B. Sonnerup (Dartmouth College, Hanover, USA); G. Paschmann (Max-Planck Institut für extraterrestrische Physik, Garching, Germany).

Cluster II – RAPID (Particle spectrometer RAPID); Data analysis

P.W. Daly (PI), E. Kronberg, and J. Büchner in collaboration with Q.G. Zong, Z.Y. Pu, S.Y. Fu (Beijing University, Beijing, China); T.A. Fritz, (BU, Boston, USA); M. Yamauchi (IRF, Kiruna, Sweden); H.S. Fu (IRF, Uppsala, Sweden); G. D. Reeves, R.H.W. Friedel (LANL, Los Alamos, USA); D. N. Baker

(LASP, Boulder, USA); C.H. Perry, J. Davies, M. Dunlop (RAL, Didcot, UK); M.G.G.T. Taylor (ESTEC, The Netherlands); A.T.Y. Lui (APL, John Hopkins University, Laurel, USA); W.-L. Teh, R. Wang (IWF, Graz, Austria); K. Nykyrii (Embry-Riddle Aeronautical University, Daytona, USA); Arpad Kis (Geodetic and Geophysical Institute, Hungarian Academy of Science, Sopron, Hungary); Y. Shpits (UCLA, Los Angeles, USA); E. Grigorenko (IKI, Moscow, Russia); I. Silin (University of Alberta, Canada).

Cluster Active Archive and German Cluster Data Centre (CAA, GCDC, archiving of RAPID-EDI data)
P.W. Daly and E. Georgescu in collaboration with M. Taylor, H. Laakso (ESA); C. H. Perry, J. Davies (RAL, Didcot, UK).

Collaborative Research Center 963 "Astrophysical Flow Instabilities and Turbulence" - From solar to heliospheric flows and instabilities

J. Büchner in collaboration with V. Bothmer (University of Göttingen, Germany).

Collaborative Research Center 963 "Astrophysical Flow Instabilities and Turbulence" - Simulation of reconnection and dynamo action in turbulent plasma flows

J. Büchner in collaboration with W. Schmidt (University of Göttingen, Germany).

Collaborative Research Center 963 "Astrophysical Flow Instabilities and Turbulence" - Magnetic fields and dynamos: from planets to low-mass stars

U. Christensen in collaboration with A. Reiners (University of Göttingen, Germany).

Collaborative Research Center 963 "Astrophysical Flow Instabilities and Turbulence" - Origin and structure of magnetic fields in cool stars

M. Schuessler in collaboration with A. Reiners (University of Göttingen, Germany).

Collaborative Research Center 963 "Astrophysical Flow Instabilities and Turbulence" - Solar turbulent convection probed by helioseismology

L. Gizon and J. Langfellner in collaboration with T. Hohage, D. Fournier, M. Holzke (University of Göttingen, Germany).

Collaborative Research Center 963 "Astrophysical Flow Instabilities and Turbulence" - Asteroseismology and dynamos in solar-like stars

L. Gizon, E. Papini and H. Schunker in collaboration with University of Göttingen (Germany).

Comparative analysis of plasma environment at Mars and Venus

M. Fraenz in collaboration with U. Motschmann, K. H. Glassmeier (TU Braunschweig, Germany).

Comparative helioseismic study of Active Region 9787

L. Gizon, A. C. Birch and H. Schunker in collaboration with H. Moradi (Monash University, Australia), D. C. Braun (CoRA, Boulder, USA); R. Bogart (Stanford University, USA); T. L. Duvall Jr. (NASA GSFC, Greenbelt, USA); I. González Hernández, R. Komm (NSO, Tucson, USA); D. Haber (JILA, Boulder, USA).

Comparison of Inversion Codes

A. Lagg in collaboration with J. M. Borrero, R. Rezai (KIS, Freiburg, Germany); A. Asensio Ramos, A. Lopez Ariste, H. Socas-Navarro (IAC, La Laguna, Spain); B. Lites, M. Rempel (HAO, Boulder, USA); T. Carroll (AIP, Potsdam, Germany); N. Vitas (Sterrenkundig Instituut Utrecht, The Netherlands); B. Viticchie (ESA/ESTEC, Noordwijk, The Netherlands).

Computer Models of Solar Eruptions

J. Büchner in collaboration with J. Santos (University of Brazilia, Brazilia, Brazil).

CoRoT Program „Asteroseismology of Sun-like host HD 52665“

L. Gizon in collaboration with T. Stahn (University of Göttingen, Germany); J. Ballot, S. Vauclair, G. Vauclair (Observatoire Midi-Pyrenees, Toulouse, France); E. Michel, A. Baglin (Observatoire de Paris, Meudon, France).

COSIMA - cometary jets

M. Hilchenbach in collaboration with Z. Y. Lin, W. Ip (National Central University, Taipeh, Taiwan).

Cosmic-ray propagation

M. Schuessler in collaboration with B. Heber (Universität Kiel, Germany); H. Fichtner (Universität Bochum, Germany).

Coupled spin models for geomagnetic reversals

D. Schmitt and J. Wicht in collaboration with N. Mori, M. Morikawa (Ochanomizu University, Tokyo, Japan); A. Ferriz Mas (Universidad de Vigo, Orense, Spain).

Cross-helicity dynamo models

D. Schmitt in collaboration with N. Yokoi (Institute of Industrial Science, Tokyo, Japan).

Database MBOSS2 on minor bodies in the outer solar system

H. Boehnhardt in collaboration with Olivier Hainaut (ESO, Garching, Germany); Silvia Protopapa (University of Maryland, College Park USA).

DAWN

A. Nathues, U. Christensen, P. Gutierrez, I. Hall, L. Le Corre, V. Reddy, S. Schroeder, J.-B. Vincent, and M. Hofmann in collaboration with R. Jaumann, S. Mottola (DLR/Institut für Planetenforschung, Berlin, Germany); H. Michalik, B. Fiethe (Institut für Datentechnik und Kommunikationsnetze, Braunschweig, Germany); C. Russell, C. Raymond (University of California, Los Angeles, USA); K. C. Patel, E. Miller (Jet Propulsion Laboratory, Pasadena, USA).

DFG-ISDUST (Interstellar Dust in the Solar System)

H. Krüger in collaboration with Nicolas Altobelli (ESA/ESAC, Villafranca, Spain); Mihaly Horanyi (LASP, University of Colorado, Boulder, USA); Veerle Sterken, Eberhard Grün, Ralf Srama (MPI für Kernphysik, Heidelberg, Germany).

DFG Priority Programme 1176: Climate and Weather of the Sun-Earth-System (CAWSES). Influence of the mean circulation on gravity wave generation.

P. Hartogh and A. Medvedev in collaboration with T. Kuroda (Tohoku University, Sendai, Japan); E. Yigit (University of Michigan, Ann Arbor, MI, USA)

DFG Priority Programme 1176: Climate and Weather of the Sun-Earth-System (CAWSES). Investigation of the solar influence on middle atmospheric water vapour and ozone during the last solar cycle – analysis of the MPS data set.

P. Hartogh and C. Jarchow in collaboration with G. Sonnemann, U. Berger, M. Grygalashvily (Leibniz-Institut für Atmosphärenphysik, Kühlungsborn, Germany).

DFG Priority Programme 1176: Climate and Weather of the Sun-Earth-System (CAWSES). Support proposal for refurbishment and replacement of a microwave spectrometer to be used in the priority programme CAWSES.

C. Jarchow in collaboration with F.-J. Lübken (Leibniz- Institut für Atmosphärenphysik, Kühlungsborn, Germany).

DFG Priority Programme 1176: Climate and Weather of the Sun-Earth-System (CAWSES). Models of solar total and spectral irradiance variability of relevance for climate studies (SOLIVAR).

N. A. Krivova and S. K. Solanki in collaboration with Freie Universität Berlin (Germany); Institut für Umweltphysik (Universität Bremen, Germany); MPI für Meteorologie (Hamburg, Germany).

DFG Priority Programme 1488 - Planetary Magnetism. Intrinsic and Induced Magnetic Fields of the Terrestrial Planets and Their Influence on Atmospheric Escape and Water Inventory.

M. Fraenz, Y. Wei, and J. Woch in collaboration with U. Motschmann (TU Braunschweig, Germany).

DFG Priority Programme 1488 - Planetary Magnetism. *Towards realistic models for the interior dynamics of Jupiter and Saturn.*

U. Christensen and J. Wicht in collaboration with R. Redmer (Universität Rostock, Germany); S. Stellmach (Universität Münster, Germany); N. Nettelmann (University of California, Santa Cruz, USA).

DFG Priority Programme 1488 – Planetary Magnetism. *Constraining the magnetic connection of Jupiter's and Saturn's ring planes with their stratospheres.*

P. Hartogh, A. Medvedev, L. Rezac and C. Jarchow in collaboration with T. Cavalié, F. Billebaud, M. Dobrijevic (University of Bordeaux, France); J. Saur (Universität Köln; Germany); E. Lellouch, R. Moreno (Observatoire de Paris, Meudon, France).

Diagnostics of magnetoconvection

M. Schüssler and S. K. Solanki in collaboration with S. Shelyag (University of Sheffield, UK); A. Vögler (Universität Utrecht, The Netherlands).

DLR/ESA collaborative ‘Gossamer Roadmap’ for solar sail technology demonstration in orbit

L. Gizon in collaboration with M. Macdonald (University of Strathclyde, UK); R. Reinhard, R. Marsden (ESA); T. Appourchaux (IAS, Paris, France); D. Romagnoli, P. Spietz, U. R.M.E. Geppert (DLR, Germany); R. F. Wimmer-Schweingruber (Universität Kiel, Germany); T. Sekii (NOAJ, Tokyo, Japan).

Dynamics in the transition region and corona

H. Peter in collaboration with C.-Y. Tu, J. He (Peking University, Beijing, China).

EChO (Exoplanet Characterisation Observatory)

P. Hartogh, C. Jarchow, U. Mall, M. Rengel, A. Medvedev, L. Rezac, N. Krupp, and W. Markiewicz in collaboration with G. Tinetti, B. Swinyard, G. Branduardi-Raymont (University College London, UK); J.-P. Beaulieu, M. Ollivier (Institut d'Astrophysique de Paris, France); G. Micela, G. Malaguti, G. Piccioni, A. Sozzetti (INAF Osservatorio Astronomico di Palermo, Italy); H.U. Nørgaard-Nielsen. A. Hornstrup (Danish Space Research Institute, Copenhagen, Denmark); I. Ribas, M. Lopez-Morales (CSIC-ICE, Bellaterra, Spain); M. Swain, P. Deroo (JPL, Pasadena, USA); N. Bowles (University of Oxford, UK); V. Coudé du Foresto, A. Coustenis (Observatoire de Paris, France); M.R. Zapatero Osorio (INTA-CAB, Madrid, Spain); D. Grodent (Université de Liège, Belgium); G. Kovacs (Konkoly Observatory, Budapest, Hungary); P.-O. Lagage (CEA-Saclay, France); T. Lim (Rutherford Appleton Laboratory, Didcot, UK); E. Pace (Università di Firenze, Italy); Enric Pallé (Instituto de Astrofísica de Canarias, Tenerife, Spain); E. Pascale (Cardiff University, UK); G. Wright (UK Astronomy Technology Centre, Edinburgh, UK).

Europa-Explorer

U. Christensen and N. Krupp in collaboration with DFKI (Bremen, Germany).

EUROPLANET-RI (European Planetology Network)

N. Krupp in collaboration with IRAP (Toulouse, France); FMI Helsinki (Finland); University Nantes (France); Observatoire Paris (France); University Grenoble (France); Imperial College (London, UK); KFKI (Budapest, Hungary).

ExoMars – MOMA

F. Goesmann (PI), M. Bierwirth, H. Steining, W. Goetz, M. Hilchenbach, O. Roders, and E. Steinmetz in collaboration with Paul Mahaffy, Will Brinckerhoff (NASA GSFC, Greenbelt, USA); R. Cotter (Johns Hopkins School of Medicine, Baltimore, USA); C. Szopa (LATMOS, Paris, France); F. Raulin (LISA, Paris, France).

ExoMars – RAMAN – LIBS

M. Hilchenbach in collaboration with F. Rull (PI) (Centro de Astrobiología (CSIC/INTA, Madrid, Spain).

Fast solar polarimeter

A. Feller and S. K. Solanki in collaboration with L. Strüder (MPI Halbleiterlabor, Munich, Germany); H. Soltau (PNSensor, Munich, Germany).

Field morphology of geodynamo models

U. Christensen and J. Wicht in collaboration with A. Reiners (Universität Göttingen, Germany); P. Olson (John Hopkins University, Baltimore, USA).

Forward and inverse modeling in helio- and geophysics

L. Gizon and S.H. Hanasoge in collaboration with J. Tromp (Princeton University, USA).

Galileo – EPD (Energetic Particles Detector); Data analysis

N. Krupp, A. Lagg and E. Kronberg in collaboration with B. Mauk, C. Paranicas, A. Rymer (Applied Physics Laboratory, John Hopkins University, Laurel, USA); S. Kasahara (JAXA, Japan); K.K. Khurana (UCLA, Los Angeles, USA); M. Freeman (British Antarctic Survey, GB); C. Jackman (UCL, GB).

GBSO – Ground Based Solar Observations

A. Gandorfer, J. Hirzberger, A. Lagg, A. Feller, F. Rubio da Costa, van Noort and S. K. Solanki in collaboration with M. Collados (IAC, La Laguna, Tenerife, Spain); A. López Ariste (THEMIS, La Laguna, Tenerife, Spain); D. Fluri, N. Afram (ETH Zürich, Switzerland); K. Puschman, E. Wiehr (Institut für Astrophysik, Universität Göttingen, Germany); S. Stangl (Institut für Physik, Universität Graz, Austria); Kiepenheuer-Institut für Sonnenphysik (Freiburg, Germany); Institute for Solar Physics of the Royal Swedish Society (Stockholm, Sweden).

Geomagnetic field variability

U. Christensen in collaboration with V. Lesur, I. Wardinski (GeoForschungszentrum Potsdam, Germany).

Gravitation and Shapiro effect

K. Wilhelm in collaboration with B. N. Dwivedi (Banaras Hindu University, Varanasi, India).

Gravitational redshift

K. Wilhelm in collaboration with B. N. Dwivedi (Banaras Hindu University, Varanasi, India).

GREGOR

A. Lagg, S. K. Solanki, A. Feller, A. Gandorfer, J. Hirzberger, and M. Van Noort in collaboration with Kiepenheuer Institut für Sonnenphysik (Freiburg, Germany); Astrophysikalisches Institut Potsdam (Germany); Instituto de Astrofísica de Canarias (La Laguna, Tenerife, Spain)

HELAS (European Helio- and Asteroseismology Network)

L. Gizon and H. Schunker in collaboration with O. von der Lühe and Markus Roth (Kiepenheuer-Institut für Sonnenphysik, Freiburg, Germany); P. Pallé (IAC, La Laguna, Tenerife, Spain); M. Thompson (University of Sheffield, UK); J. Christensen-Dalsgaard (University of Aarhus, Denmark); M. Monteiro (Center for Astrophysics, University Porto, Portugal); M. P. Di Mauro (INAF, Rome, Italy); C. Aerts (Katholieke Universiteit Leuven, Belgium); J. Daszyńska-Daszkiewicz (Uniwersytet Wrocławski, Poland); T. Corbard (CNRS, Nice, France).

Helioseismology Inversions

L. Gizon and A. C. Birch in collaboration with J. Jackiewicz (New Mexico State University, USA); M. Svanda (Ondrejov Observatory, Czech Republic); T. Hohage (NAM, University of Göttingen, Germany).

Helioseismology of granulation

L. Gizon in collaboration with A. C. Birch, D. C. Braun (CoRA, Boulder, USA); T. L. Duvall Jr. (NASA GSFC, USA).

Helioseismology of the Solar Dynamo

A. C. Birch in collaboration with M. Woodard, A. Crouch (NWRA, Boulder, USA); J. Schou (Stanford University, Stanford, USA).

Helmholtz-Allianz "Planetary Evolution and Life"

J. Wicht and P. Hartogh and in collaboration with D. Breuer, H. Rauer (DLR- Institut für Planetenforschung, Berlin, Germany); U. Hansen (Universität Münster, Germany).

HIFI-Instrument Control Centre (ICC): German contribution

P. Hartogh, M. Rengel, and C. Jarchow in collaboration with F. Helmich, R. Assendorp, I. Avruch, D. Kester, M. M. Mueller, P. Roelfsema, R. Shipman (SRON, Groningen, The Netherlands); A. Boogert, S. Lord, P. Morris, Q. Xie, C. Borys (IPAC-CalTech, Pasadena, CA, USA); E. Caux, O. Coeur-Joly, D. Rabois (CESR, Toulouse, France); A. Lorenzani (INAF - Osservatorio Astrofisico di Arcetri, Florence, Italy); T. Marston, D. Teyssier (ESAC, Villafranca, Spain); S. Beaulieu, C. McCoey, K. Edwards (University of Waterloo, Canada); M. Melchior (Institut für 4D-Technologien, Zurich, Switzerland); V. Ossenkopf (Universität Köln, Germany); R. Moreno (LESIA, Observatoire de Paris, France); F. Herpin (Laboratoire d'Astrophysique de Bordeaux, Bordeaux, France); M. Olberg (Chalmers University of Technology, Gothenburg, Sweden).

Hinode data analysis

A. Lagg, S. K. Solanki, D. Bühler, S. Tiwari, Jayant Joshi, Fatima Rubio and Sanja Danilovic in collaboration with National Astronomical Observatory of Japan (NAOJ).

HsSO (Herschel Solar System Observations)

M. Rengel, P. Hartogh, C. Jarchow, and A. Medvedev in collaboration with M. Banaszekiewicz, M. I. Blecka, S. Szutowicz (Space Research Centre, Polish Academy of Science, Warsaw, Poland); F. P. Bensch (DLR, Bonn, Germany); E. A. Bergin (University of Michigan, Ann Arbor, USA); F. Billebaud (LAB, Observatoire de Bordeaux, France); E. Lellouch, R. Moreno, N. Biver, D. Bockelee-Morvan, R. Courtin, J. Crovisier, T. Encrenaz (LESIA, Observatoire de Paris, France); G. A. Blake (California Institute of Technology, Pasadena, USA); J. Blommaert, L. Decin, B. Vandenbussche, C. Waelkens (Instituut voor Sterrenkunde, Katholieke Universiteit Leuven, Belgium) and others.

Impact model of gravitation

K. Wilhelm in collaboration B. N. Dwivedi (Banaras Hindu University, Varanasi, India).

Impact simulations of asteroids and comets with Hydrocodes

N. Oklay, J.-B. Vincent and H. Sierks in collaboration K. Wünnemann, D. Elbeshausen (Natural History Museum, Leibniz Institute for Research on Evolution and Biodiversity, Berlin, Germany).

Influence of the solar spectral irradiance on stratospheric heating rates

N. A. Krivova and S. K. Solanki in collaboration with U. Langematz, S. Oberländer, M. Kunze, A. Kubin (Institut für Meteorologie, FU Berlin, Germany); K. Matthes (Helmholtz-Zentrum Potsdam, Germany); J. Harder (LASP, University of Colorado, Boulder, USA).

Influence of solar spectral irradiance on stratospheric ozone concentrations

N. A. Krivova and S. K. Solanki in collaboration with W. T. Ball, J. D. Haigh, Y. C. Unruh (Imperial College, London, UK).

InSight – SEIS

M. Bierwirth, U. Christensen and W. Goetz in collaboration with B. Banerdt, K. Hurst (JPL, Pasadena, USA); P. Lognonné, S. de Raucourt (IPGP, Paris, France); P. Zweifel, D. Mance (ETH, Zürich, Switzerland); T. Pike (Imperial College, London, UK); D. Mimoun (ISAE, Toulouse, France); S. Calcutt (Oxford University, UK); P. Laudet, L. Kerjean (CNES, Toulouse, France).

Intercomparison of MHD simulations

M. Schuessler in collaboration with M. Asplund, R. Collet (Max-Planck-Institut für Astrophysik, Garching, Germany); H. Ludwig (Universität Heidelberg, Germany); M. Steffen (AIP, Potsdam, Germany).

Interplanetary Micrometeoroid Environment for Exploration (IMEX)

P. Strub in collaboration with R. Srama, E. Grün, V. Sterken, R. Soja (Institut für Raumfahrtsysteme (IRS), Universität Stuttgart, Germany).

Inter-scale coupling in magnetic reconnection

J. Büchner in collaboration with M. Barta, M. Karlicky (Astronomical Institute of the Czech Academy of Science, Ondrejov, Czech Republic).

Investigation of thin current sheets in space and solar plasmas

J. Büchner in collaboration with L. Hau, K.W. Lee (National Central University of Taiwan).

ISSI Team " Heavy Ions: Their Dynamical Impact on the Magnetosphere"

E. Kronberg in collaboration with M. Ashour-Abdalla, Y. Shprits (University of California, Los Angeles, USA); I. Dandouras (Institut de Recherche en Astrophysique et Planétologie, France); D. Delcourt (Laboratoire de Physique des Plasmas, France); E. Grigorenko, D. Shklyar (Space Research Institute, Russia); L. Kistler (University of New Hampshire, USA); R. Maggiolo (Institut d'Aéronomie Spatiale de Belgique, Belgium); D. Welling (University of Michigan, USA).

ISSI Team "Kinetic Plasma Processes at Airless Bodies"

E. Roussos in collaboration with M. Fillingim, J. Halekas (University of California, Berkeley, USA); D. Brain (University of Colorado, Boulder, USA); W. Farrell (NASA Goddard Space Flight Center, USA); Y. Futaana, M. Holmström (Swedish Institute of Space Physics (IRF), Sweden); G. Jones (MSSL/UCL, UK); E. Kallio (Finnish Meteorological Institute, Finland); T. Nakagawa (Tohoku Technical University, Japan); Y. Saito (JAXA/ISAS, Japan).

ISSI Team „Nanodust“ (Nano Dust in the Solar System)

H. Krüger in collaboration with I. Mann (Kindai University, Higashi Osaka, Japan); A. Czechowski (Polish Space Research Center, Warsaw, Poland); D. Gerlich (Technische Universität, Chemnitz, Germany); V. Kharchenko (Harvard-Smithsonian Center for Astrophysics, Cambridge, USA); Y. Kimura (Tohoku University, Sendai, Japan); A. Li (University of Missouri, Columbia, USA); N. Meyer-Vernet (Observatoire de Paris, Meudon, France).

ISSI Team "Understanding Solar Jets and their Role in Atmospheric Structure and Dynamics"

W. Curdt in collaboration with N. Raoufi (John Hopkins University, Baltimore, USA); E. Pariat (Observatoire de Paris, Paris, France); S. Patsourakos (University of Ioannina, Greece); S. Antiochos (NASA-GSFC, Washington, USA); V. Archontis (University of St. Andrews, UK); E. DeLuca (CFA, Cambridge, USA); H. Mason (University of Cambridge, Cambridge, UK); F. Moreno-Inertis (IAC, La Laguna, Spain); M. Shimojo (NAOJ Nobeyama, Nagano, Japan); T. Torok (PSI, San Diego, USA); A. Sterling (NASA-MSFC, Huntsville, USA).

JUICE (EJSM)-GALA (Ganymede Laser Altimeter)

R. Kallenbach and U. Christensen in collaboration with B. Metz (Cassidian Optronics GmbH, Oberkochen, Germany); T. Zeh (Kayser-Threde GmbH, München, Germany); H. Hussmann (DLR - Institut für Planeten-forschung, Berlin, Germany); N. Thomas (Universität Bern, Switzerland); L. Lara (Instituto de Astrofísica de Andalucía, Granada, Spain).

JUICE (EJSM) - High Resolution Camera (HRC)

H. Sierks and P. Gutierrez in collaboration with P. Palumbo (INAF - Osservatorio Astronomico di Capodimonte Napoli, Italy); R. Jaumann (DLR Institut für Planetenforschung, Berlin, Germany) and others.

JUICE (EJSM) -SWI

P. Hartogh, U. Christensen, C. Jarchow, M. Rengel, L. Rezac and A. Medvedev in collaboration with E. Lellouch, P. Drossart, R. Moreno, T. Fouchet, J.-M. Krieg, G. Beaudin, A. Maestrini (Observatoire de Paris, France); S. Gulikis, M. Allen, M. Janssen, and I. Mehdi (Caltech-JPL, Pasadena, USA); S. Bolton (Southwest Research Institute, San Antonio, USA); G. Chin (Goddard Space Flight Center, Greenbelt, USA); S. Barabash (IRF, Kiruna, Sweden) and others.

JUICE (EJSM) –Pre-evaluation for a plasma instrument

N. Krupp, M. Fraenz, E. Roussos and R. Kallenbach in collaboration with D. Delcourt (LPP, Paris, France); S. Barabash (Swedish Institute of Space Physics, Kiruna, Sweden)

KASC (Kepler Asteroseismic Science Consortium)

L. Gizon in collaboration with T. Stahn (University of Göttingen, Germany), J. Christensen-Dalsgaard (PI), H. Kjeldsen (Aarhus University, Denmark); W. J. Chaplin (University of Birmingham, UK); and many others.

Kinetic instability of a chain of magnetic islands

J. Büchner in collaboration with Ji Li (University of Science and Technology of China (USTC), Hefei, China).

Lemur (Large European Module for solar Ultraviolet Research; European contribution to Solar-C)

L. Teriaca, W. Curdt, D. Innes and S.K. Solanki collaboration with S. Tsuneta (NAOJ, Tokyo, Japan); S. Imada, T. Shimizu (ISAS/JAXA, Tokyo, Japan); C. M. Brown, G. A. Doschek, C. Korendyke, J. T. Mariska, H. P. W (NRL, Washington DC, USA); J. M. Davila, J. Klimchuk (NASA GSFC, Greenbelt, USA); J. L. Culhane, L. Green, L. K. Harra, B. Winter (MSSL, Dorking, UK); F. Auchère, E. Buchlin, J.-C. Vial (IAS, Orsay, France); V. Martínez-Pillet, H. Socas-Navarro, J. Trujillo-Bueno (IAC, La Laguna, Spain); V. Andretta, G. Cauzzi, S. Fineschi, D. Spadaro (INAF, Italy); S. Parenti (ROB, Brussels, Belgium); B. Kliem (IAP, University of Potsdam, Germany); G. Del Zanna (University of Cambridge, UK); S. Patsourakos (University of Ioannina, Greece); A. Fludra (RAL, Didcot, UK); M. Siemer (DLR, Bremen, Germany); L. Poletto (CNR, Padua, Italy).

MAOAM (The Martian Atmosphere: Observing And Modelling)

P. Hartogh, C. Jarchow and A. Medvedev in collaboration with U. Berger, G. Sonnemann, M. Grygalashvily (IAP Kühlungsborn, Germany); T. Kuroda (ISAS, Sagami-hara, Japan); H. Elbern (Institut für Geophysik und Meteorologie, Universität Köln, Germany); M. Allen (JPL, Pasadena, USA); A. Feofilov, A. Kutepov, Gordon Chin (NASA GSFC, Greenbelt, USA).

MarcoPolo-R Camera system

H. Boehnhardt in collaboration with M.A. Barucci (Observatoire de Paris, Meudon, France); P. Michel (Université de Nice, France); J.R. Brucato (INAF Osservatorio Astrofisico di Arcetri, Florence, Italy); E. Dotto (INAF Osservatorio Astronomico di Roma, Rome, Italy); I.A. Franchi, S. Green (Open University, Milton Keynes, UK); L.M. Lara (Instituto Astrofisica de Andalucia, Grenada, Spain); B. Marty (CRPG, Nancy, France).

MarcoPolo-R Laser altimeter

R. Kallenbach in collaboration with J. Oberst (TU Berlin, Germany); F. Lüdicke, H. Hussmann, K. Wickhusen, K. Lingenauber, H. Michaelis, S. Mottola (DLR - Institut für Planetenforschung, Berlin, Germany); K. Seiferlin, N. Thomas (Universität Bern, Switzerland); M. R. Santovito (CO.RI.S.T.A., Naples, Italy); V. Lupovka (Moscow State University of Geodesy and Cartography, Russia).

Mars aeronomy

M. Fraenz in collaboration with H. Opgenoorth, D. Andrews (IRF, Uppsala, Sweden).

Mars and Venus sheath waves

M. Fraenz in collaboration with N. Borisov (IZMIRAN, Troisk, Russia); E. Echer (INPE, São José dos Campos, Brasil).

Mars Express – ASPERA-3 (Analyzer of Space Plasmas and Energetic Atoms)

M. Fraenz, J. Woch, N. Krupp and Y. Wei in collaboration with R. Lundin (PI), S. Barabash (IRF, Kiruna, Sweden); D. Winningham, R. Frahm (SWRI, San Antonio, USA); P. Wurz (Universität Bern, Switzerland); A. Coates (MSSL, London, UK); M. Grande (RAL, Didcot, UK); J. A. Sauvaud, A. Fedorov (CESR, Toulouse, France); E. Kallio (FMI, Helsinki, Finland); S. Orsini (IFSI, Roma, Italy); C. C. Curtis (University of Arizona, Tuscon, USA).

Mars Express – HRSC

W.J. Markiewicz, N. Hoekzema and O. Stenzel in collaboration with K. Gwinner, T. Roatch, H. Hofmann (DLR, Berlin, Germany); G. Neukum, S. Walter, S. van Gasselt (FU, Berlin, Germany); L. Petrova (IKI, Moscow, Russia); Dr. Dennis Reiss (University of Muenster, Germany).

MARSIS

M. Fraenz in collaboration with Department of Physics and Astronomy (University of Iowa, Iowa City, USA); Jet Propulsion Laboratory, California Institute of Technology (Pasadena, USA); INAF Istituto di Fisica dello Spazio Interplanetario (Rome, Italy); Infocom Department (“La Sapienza” University of Rome, Italy); School of Earth and Space Sciences (Peking University, Beijing, China).

Max-Planck-Princeton Research Center for Plasma Physics

S.K. Solanki, J. Büchner, D. Innes, H. Peter, N. Jain and S. Bingert in collaboration with O. Grulke, S. Günter, V. Igochine, F. Jenko, K. Lackner, P. Lauber, W.-C. Müller (Max Planck Institute for Plasma Physics (IPP), Garching, Germany); H.-T. Janka, O. Just, E. Mueller (Max Planck Institute for Astrophysics (MPA), Garching, Germany); Guo Yong Fu, G. Hammett, H. Ji, S. Prager, M. Yamada (Princeton Plasma Physics Laboratory (PPPL), Princeton, USA); A. Burrows, J. Goodman, M. Kunz, E. Ostriker, A. Spitkovsky, J. Stone (Department of Astrophysical Sciences, Princeton University, Princeton, USA).

MELOS-FIRE - Mars Exploration with Lander and Orbiter Synergy - Far Infrared Experiment

P. Hartogh, C. Jarchow, and A. Medvedev in collaboration with Y. Kasai, H. Sagawa, S. Ochiachi, P. Baron (National Institute of Information and Communications Technology, Tokyo, Japan); T. Kuroda (Tohoku University, Sendai, Japan); D. Murtagh, J. Urban (Chalmers University of Technology, Gothenburg, Sweden); T. Manabe (Osaka Prefecture University, Japan); K. Kikuchi, T. Nishibori (JAXA, Tsukuba, Japan); J. Mendrok (Luleå University of Technology, Sweden).

Mercury dynamo

D. Schmitt and J. Wicht in collaboration with D. Heyner, K.-H. Glassmeier (IGEP, TU Braunschweig, Germany).

Microlensing exoplanet observations

C. Snodgrass in collaboration with K. Horne, M. Dominik, M. Hundertmark, Ch. Liebig, P. Browne, D. Bajek (University of St Andrews, St Andrews, UK); R. Street (Las Cumbres Observatory, Santa Barbara, USA); Y. Tsapras (Queen Mary University, London, UK); K. Alsubai, S. Ipatov (Al Subai Institute for Scientific Studies, Doha, Qatar); D. Bramich, N. Kains (ESO, Garching, Germany); U. Jørgensen, K. Harpsøe, J. Skottfelt (Niels Bohr Institute, Copenhagen, Denmark); R. Hessman (Universität Göttingen, Germany).

Microstructure, chemistry, and mineralogy of Martian soils. Search for alteration phases.

W. Goetz in collaboration with J. Grotzinger (Caltech, Pasadena, USA); K. S. Edgett (Malin Space Science Systems, San Diego, USA).

Micro-turbulent transport

J. Büchner in collaboration with F. Jenko (IPP, Garching, Germany); Moritz Püschel (University of Madison, USA).

Multiscale reconnection at the Sun

J. Büchner in collaboration with Jun Lin (Yunnan National Observatory, CAS, Kunming, China).

NASA SDO Science Center: Developing Physics-Based Procedures for Probing Sunspots and Magnetic Regions

A. C. Birch, R. Burston, R. Cameron, L. Gizon, S. H. Hanasoge and H. Schunker in collaboration with D. Braun, A. Crouch (NWRA, Boulder, USA); J. Toomre, D. Haber, B. Hindman (JILA CU, Boulder, USA); T. Duvall (NASA GSFC, Greenbelt, USA); M. Rempel, Y. Fan, R. Centeno (HAO, Boulder, USA); P. Scherrer (Stanford University, Stanford, USA); J. Jackiewicz (NMSU, Las Cruces, USA).

NERC consortium: "SOLCLI: Solar Influence on Climate"

N. A. Krivova and S. K. Solanki in collaboration with Astrophysics Group (Imperial College London, UK).

New Generation Active Region Model

J. Thalmann and T. Tadesse in collaboration with P. MacNeice, D. Spicer (NASA GSFC, Greenbelt, USA); P. Schuck (NRL, Washington, USA); K. Olson (Drexel University, Philadelphia, USA).

Nonlinear force-free coronal magnetic fields (NLFFF-consortium)

J. Thalmann, T. Wiegmann, B. Inhester and T. Tadesse in collaboration with C. J. Schrijver (LMSAL, Palo Alto, USA).

NCROSS (NEA Close Rendezvous Mission, OpNav and Imaging Science)

H. Sierks in collaboration with A. Colaprete, Julie Bellrose (NASA Ames Research Center, Moffett Field, USA); G. Kovacs (University of Budapest, Hungary).

Observations of comets

C. Snodgrass, C. Tubiana, H. Boehnhardt, and J.-B. Vincent in collaboration with K. Meech, H. Hsieh, J. Pittichová (Institute for Astronomy, Hawaii, USA); O. Hainaut (ESO, Garching, Germany); A. Fitzsimmons (Queen's University, Belfast, UK); S. Lowry, S. Duddy (University of Kent, Canterbury, UK); Y. Fernández, H. Campins (University of Central Florida, Orlando, USA); P. Weissman, J. Bauer (JPL, Pasadena, USA); M. A'Hearn, M. Kelley (University of Maryland, College Park, USA); J. Licandro (Instituto de Astrofísica de Canarias, Tenerife, Spain); C. Lisse, H. Weaver (Johns Hopkins University, Laurel, USA); W. Reach (SOFIA, Moffett Field, USA); O. Groussin, P. Lamy (Laboratoire d'Astrophysique de Marseille, Marseille, France); I. Toth (Konkoly Observatory, Budapest, Hungary); E. Jehin, J. Manfroid, D. Hutsemékers (Université de Liège, Liège, Belgium); T. Lister (Las Cumbres Observatory, Santa Barbara, USA); E. Mazzotta Epifani (INAF, Napoli, Italy); G. Paolo Tozzi (INAF Arcetri Observatory, Florence, Italy).

Observations of KBOs

C. Snodgrass in collaboration with B. Carry (ESAC, Madrid, Spain); O. Hainaut (ESO, Garching, Germany); C. Dumas, A. Alverez-Candal (ESO, Santiago de Chile, Chile); P. Lacerda (Queen's University, Belfast, UK).

Particle acceleration at the Sun

J. Büchner in collaboration with W. Gan, S. Liu (Purple Mountain National Observatory, CAS, Nanjing, China).

Physical and composition properties of shortperiodic and Oort Cloud comets

H. Boehnhardt and C. Tubiana in collaboration with S. Bagnulo (ESO, Santiago de Chile, Chile and Armagh Observatory, UK); L. Barrera (UMCE, Santiago de Chile); D. Harker (University of San Diego, USA); M. Kelley (Joint Astronomy Center, Hilo, USA); S. Kolokolova (University of Maryland, College Park, USA); L. Lara (IAA, Granada, Spain); M. Mumma, M. DiSanti, B. Bonev (NASA GSFC, Greenbelt, USA); D. Prialnik, E. Beer-Harari (Tel Aviv University, Israel); G. P. Tozzi (INAF Arcetri Observatory, Florence, Italy); D. Wooden (PI) (NASA Ames Res. Center, Moffett Fields, USA); C. Woodward (University of Minnesota, Minneapolis, USA).

Plasma dynamics in stellar atmospheres

J. Büchner in collaboration with U. Motschmann (Technische Universität Braunschweig, Germany).

PLATO (PLANetary Transits and Oscillations of stars)

L. Gizon in collaboration with European consortium led by C. Catala (Observatoire de Paris, Paris, France).

PLATO (PLANetary Transits and Oscillations of stars) ground data center assessment study

L. Gizon (coordinator), R. Burston, I. Pardowitz, and H. Schunker in collaboration with H. Moradi (Monash University, Australia); T. Stahn (University of Göttingen, Germany); T. Appourchaux (IAS,

Orsay, France); C. Catala, R. Samadi (Observatoire de Paris, Meudon, France); M. Deleuil (LAM, Marseille, France); N. Walton (Institute of Astronomy, University of Cambridge, UK); P. Giommi (ASDC-ASI, Italy); P. Bodin (CNES, Toulouse, France). Gizon (coordinator), R. Burston, I. Pardowitz, H. Moradi, H. Schunker, and T. Stahn in collaboration with T. Appourchaux (IAS, Orsay, France); C. Catala, R. Samadi (Observatoire de Paris-Meudon, Paris, France); M. Deleuil (LAM, Marseille, France); N. Walton (Institute of Astronomy, University of Cambridge, UK); P. Giommi (ASDC-ASI, Italy); P. Bodin (CNES, Toulouse, France).

POLARIS (POLar Investigation of the Sun)

L. Gizon in collaboration with T. Appourchaux (IAS, Orsay, France), and others.

PROBA II – LYRA (Large Yield Radiometer)

U. Schühle in collaboration with M. Dominique, (PI), A. BenMoussa, D. Berghmans, V. Delouille, B. Nicula, B. Giordanengo, I. Dammasch, L. Wauters, R. Van der Linden, A. Zhukov, F. Clette (Royal Observatory of Belgium, Brussels, Belgium); W. Schmutz, M. Habereiter, M. Gyo, E. Rozanov, T. Egorova, A. Shapiro, G. Cessateur (Physikalisch-Meteorologisches Observatorium Davos, Davos, Switzerland); Y. Stockman, J.-M. Defise, J.-P. Halain, P. Rochus (Centre Spatial de Liège, Liège, Belgium); D. Gillotay, D. Fussen, F. Vanhellemont (Belgian Institute for Space Aeronomy, Brussels, Belgium); V. Slemzin, A. Mitrofanov (Lebedev Physical Institute, Moscow, Russia); D. McMullin (Naval Research Laboratory, Washington DC, USA); M. Kretzschmar, Th Dudok de Wit (CNRS, Orleans, France); S. Koizumi (Advanced Materials Laboratory, National Institute for Materials Science, Tsukuba, Japan); H. Amano (Meijo University, Nagoya, Japan); A. Soltani (Institut d'Electronique, de Microélectronique et de Nanotechnologie, Villeneuve d'Ascq, France).

PROBA II – SWAP (Sun Watcher using APS Detectors)

U. Schühle in collaboration with D. Berghmans (PI), D. Seaton, B. Nicula, R. Van der Linden, A. Zhukov, F. Clette (Royal Observatory of Belgium, Brussels, Belgium); J.-P. Halain, J.-M. Defise, J. H. Lecat, P. Rochus, E. Mazy, T. Thibert (Centre Spatial de Liège, Liège, Belgium); J. Zender, A. De Groof, (ESA); S. Poedts, M. Sarp Yalim (Katholieke Universiteit Leuven, Belgium); P. Nicolosi, M. G. Pelizzo (University of Padova, Italy); V. Slemzin (Lebedev Physical Institute, Moscow, Russia); P. T. Gallagher, S. Bloomfield (Trinity College, Dublin, Ireland).

PROBA-3 – ASPIIC

H. Sierks and P. Gutierrez in collaboration with Ph. Lamy (Laboratoire d'Astrophysique de Marseille, France); K. Tsinganos (University of Athens, Greece)

PROTEUS Framing Camera

W. Curdt and S.K. Solanki in collaboration with K. Meech (University of Hawaii, USA); G. Kovacs (University of Budapest, Hungary).

RAISE – Rapid Imaging Spectrograph Experiment

U. Schühle and S. Werner in collaboration with D. Hassler (PI), D. Slater, C. DeForest, G. Laurent (Southwest Research Institute, San Antonio, USA); T. Ayres (University of Colorado, Boulder, USA); R. Thomas (NASA GSFC, Greenbelt, USA); H. Michaelis (Institut für Planetenforschung, DLR, Berlin, Germany).

Reconstruction of the solar cyclic variability over the Holocene

N.A. Krivova and S. K. Solanki in collaboration with L.E.A. Vieira (Laboratoire de Physique et Chimie de l'Environnement et de l'Espace, Orleans, France).

Rosetta – CONSERT (Radio Tomography Project)

H. Boehnhardt and Erling Nielsen in collaboration with Institut de Planétologie et d'Astrophysique de Grenoble (France).

Rosetta – COSAC (PHILAE)

F. Goesmann in collaboration with F. Raulin (LISA, Creteil Cedex, France); U. J. Meierhenrich (Université Nice-Sophia Antipolis, Nice, France); C. Szopa (LATMOS, Paris, France).

Rosetta – COSIMA

M. Hilchenbach (PI), H. Krüger and H. Boehnhardt in collaboration with K. Altwegg (Physikalisches Institut, Universität Bern, Switzerland); B. C. Clark (Lockheed Martin Astronautics, Denver, USA); H. Cottin, F. Raulin (LISA, Creteil Cedex, France); G. Haerendel (MPI für extraterrestrische Physik, Garching, Germany); C. Engrand (Centre de Spectrométrie Nucléaire et de Spectrométrie de Masse, Orsay, France); R. Schulz (ESTEC, Noordwijk, The Netherlands); A. Glasmachers (Universität Wuppertal, Germany); E. Grün (MPI für Kernphysik, Heidelberg, Germany); H. Henkel, H. von Hoerner, A. Koch (von Hoerner und Sulger, Schwetzingen, Germany); K. Hornung (Universität der Bundeswehr, Neubiberg, Germany); E. K. Jessberger (Institut für Planetologie, Universität Münster, Germany); Y. Langein (Institut d'Astrophysique Spatiale, Orsay, France); F. Rüdener (Institut für Physik, Seibersdorf, Austria); J. Rynö, J. Silén (Finnish Meteorological Institute, Helsinki, Finland); W. Steiger (ARC Seibersdorf Research GmbH, Seibersdorf, Austria); T. Stephan (Univ. of Chicago, USA); L. Thirkell, R. Thomas, C. Briois (Laboratoire de Phys. & Chim. de L'Environnement et de l'Espace (LPC2E), Orléans, France); K. Torkar (Institut für Weltraumforschung, Graz, Austria); M. Tieloff (Mineralogisches Institut, Universität Heidelberg, Germany); K. Varmuza (Institut für Verfahrenstechnik, Umwelttechnik und Techn. Biowissenschaften, TU Wien, Austria); K. P. Wanczek (Institut für Anorganische und Physikalische Chemie, Universität Bremen, Germany); E. Zinner (Laboratory for Space Sciences, Washington University, St. Louis, MO, USA.)

Rosetta-DIM (Dust Impact Monitor)

H. Krüger (PI) in collaboration with Klaus J. Seidensticker (DLR, Institut für Planetenforschung, Berlin, Germany); Hans-Herbert Fischer (DLR, Köln, Germany); A. Hirn, I. Apathy (MTA Centre for Energy Research, Budapest, Hungary); M. Sperl (DLR, Institut für Materialphysik im Weltraum, Köln, Germany); W. Arnold (Universität des Saarlands, Saarbrücken, and Universität Göttingen, Germany); Alberto Flandes (Instituto de Geofísica, UNAM, Coyoacán, Mexico).

Rosetta – MIRO (Microwave Instrument for the Rosetta-Orbiter)

P. Hartogh and C. Jarchow in collaboration with S. Gulkis, M. Allen, M. Frerking, M. Hofstadter, M. Janssen, T. Spilker (JPL, Pasadena, USA); D. Muhleman (Caltech, Pasadena, USA); G. Beaudin, D. Bockelee-Morvan, J. Crovisier, P. Encrenaz, T. Encrenaz, E. Lellouch (Observatoire de Paris, Meudon, France); D. Despois (Observatoire de Bordeaux, France); H. Rauer (DLR, Berlin, Germany); P. Schloerb (University of Massachusetts, Amherst, USA).

Rosetta – OSIRIS

H. Sierks, H. Boehnhardt, J. Agarwal, I. Büttner, P. Gutierrez, I. Hall, N. Oklay, C. Snodgrass, C. Tubiana, and J.-B. Vincent in collaboration with C. Barbieri, F. Angrilli, I. Bertini, V. da Deppo, S. Debei, M. de Cecco, F. Ferri, M. Lazzarin, S. Magrin, F. Marzani and G. Naletto (CISAS, University of Padova, Italy); P. Lamy, L. Jorda, O. Groussin (Laboratoire d'Astrophysique de Marseille, France); H. Rickmann, B. Davidsson (Uppsala Universitet, Sweden); R. Rodrigo, P. Gutierrez, L. M. Lara, J. de Leon, J. J. Lopez Moreno (Instituto de Astrofísica de Andalucía, Granada, Spain); D. Koschny, K.-P. Wenzel (ESTEC, Noordwijk, The Netherlands); M. F. A'Hearn (University of Maryland, College Park, MD, USA); L. Sabau (Instituto Nacional de Técnica Aeroespacial, Torrejon de Ardoz, Spain); M. A. Barucci, F. Fornasier, C. Leyrat (Observatoire de Paris, Meudon, France); J.-L. Bertaux (Service d'Aéronomie du CNRS, Verrière-le-Buisson, France); M. Fulle (Osservatorio Astronomica de Trieste, Italy); H. Michalik (Institut für Datentechnik und Kommunikationsnetze, TU Braunschweig, Germany); W.-H. Ip (Institute of Space Science, National Central University, Chung Li, Taiwan); E. Kührt, J. Knollenberg (DLR-Institut für Planetenforschung, Berlin, Germany); A. Sanz (Universidad Politécnica de Madrid, Spain); N. Thomas (Physikalisches Institut, Universität Bern, Switzerland); G. Cremonese, R. Ragazzoni (INAF, Osservatorio Astronomico, Padova, Italy); M. Küppers, R. Moissl (ESAC, Madrid, Spain).

Rosetta – PHILAE (Rosetta Lander)

H. Boehnhardt and R. Roll in collaboration with S. Ulamec (DLR, Köln, Germany); J. P. Bibring (IAS, Paris, France); P. Gaudon (CNES, Toulouse, France).

Rosetta – PHILAE – ROMAP

M. Hilchenbach in collaboration with U. Auster (TU Braunschweig, Germany).

Rosetta – RTOF/ROSINA

U. Mall in collaboration with H. Balsiger (PI) (Universität Bern, Switzerland); BIRA (Brussels, Belgium); CESR (Toulouse, France); IPSL (Saint Maur, France); IDA (Braunschweig, Germany); University of Michigan (Ann Arbor, USA); Southwest Research Institute (San Antonio, USA); Universität Giessen (Germany).

SDO-based magnetic modeling of the solar corona

J. Thalmann and T. Wiegmann in collaboration with J. Todd Hoeksema, X. Sun (HEPL, Stanford University, USA).

Seismic Constraints on Solar Convection

L. Gizon and S.H. Hanasoge in collaboration with T. L. Duvall (NASA GSFC, Greenbelt, USA).

SELENE2-SEIS

M. Bierwirth in collaboration with N. Kobayashi, H. Shiraishi (JAXA Institute of Space and Astronautical Science, Tokyo, Japan); P. Lognonné, S. de Raucourt (Institute de Physique du Globe de Paris, Paris, France); P. Zweifel, D. Mance (ETH Zürich, Switzerland); D. Mimoun (Intitute Superieur de l'Aeronautique et de l'Espace, Toulouse, France)

Simulation of deep solar magneto-convection

M. Schuessler in collaboration M. Cheung (Lockheed Martin Solar and Astrophysical Lab, Palo Alto, USA); M. Rempel (High Altitude Observatory, Boulder, USA).

Simulation of plasma turbulence and magnetic reconnection

J. Büchner in collaboration with M. Ashour-Abdalla (University of California, Los Angeles, USA).

SISI (Seismic Imaging of the Solar Interior, ERC Starting Grant)

L. Gizon and R. Burston in collaboration with H. Moradi (Monash University, Australia); R. Bogart, P. H. Scherrer (Stanford University, USA).

SOFIA–GREAT (German Receiver for Astronomy at THz frequencies)

P. Hartogh and C. Jarchow in collaboration with R. Guesten, K. Menten, P. v. d. Wal (MPI für Radioastronomie, Bonn, Germany); R. Schieder, J. Stutzki (Universität Köln, Germany); H.W. Hübers (DLR-Berlin, Germany); H. P. Röser (Institut für Raumfahrtsysteme, Universität Stuttgart, Germany).

SOHO – CELIAS (Charge, Element and Isotope Analysis System onboard SOHO)

M. Hilchenbach and R. Kallenbach in collaboration with H. Balsiger, A. Bürgi, J. Fischer, P. Wurz, B. Klecker (Physikalisches Institut, Universität Bern, Switzerland); D. Hovestadt, B. Klecker, P. Laeverenz, M. Scholer (MPI für Extraterrestrische Physik, Garching, Germany); F. M. Ipavich, M. A. Coplan, G. Gloeckler, S. E. Lasley, J. A. Paquette (University of Maryland, College Park, USA); R. Wimmer-Schweingruber (Universität Kiel, Germany); J. Geiss (International Space Science Institute, Bern, Switzerland); F. Gliem, K.-U. Reiche (Institut für Datentechnik und Kommunikationsnetze, TU Braunschweig, Germany); D. L. Judge, H. S. Ogawa (Space Science Center, University of Southern California, Los Angeles, USA); G. G. Managadze, M. I. Verigin (Institute for Space Physics, Moscow, Russia); A. B. Galvin, H. Kucharek, M. A. Lee, Y. Litvinenko, E. Möbius (EOS, University of New Hampshire, Durham, USA); M. Neugebauer (Jet Propulsion Laboratory, Pasadena, USA); K. C. Hsieh (University of Arizona, Tucson, USA); D. McMullin (Naval Research Laboratory, Washington, USA); A. Czechowski (Space Research Center, Polish Academy of Sciences, Warsaw, Poland).

SOHO – SUMER (Solar and Heliospheric Observatory – Solar Ultraviolet Measurements of Emitted Radiation)

W. Curdt, S. K. Solanki, L. Teriaca, D. Innes, D. Schmit, and K. Wilhelm in collaboration with E. Landi, U. Feldman, G. A. Doschek, P. Lemaire, A. H. Gabriel, J.-C. Vial, K. Bocchialini (Institut

d'Astrophysique Spatiale, Orsay, France); J. Gurman (NASA GSFC, Greenbelt, USA); D. Hassler (SWRI, Boulder, USA); P. G. Judge (HAO, Boulder, USA); M. Carlsson (Institute of Theoretical Astrophysics, University of Oslo, Norway); B. N. Dwivedi (Institute of Technology, Banaras Hindu University, Varanasi, India); J. G. Doyle (Armagh Observatory, UK); P. Heinzel, S. Gunar (Astronomical Institute, Czech Academy of Science, Ondrejov, Czech Republic); E. Avrett, H. Tian (Harvard-Smithsonian Center for Astrophysics, Cambridge, USA); P. Schwartz (Tatranska Lomnica Observatory, Slovak Republic); M. Haberreiter (PMOD, Davos, Switzerland)

Solar-C: SUVIT Science Definition (Solar-C EUVS)

J. Hirzberger and S. K. Solanki in collaboration with K. Ichimoto (Kyoto University, Japan); S. Tsuneta (National Astronomical Observatory of Japan).

Solar coronal numerical simulation results comparison with flare magnetic field observations

J. Büchner in collaboration with H. Zhang, X. Li, S. Yang (Chinese Academy of Sciences, Beijing, China).

Solar-cycle variation of rotation and meridional circulation

L. Gizon in collaboration with M. Rempel (HAO, Boulder, USA); I. González Hernández (NSO, Tucson, USA).

Solar Dynamics Observatory

L. Gizon and S. K. Solanki in collaboration with P. H. Scherrer, J. Schou (Stanford University, USA); S. Tomczyk (High Altitude Observatory, Boulder, USA); A. M. Title (Lockheed-Martin Solar and Astrophysics Laboratory, Palo Alto, USA).

Solar Dynamics Observatory: German Data Center (DLR)

L. Gizon, R. Burston, I. Pardowitz, H. Schunker and S. K. Solanki in collaboration with M. Roth (Kiepenheuer-Institut für Sonnenphysik, Freiburg, Germany); G. Mann (Astrophysikalisches Institut Potsdam, Germany).

Solar dynamo

D. Schmitt, R. Cameron, and M. Schuessler in collaboration with J. Jiang (National Astronomical Observatories, Beijing, China); E. Isik (Istanbul Kultur University, Istanbul, Turkey).

Solar flares

T. Wiegmann in collaboration with J. Jing, H. Wang (New Jersey Institute of Technology, Newark, USA).

Solar infrared spectropolarimetry

A. Lagg and S. K. Solanki in collaboration with M. Collados (Instituto de Astrofísica de Canarias, Tenerife, Spain).

Solar irradiance during the satellite era

N. Krivova and S.K. Solanki in collaboration with Y.C. Unruh, W. Ball (Imperial College, London, UK); W. Schmutz (PMOD WRC, Davos, Switzerland).

SOLARNET

S. K. Solanki, L. Gizon, A. Lagg, A. Feller and M. van Noort in collaboration Manuel Collados Vera (coordinator) (Instituto de Astrofísica de Canarias (IAC), La Laguna, Spain) and 32 other institutions in Europe.

Solar observations with ALMA

S.K. Solanki and M. Lukicheva in collaboration S. White (Air Force Research Lab, Albuquerque, USA); M. Carlsson (Institute of Theoretical Astrophysics, Oslo, Norway).

Solar Orbiter: EUJ

U. Schühle, W. Curdt, D. Innes, L. Teriaca, S. K. Solanki, J. Büchner, R. Aznar Cuadrado, S. Meining, K. Heerlein, R. Enge, B. Chares, S. Werner in collaboration with P. Rochus(PI), J. P. Halain, E. Renotte, J.-M. Gillis, A. Debaize, L. Rossi, T. Thibert, M. Thomé (Centre Spatial de Liège, Liège,

Belgium);), D. Berghmans, A. BenMoussa, A. Zhukov, S. Parenti, B. Nicula, C. Verbeeck, (Royal Observatory of Belgium, Brussels, Belgium); L. Harra, J. Sun, D. Williams, L. van Driel-Gesztelyi, L. Green, S. Matthews, T. Kennedy, J. Tandy, P. Smith, A. Rouseau (Mullard Space Science Laboratories, London, UK); T. Appourchaux, F. Auchère, J.-C. Vial, E. Buchlin, G. Aulanier, C. Dumesnil, Y. Zhang (Institut d'Astrophysique Spatiale, Orsay, France), W. Schmutz, M. Habereiter, M. Gyo, D. Pfiffner (Physikalisch Meteorologisches Observatorium Davos, Switzerland); F. Delmotte, R. Mercier (Institut d'Optique, Orsay, France); K. Bonte (Katholieke Universiteit Leuven, Belgium); A. Gottwald, U. Kroth, C. Laubis, R.M. Klein, M. Richter, F. Scholze (Physikalisch-Technische Bundesanstalt, Berlin) .

Solar Orbiter: METIS (*Multi Element Telescope for Imaging and Spectroscopy instrument*)

L. Teriaca, U. Schühle, S. K. Solanki, R. Aznar Cuadrado, R. Enge, K. Heerlein, S. Werner in collaboration with E. Antonucci, G. Nicolini, S. Fineschi, L. Abbo, A. Bemporad, G. Capobianco, G. Crescenzo, G. Massone, D. Telloni (INAF Osservatorio Astronomico di Torino, Turin, Italy); G. Nalletto, P. Nicolosi, F. Frassetto, M.-G. Pelizzo, L. Poletto, G. Tondello, P. Zuppella, E. Verroi (U. Padua); M. Romoli, M. Focardi, M. Pancrazzi, F. Landini, M. Velli, G. Noci, M. Landini (U. Florence); D. Spadaro (Osservatorio Astrofisico di Catania); V. Andretta (Osservatorio Astronomico di Capodimonte); M. Uslenghi, S. Incorvaia, M. Fiorini (INAF-IASF Milano); V. Da Deppo (Consiglio Nazionale delle Ricerche, Italy); M. A. Malvezzi (U. Pavia); A. Ciaravella, F. Reale (U. Palermo); T. Strauss (INAF, Napoli); J. D. Moses (Naval Research Lab., USA); A. Berlicki, P. Heinzel (Astronomical Institute Acad. of Sciences, Czech Republic); F. Auchère, S. Parenti, J.-C. Vial (Institut d'Astrophysique Spatiale, France); P. Lamy (Laboratoire d'Astrophysique de Marseille, France); K. Tsinganos, (U. Athens, Greece).

Solar Orbiter: PHI

S. K. Solanki, J. Woch, A. Feller, A. Gandorfer, L. Gizon, J. Hirzberger, A. Lagg and T. Riethmüller in collaboration with V. Martinez Pillet (Instituto de Astrofísica de Canarias, La Laguna, Spain); T. Appourchaux (Institut d'Astrophysique Spatiale, Paris, France); M. Sigwarth (Kiepenheuer-Institut für Sonnenphysik, Freiburg, Germany); G. Scharmer (Institute for Solar Physics, Stockholm, Sweden); M. Carlsson (Institute of Theoretical Astrophysics, University of Oslo, Norway).

Solar Orbiter: SPICE

W. Curdt, U. Schühle, D. Innes, S. K. Solanki, L. Teriaca, S. Meining, R. Aznar Cuadrado, in collaboration with A. Fludra, D. Griffin, M. Caldwell, P. Eccleston, J. Cornaby, D. Drummond, W. Grainger, T. Drundy, C. Howe, K. Middleton, R. Parker, O. Poyntz Wright, B. Shaughnessy, I. Tosh, N. Waltham (Rutherford Appleton Lab., Didcot, UK); D. Hassler, C. DeForest, J. Andrews, E. Wilkinson, B. Walls, J. Hanley (Southwest Research Institute, Boulder, USA); J. Davila, S.K. Antiochos, T. Kucera, R. Thomas, J. Klimchuk (NASA GSFC, Washington DC, USA); T. Appourchaux, E. Buchlin, F. Auchère, J.-C. Vial, A. Philippon, A. Gabriel (Institut d'Astrophysique Spatiale, Orsay, France); M. Carlsson, V. Hansteen, S.V.H. Haugan (Institute of Theoretical Astrophysics, University of Oslo, Norway); M. Gyo, M. Habereiter, D. Pfiffner, W. Schmutz (Physikalisch Meteorologisches Observatorium Davos, Switzerland); T. Feigl (Fraunhofer Institut für Angewandte Optik und Feinmechanik, Jena); A. Gottwald, U. Kroth, C. Laubis, R.M. Klein, M. Richter, F. Scholze (Physikalisch-Technische Bundesanstalt, Berlin) .

Solar Stereoscopy

B. Inhester in collaboration with ISSI (Bern, Switzerland); T. Dudoc deWitt (CNRS, Orleans, France); A. Vouridas (NRL, Washington, USA); J.-F. Hochedez (ROB, Brussels, Belgium); A. Llebaria (LAS, Marseille, France); J. P. Wuelser (LMSAL, Palo Alto, USA); F. Auchere (IAS, Orsay, France).

SOLID

N.A. Krivova, M. Dasi, S.K. Solanki in collaboration with W. Schmutz, M. Habereiter, W. Finsterle, C. Wehrli, A. Shapiro, G. Cessateur (PMOD, Davos, Switzerland); A. Hauchecorne, G. Thuillier, J.-F. Hochedez (LATMOS, France); T. Dudok de Wit, M. Kretschmar, M. Schöll (LPC2E, France); V. Delouille, C. Verbeeck, L. Lefevre, C. Marqué (Royal Observatory of Belgium); R. Qahwaji, S Ipson,

O. Nibouche (University of Bredford, UK); M. Weber, W. Chehade (Universität Bremen, Germany); Y. Unruh (Imperial College, London, UK); I. Ermolli ((INAF Osservatorio di Roma, Italy); H. Mason, G. Del Zanna (University of Cambridge, UK); K. Tourpali, S. Misios (Aristotele University Thessaloniki).

Solis

J. Thalmann and T. Wiegelmann in collaboration with A. Pietarila (NSO, Tucson, USA).

Spectroscopy of asteroids

C. Snodgrass, C. Tubiana, H. Boehnhardt and J.-B. Vincent in collaboration with S. Protopapa (University of Maryland, College Park, USA); H. Hsieh (Institute for Astronomy, Hawaii, USA); P. Vernazza (ESO, Garching, Germany); P. Vernazza, R. Michelsen, H. Haack (University of Copenhagen, Denmark); A. Fitzsimmons (Queen's University, Belfast, UK); I. Williams (Queen Mary University, London, UK).

STEREO – IMPACT/SIT (Suprathermal Ion Telescope)

R. Bučik and U. Mall in collaboration with J. Luhmann (University of California, Berkeley, USA); V. Bothmer (Universität Göttingen, Germany) and members of the following institutes: NASA GSFC (Greenbelt, USA); NASA JPL (Pasadena, USA); California Institute of Technology (Pasadena, USA); Los Alamos National Lab (Los Alamos, USA); DESPA, Observatoire de Paris (Meudon, France); University of Michigan (Ann Arbor, USA); University of Colorado (Boulder, USA); Universität Kiel (Germany); KFKI Research Institute for Particle and Nuclear Physics (Budapest, Hungary); Science Applications International Corporation (San Diego, USA); Centre d'Etude Spatiale des Rayonnements/CRNS (Toulouse, France); ESTEC (Noordwijk, The Netherlands); University of Maryland (College Park, USA); Space Environment Centre, NOAA (Boulder, USA).

STEREO – Space weather monitor for cosmic rays

R. Bucik, U. Mall, A. Korth and B. Inhester in collaboration with K. Kudela, I. Parnahaj (Institute of Experimental Physics, Slovak Academy of Sciences, Kosice, Slovakia).

Structure of the solar chromosphere from mm wave data

S. K. Solanki and M. Loukitcheva in collaboration with S. White (University of Maryland, Greenbelt, USA).

Submm ground-based observations of the Venusian atmosphere

M. Rengel and P. Hartogh in collaboration with H. Sagawa (National Institute of Information and Communications Technology, Tokyo, Japan); R. Güsten (MPI for Radioastronomy, Bonn, Germany).

Submillimeter-Heterodyne Characterization of comets with ground-based telescopes

P. Hartogh and M. Rengel in collaboration with G. Villanueva, L. Paganini (NASA GSFC, Greenbelt, USA); N. Biver, D. Bockelee-Morvan, J. Crovisier (LESIA, Observatoire de Paris, Meudon, France); M. Drahus (University of California, Los Angeles, USA).

SUNRISE

S. K. Solanki, P. Barthol, A. Feller, A. Gandorfer, J. Hirzberger, A. Lagg, T. Riethmueller, T. Wiegelmann and F. Rubio da Costa in collaboration with V. Martínez-Pillet (Instituto de Astrofísica de Canarias, Tenerife, Spain), W. Schmidt (Kiepenheuer-Institut für Sonnenphysik, Freiburg, Germany), B.W. Lites (High Altitude Observatory, NCAR, Boulder, USA); A.M. Title (Lockheed Martin Solar and Astrophysical Lab, Palo Alto, USA).

Sunspots

A. Lagg and S. Tiwari in collaboration with V. Martínez Pillat (Instituto de Astrofísica de Canarias, Tenerife, Spain); B. Lites (High Altitude Observatory, Boulder, USA); S. K. Mathew (Udaipur Solar Observatory, India).

Sunspot tilt angles

M. Dasi, N.A. Krivova, S.K. Solanki in collaboration with T. Baranyi (Heliophysical Observatory of the Hungarian Academy of Sciences, Debrecen, Hungary).

Suprathermal heavy ions in corotating interaction regions

R. Bucik, U. Mall and A. Korthin collaboration with G. M. Mason (Applied Physics Laboratory, Johns Hopkins University, Laurel, USA); B. Klecker (Max-Planck-Institut fuer Extraterrestrische Physik, Garching, Germany).

Surface exploration of Kuiper Belt Objects and Cometary Nuclei

H. Boehnhardt in collaboration with S. Bagnulo (Armagh Observatory, UK); A. Barucci (Observatory Paris, Meudon, France); D. Cruikshank (NASA Ames Research Center, Moffett Field, USA); W. Grundy (Lowell Observatory, Flagstaff, USA); T. Herbst (MPI für Astronomie, Heidelberg, Germany); K. Muinonen (University Helsinki, Finland); C. Olkin (SWRI, Boulder, USA); G. P. Tozzi (INAF Arcetri Observatory, Florence, Italy).

Surface magnetic field effects in local helioseismology

L. Gizon and H. Schunker in collaboration with D. C. Braun (CoRA, Boulder, USA); P. S. Cally (Monash University, Victoria, Australia).

Tools for Local Helioseismology

A. C. Birch in collaboration with A. Crouch, B. Javornik, D. Braun (NWRA, Boulder, USA).

TNOs are cool

H. Boehnhardt, M. Rengel and Paul Hartogh in collaboration with T. Mueller (MPE, Garching, Germany); E. Lellouch, A. Barucci, J. Crovisier, A. Delsanti, A. Dorresoundiram, S. Fornasier, D. Hestroffer (Observatoire de Paris, Meudon, France); J. Stansberry, M. Mueller, D. Trilling (Northern Arizona University, Flagstaff, USA); E. Dotto (INAF Osservatorio Astronomico di Roma, Rome, Italy); R. Duffard, P. Gutierrez, L. Lara, R. Moreno, J.-L. Ortiz, P. Sanz, A. Thirosin (IAA, Granada, Spain); O. Groussin (LAM, Marseille, France); O. Hainaut (ESO, Garching, Germany); A. Harris (DLR, Berlin, Germany) J. Horner (Open University, Milton Keynes, UK); D. Jewitt, P. Lacerda (University of Hawaii, Honolulu, USA); M. Kidger (ESAC, Villafranca, Spain); C. Kiss (Konkoly Observatory, Budapest, Hungary); T. Lim, B. Swinyard (RAL, Didcot, UK); N. Thomas (Universität Bern, Switzerland).

Ulysses – DUST

H. Krüger (PI) in collaboration with N. Altobelli, C. Polanskey (Jet Propulsion Laboratory, Pasadena, USA); B. Anweiler, D. Linkert, G. Linkert, R. Srama (MPI für Kernphysik, Heidelberg, Germany); E. Grün, R. Srama (MPI für Kernphysik, Heidelberg and Hawaii Institute of Geophysics and Planetology, Honolulu, USA); S. F. Dermott, B. A. Gustafson (University of Florida, Gainesville, USA); A. Flandes (Instituto de Geofísica, UNAM, Coyoacán, Mexico); A. L. Graps (INAF-Istituto di Fisica dello Spazio Interplanetario, Rome, Italy); D. P. Hamilton (University of Maryland, College Park, USA); M. S. Hanner (Jet Propulsion Laboratory, Pasadena, USA); M. Horany (Laboratory for Atmospheric and Space Physics, University of Colorado, Boulder, USA); M. Landgraf (ESA/ESOC, Darmstadt, Germany); B. A. Lindblad (Lund Observatory, Lund, Sweden); I. Mann (Institut für Planetologie, Universität Münster, Germany); J.A.M. McDonnell (Planetary and Space Science Research Institute, Milton Keynes, UK); G. E. Morfill (MPI für Extraterrestrische Physik, Garching, Germany); G. Schwehm (ESTEC, Noordwijk, The Netherlands).

Using SDO/HMI data to investigate the energization of the coronal magnetic field

A. C. Birch and L. Gizon in collaboration with G. Barnes, K.D. Leka, D. Braun (NWRA, Boulder, USA); M. Wheatland (University of Sydney, Sydney, Australia).

Venus Express – ASPERA-4 (Analyzer of Space Plasmas and Energetic Atoms)

M. Fraenz, J. Woch and Y. Wei in collaboration with S. Barabash (PI), R. Lundin (IRF, Kiruna, Sweden); D. Winningham, R. Frahm (SWRI, San Antonio, USA); P. Wurz (Universität Bern, Switzerland); A. Coates (MSSL, Dorking, UK); M. Grande (RAL, Didcot, UK); C. C. Curtis (University

of Arizona, Tuscon, USA); J. A. Sauvaud, A. Fedorov (CESR, Toulouse, France); E. Kallio (FMI, Helsinki, Finland); S. Orsini (IFSI, Rome, Italy).

Venus Express – VMC (Venus Monitoring Camera)

W.J. Markiewicz, E. Shalygin and O. Shalygina in collaboration with H. Michalik, B. Fiethe, C. Dierker, B. Osterloh (Institut für Datentechnik und Kommunikationsnetze, TU Braunschweig, Germany); R. Jaumann, Th. Behnke, Th. Roatsch, K.-D. Matz, F. Scholten (DLR - Institut für Planetenforschung, Berlin, Germany); N. Ignatiev, D. Belyaev, I. Khatuntsev (Space Research Institute, Moscow, Russia); A. Basilevsky (Vernadsky Institute for Analytical Chemistry and Geochemistry, Moscow, Russia); S. Limaye (University of Wisconsin, Madison, USA).

WASPAM / CAUSES

P. Hartogh and C. Jarchow in collaboration with G. Hansen (Norsk institutt for luftforskning, Tromsø, Norway); U. P. Hoppe (Forsvarets forskningsinstitutt, Kjeller, Norway); M. Gausa (ALOMAR Observatory, Andenes, Norway); U. von Zahn, F. J. Lübken, U. Berger, G. Sonnemann (IAP Kühlungsborn, Germany); G. Nedoluha, M. Stevens (NRL, Washington DC, USA); P. Espy (British Antarctic Survey, Cambridge, UK); Y. Kasai (National Institute of Information and Communications Technology, Tokyo, Japan).

Waves in the solar atmosphere

L. Teriaca, S.K. Solanki, and G. Gupta in collaboration with D. Banerjee (Indian Institute of Astrophysics, Bangalore, India); G. Stenborg (Interferometrics Inc, Hemdon, USA).

Wave propagation in inclined magnetic fields

L. Gizon in collaboration with D. C. Braun (CoRA, Boulder, USA); P. Cally (Monash University, Australia).

WFI Archive project

C. Snodgrass in collaboration with B. Conn (Max-Planck-Institut für Astronomie, Heidelberg, Germany).

YORP effect on asteroids

C. Snodgrass in collaboration with S. Lowry (PI), S. Duddy (University of Kent, Canterbury, UK); A. Fitzsimmons (Queen's University, Belfast, UK); S. Green, B. Rozitis (Open University, Milton Keynes, UK); P. Weissman, S. Wolters, E. Rosenberg, M. Hicks (JPL, Pasadena, USA).

³He-rich solar energetic particle events

R. Bucik, U. Mall, A. Korth, D. Innes, B. Inhester in collaboration with G. M. Mason (Applied Physics Laboratory, Johns Hopkins University, Laurel, USA); R. Gomez-Herrero (University of Alcala, Alcala de Henares, Spain).

2. Vorschläge und Anträge / *Proposals*

2.1 Projektvorschläge / *Project proposals*

ADAHeli+ Small Class Space Mission

Submitted to ESA; not selected

M. Stangalini, A. Feller and J. Hitzberger with F. Berrilli, D. Del Moro (Università di Roma Tor Vergata, Rome, Italy); P. Sabatini (CGS Space SpA, Florence, Italy); A. Bigazzi (Serco SpA, Rome, Italy); L. Bellot Rubio (IAA, Granada, Spain); V. Martinez Pillet (IAC, Tenerife, Spain); F. Cavallini (INAF, Florence, Italy); E. Costa (IAPS, Rome Italy); M. Faurobert (University of Nice, Nice, France); I. Ermolli (INAF-OAR, Rome Italy).

Analysis of historical Ca II spectroheliogrammes for irradiance studies (Short-Term Scientific Mission within the COST-ES 1005 programme, Reference Number: COST-STSM-ES1005-10530)

selected

N. Krivova and A. Kar with I. Ermolli (INAF Osservatorio di Roma, Italy).

Constraining the magnetic connection of Jupiter's and Saturn's ring planes with their stratospheres

Submitted to DFG

P. Hartogh

JUICE-CEPAGE

Submitted to ESA

N. Krupp with Nicolas Andre (IRAP, Toulouse, France); Dominique Fontaine (LPP, Paris, France)

JUICE - Particle Environment Package

Submitted to ESA, selected

M. Fraenz and N. Krupp with S. Barabash (IRF, Kiruna, Sweden); P. Wurz (University of Bern, Switzerland); P. Brandt (APL, JPU, Baltimore, USA).

JUICE-SWI

Submitted to ESA; selected

M. Rengel, P. Hartogh, C. Jarchow with S. Gulbis (JPL, Pasadena, USA), S. Bolton (SwRI, USA), J.-M. Krieg (LERMA, Paris, France)

Long term variations in middle atmospheric water vapour and ozone. Detailed investigations of found discrepancies between observations and model calculations

Submitted to BMBF; not selected

P. Hartogh

LYCOR - Lyman COROnagraph for Proba3

Submitted to ESA; not selected

B. Inhester with Frederic Auchere (IAS, Orsay, France)

Magnetic Field Modeling of the Solar Atmosphere

Submitted to EU FP-7 Marie Curie and FWF (Austrian Science Fund)

J. Thalmann

MAJIS - Moons And Jupiter Imaging Spectrometer

Submitted to ESA

H. Boehnhardt and A. Nathues with G. Piccioni (Istituto di astrofisica e Planetologia Spaziali, Rome, Italy); F. Poulet (Institut d' Astrophysique Spatiale, Orsay, France); D. Blaney (Jet Propulsion Laboratory, Pasadena, USA).

MARIS Study - The MarcoPolo-R Imaging Spectrometer

Submitted to ESA; selected

H. Boehnhardt, A. Nathues, G. Tomasch, K. Schindler and H. Perplies with A. Barucci (LESIA Observatoire de Paris, Paris, France); L. Lara (Instituto de Astrofísica de Andalucía IAA-CSIC, Granada, Spain); Y. Langevin (Institut d' Astrophysique Spatiale, Orsay, France).

Mining and Exploiting the NASA SDO Data in Europe

not selected

B. Inhester with Frederic Auchere (IAS, Orsay, France).

Modelling and Understanding Solar Irradiance Changes (MUSIC) / ROMIC

Submitted to BMFT; selected

N. Krivova, S.K. Solanki, M. Schuessler and M. van Noort

MPRCS Study - The MarcoPolo-R Camera System for the visible wavelength range

Submitted to ESA; selected

H. Boehnhardt with M. Lara, J. de Leon, R. Rodrigo (Instituto de Astrofísica de Andalucía IAA-CSIC, Granada, Spain); A.-M. Harri, J. Silen (Finnish Meteorological Institute, Helsinki, Finland); K. Muinonen (University of Helsinki, Finland); H. Michalik, B. Fiethe (IDA, Technical University, Braunschweig, Germany); J. Oberst (DLR, Berlin, Germany).

Relationship Between Global Scale And Local Inhomogenities Of Active Region Magnetic Fields

A. Lagg and S.K. Solanki with P. Venkatakrishnan (Udaipur Solar Observatory at Physical Research Laboratory, Udaipur, India).

Sigma - Solar Investigation using Global coronal Magnetograph

not selected

B. Inhester with Andrei Zhukov (ROB, Bruxelles, Belgium).

Solaire Plus

Submitted to EU

J. Büchner with S. Poedts (K. University Leuven, Belgium) and others.

Space Applications of Nano-tube Devices

not selected

M. Fraenz with F. Leblanc (LATMOS, Paris, France); S. Orsini (IFSI, Rome, Italy); K. Torkar (IWF, Graz, Austria); U. Vohrer (Fraunhofer IGB, Stuttgart, Germany); A. Coates (MSSL, Reading, Great Britain).

StellarAges: Accurate ages of stars

Submitted to ERC Starting Grant; selected

L. Gizon with Saskia Hekker (PI), University of Amsterdam, Netherlands.

Study of dynamics of solar plasma: the roots of solar activity and space weather

M. Stangalini with F. Berrilli (Università di Roma Tor Vergata, Rome, Italy), S. Jefferies (University of Hawaii, Hawaii, USA)

The Solar Interface Region

Submitted to DFG

J. Wiegmann

Wasserdampf und Sauerstoff im Sonnensystem: Auswertung aktueller HssO- und Nachfolgebeobachtungen“

Submitted to DLR; not selected

P. Hartogh

2.2 Anträge auf Beobachtungszeit / *Observing time proposals*

HCN vertical abundance and temperature profile in Neptune's atmosphere

IRAM 30m telescope; not selected

M. Rengel, M. de Val-Borro, P. Hartogh, C. Jarchow with T. Cavalié, M. Dobrijevic (LAB, Bordeaux, France)

Observations of CO in Saturn's atmosphere: determining the vertical and horizontal distributions

CARMA; not selected

M. Rengel, M. de Val-Borro, T. Cavalié, P. Hartogh, C. Jarchow with M. Dobrijevic (LAB, Bordeaux, France)

Physical Properties of two special transNeptunian Objects and a retrograde Centaur

ALMA; selected

M. Rengel, P. Hartogh with E. Vilenius, T. Müller (MPE); K. Csaba (Konkoly Observatory, Hungary); M. Mommert (DLR, Berlin, Germany).

Sub-millimeter observations of HCN's in Neptunes atmosphere

Apex/ESO Sub-Millimeter Radio Telescope Arizona; not selected

M. Rengel, M. de Val-Borro, P. Hartogh, C. Jarchow with T. Cavalié, M. Dobrijevic (LAB, Bordeaux, France)

2.3 Anträge auf Rechenzeit / *Computing time proposals*

Evolution of the corona above an emerging active region

selected (8.6 mio CPUh)

H. Peter, Feng Chen and S. Bingert

Solar Magnetically Active Region Corona

DECI; selectd (0.6 Mio CPUh)

P.-A. Bourdin, Sven Bingert, Hardi Peter with Pia Zacharias (KIS, Freiburg, Germany).

Structure and evolution of an active region on the Sun

NIC, PRACE; selectd (6.4 Mio CPUh)

P.-A. Bourdin, Sven Bingert and Hardi Peter with Pia Zacharias (KIS, Freiburg, Germany).

3. Publikationen / *Publications*

3.1 Referierte Publikationen / *Refereed publications*

(fett gedruckt: zu MPS gehörig / *bold: affiliated to MPS*)

- A'Hearn, M. F., L. M. Feaga, H. U. Keller, H. Kawakita, D. L. Hampton, J. Kissel, K. P. Klaasen, L. A. McFadden, K. J. Meech, P. H. Schultz, J. M. Sunshine, P. C. Thomas, J. Veverka, D. K. Yeomans, S. Besse, D. Bodewits, T. L. Farnham, O. Groussin, M. S. Kelley, C. M. Lisse, F. Merlin, S. Protopapa1 and D. D. Wellnitz*, Cometary Volatiles and the Origin of Comets, *Astrophys. J.*, 758, 29, doi:10.1088/0004-637X/758/1/29, 2012.
- Alexandrova, A., R. Nakamura, V. S. Semenov, I. V. Kubyshev, S. Apatenkov, E. V. Panov, D. Korovinskiy, H. Biernat, W. Baumjohann, K. -H. Glassmeier and J. P. McFadden*, Remote estimation of reconnection parameters in the Earth's magnetotail: model and observations, *Ann. Geophys.*, 30, 1727-1741, doi:10.5194/angeo-30-1727-2012, 2012
- Alipour, N., H. Safari and D. E. Innes*, An Automatic Detection Method for Extreme-ultraviolet Dimmings Associated with Small-scale Eruption, *Astrophys. J.*, 746, 12–19, doi:10.1088/0004-637X/746/1/12, 2012.
- Altwegg, K., H. Balsiger, U. Calmonte, M. Hässig, L. Hofer, A. Jäckel, B. Schläppi, P. Wurz, J.J. Berthelier, J. De Keyser, B. Fiethe, S. Fuselier, U. Mall, H. Rème and M. Rubin*, In situ mass spectrometry during the Lutetia flyby, *Planet. Space Sci.*, 66, 173-178, doi:10.1016/j.pss.2011.08.011, 2012.
- Ammler-von Eiff, M. and A. Reiners*, New measurements of rotation and differential rotation in A-F stars: Are there two populations of differentially rotating stars?, *Astron. & Astrophys.*, 542, A116, doi:10.1051/0004-6361/201118724, 2012.
- Andriopoulou, M., E. Roussos, N. Krupp, C. Paranicas, M. Thomsen, S. Krimigis, M. K. Dougherty and K. H. Glassmeier*, A noon-to-midnight electric field and nightside dynamics in Saturn's inner magnetosphere, using microsignature observations, *Icarus*, 220, 503–513, doi:10.1016/j.icarus.2012.05.010, 2012.
- Araneda, J. A., H. Astudillo and E. Marsch*, Interactions of Alfvén-Cyclotron Waves with Ions in the Solar Wind, *Space Sci. Rev.*, 172, 361-372, doi:10.1007/s11214-011-9773-0, 2012.
- Arridge, C., C. B. Agnor, N. André, K. Baines, L. Fletcher, D. Gautier, M. Hofstadter, G. H. Jones, L. Lamy, Y. Langevin, O. Mousis, N. Nettelmann, C. T. Russell, T. Stallard, M. S. Tiscareno, G. Tobie, A. Bacon, C. Chaloner, M. Guest, S. Kemble, L. Peacocke, N. Achilleos, T. P. Andert, D. Banfield, S. Barabash, M. Barthelemy, C. Bertucci, P. Brandt, B. Cecconi, S. Chakrabarti, A. F. Cheng, U. Christensen, A. Christou, A. J. Coates, G. Collinson, J. F. Cooper, R. Courtin, M. K. Dougherty, R. W. Ebert, M. Entradas, A. N. Fazakerley, K. J. Fortney, M. Galand, J. Gustin, M. Hedman, R. Helled, P. Henri, S. Hess, R. Holme, Ö. Karatekin, N. Krupp, J. Leisner, J. Martin-Torres, A. Masters, H. Melin, S. Miller, I. Müller-Wodarg, B. Noyelles, C. Paranicas, I. de Pater, M. Pätzold, R. Prangé, E. Quémerais, E. Roussos, A. M. Rymer, A. Sánchez-Lavega, J. Saur, K. M. Sayanagi, P. Schenk, G. Schubert, N. Sergis, F. Sohl, E. C. Sittler Jr., N. A. Teanby, S. Tellmann, E. T. Turtle, S. Vinatier, J.-E. Wahlund and P. Zarka*, Uranus Pathfinder: exploring the origins and evolution of Ice Giant planets, *Experimental Astronomy*, 33, 753–791, doi:10.1007/s10686-011-9251-4, 2012.
- Bachelet, E., I.-G. Shin, C. Han, P. Fouqué, A. Gould, J. W. Menzies, J.-P. Beaulieu, D. P. Bennett, I. A. Bond, Subo Dong, D. Heyrovský, J.-B. Marquette, J. Marshall, J. Skowron, R. A. Street, T. Sumi, A. Udalski, L. Abe, K. Agabi, M. D. Albrow, W. Allen, E. Bertin, M. Bos, D. M. Bramich, J. Chavez, G. W. Christie, A. A. Cole, N. Crouzet, S. Dieters, M. Dominik, J. Drummond, J. Greenhill, T. Guillot, C. B. Henderson, F. V. Hessman, K. Horne, M. Hundertmark, J. A. Johnson, U. G. Jørgensen, R. Kandori, C. Liebig, D. Mékarnia, J. McCormick, D. Moorhouse, T. Nagayama, D. Nataf, T. Natusch, S. Nishiyama, J.-P. Rivet, K. C. Sahu, Y. Shvartzvald, G. Thornley, A. R. Tomczak, Y. Tsapras, J. C. Yee,*

- V. Batista, C. S. Bennett, S. Brilliant, J. A. R. Caldwell, A. Cassan, E. Corrales, C. Coutures, D. Dominis Prester, J. Donatowicz, D. Kubas, R. Martin, A. Williams, M. Zub, L. Andrade de Almeida, D. L. DePoy, B. S. Gaudi, L.-W. Hung, F. Jablonski, S. Kaspi, N. Klein, C.-U. Lee, Y. Lee, J.-R. Koo, D. Maoz, J. A. Muñoz, R. W. Pogge, D. Polishook, A. Shporer, F. Abe, C. S. Botzler, P. Chote, M. Freeman, A. Fukui, K. Furusawa, P. Harris, Y. Itow, S. Kobara, C. H. Ling, K. Masuda, Y. Matsubara, N. Miyake, K. Ohmori, K. Ohnishi, N. J. Rattenbury, To. Saito, D. J. Sullivan, D. Suzuki, W. L. Sweatman, P. J. Tristram, K. Wada, P. C. M. Yock, M. K. Szymański, I. Soszyński, M. Kubiak, R. Poleski, K. Ulaczyk, G. Pietrzyński¹, Ł. Wyrzykowski, N. Kains, **C. Snodgrass**, I. A. Steele, K. A. Alsubai, V. Bozza, P. Browne, M. J. Burgdorf, S. Calchi Novati, P. Dodds, S. Dreizler, F. Finet, T. Gerner, S. Hardis, K. Harpsøe, T. C. Hinse, E. Kerins, L. Mancini, M. Mathiasen, M. T. Penny, S. Proft, S. Rahvar, D. Ricci, G. Scarpetta, S. Schäfer, F. Schönebeck, J. Southworth, J. Surdej and J. Wambsganss, MOA 2010-BLG-477Lb: Constraining the Mass of a Microlensing Planet from Microlensing Parallax, Orbital Motion and Detection of Blended Light, *Astrophys. J.*, 754, 73, doi:10.1088/0004-637X/754/1/73, 2012.
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- Barucci, M. A., A. F. Cheng, P. Michel, L. A. M. Benner, R. P. Binzel, P. A. Bland, **H. Bönhardt**, J. R. Brucato, A. Campo Bagatin, P. Cerroni, E. Dotto, A. Fitzsimmons, I. A. Franchi, S. F. Green, L.-M. Lara, J. Licandro, B. Marty, K. Muinonen, **A. Nathues**, J. Oberst, A. S. Rivkin, F. Robert, R. Saladino, J. M. Trigo-Rodríguez, S. Ulamec and M. Zolensky, MarcoPolo-R near earth asteroid sample return mission, *Experimental Astronomy*, 33, 645–684, doi:10.1007/s10686-011-9231-8, 2012.
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- Bebesi, Z.**, **N. Krupp**, K. Szego, **M. Fränz**, Z. Nemeth, S. M. Krimigis, D. G. Mitchell, G. Erdos, D. T. Young and M. K. Dougherty, Analysis of energetic electron drop-outs in the upper atmosphere of Titan during flybys in the dayside magnetosphere of Saturn, *Icarus*, 218, 1020–1026, doi:10.1016/j.icarus.2012.01.009, 2012.
- Beck, B.**, R. Collet, M. Steffen, M. Asplund, **R. H. Cameron**, B. Freytag, W. Hayek, H.-G. Ludwig and **M. Schüssler**, Simulations of the solar near-surface layers with the CO5BOLD, MURaM and Stagger codes, *Astron. & Astrophys.*, 539, A121, doi:10.1051/0004-6361/201118252, 2012.
- Bertini, I., W. Sabolo, P. J. Gutierrez, F. Marzari, **C. Snodgrass**, **C. Tubiana**, **R. Moissl**, M. Pajola, S. C. Lowry, C. Barbieri, F. Ferri, B. Davidsson, **H. Sierks** and the OSIRIS Team, Search for satellites near (21) Lutetia using OSIRIS/Rosetta images, *Planet. Space Sci.*, 66(1), 64–70, doi:10.1016/j.pss.2011.12.022, 2012.
- Bethge, C., C. Beck, **H. Peter** and **A. Lagg**, Siphon flow in a cool magnetic loop, *Astron. & Astrophys.*, 537, A130, doi:10.1051/0004-6361/201118333, 2012.
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- Bishop, J. L., H. B. Franz, **W. Goetz**, D. F. Blake, C. Freissinet, **H. Steininger**, **F. Goesmann**, W. B. Brinckerhoff, S. Getty, V. T. Pinnick, P. R. Mahaffy and D. M. Darby, Coordinated analyses of Antarctic sediments as Mars analog materials using reflectance spectroscopy and current flight-like instruments for CheMin, SAM and MOMA, *Icarus*, doi:10.1016/j.icarus.2012.05.014, 2012.
- Biver, N., J. Crovisier, D. Bockelée-Morvan, S. Szutowicz, D. C. Lis, **P. Hartogh**, **M. de Val-Borro**, R. Moreno, J. Boissier, M. Kidger, M. Küppers, G. Paubert, N. Dello Russo, R. Vervack, H. Weaver and the HssO team, Ammonia and other parent molecules in comet 10P/Tempel 2 from Herschel/HIFI and ground-based radio observations, *Astron. & Astrophys.*, 539, A68, doi:10.1051/0004-6361/201118447, 2012.
- Bockelée-Morvan, D., N. Biver, B. Swinyard, M. **de Val-Borro**, J. Crovisier, **P. Hartogh**, D. C. Lis, R. Moreno, S. Szutowicz, E. Lellouch, M. Emprechtinger, G. A. Blake, R. Courtin, **C. Jarchow**, M. Kidger, K. Küppers, **M. Rengel**, G. R. Davis, T. Fulton, D. Naylor, S. Sidher and H. Walker, Herschel measurements of the D/H and 16O/18O ratios in water in the Oort-cloud comet C/2009 P1 (Garradd), *Astron. & Astrophys.*, 544, L15, doi:10.1051/0004-6361/201219744, 2012.
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3.2 Doktorarbeiten / *PhD theses*

W. Dietrich, The hemispherical magnetic field of ancient Mars - numerical simulations and geophysical constraints, Doktorarbeit, Georg-August-Universität Göttingen, 2012.

P. Kollmann, Sources, sinks, and transport of energetic particles within Saturn's magnetosphere, Doktorarbeit, Technische Universität Braunschweig, 2012.

Yeon Joo Lee, Venus cloud structure and radiative energy balance of the mesosphere, Technische Universität Braunschweig, 2012.

Megha Uprendra Bhatt, Mineralogical analysis and iron abundance estimation of the Moon using the SIR-2 and other VIS-NIR spectrometers on-board the lunar orbiter Chandrayaan-1, Technische Universität Clausthal, 2012.

D. Verscharen, On convected wave structures and spectral transfer in space plasmas – applications to solar corona and solar wind, Doktorarbeit, Technische Universität Braunschweig, 2012.

4. Vorträge und Poster / *Talks and posters*

(fett gedruckt: zu MPS gehörig / *bold: affiliated to MPS*)

(unterstrichen: Vortragende / *underline: presenter*)

- E. Adamson and J. Büchner**, Effects of Parameter Variations on the Energy Budget Near a Solar Coronal Bright Point Through a Parallel Implementation of Linmod3D, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012, invited. (Poster).
- E. Adamson, J. Büchner, and A. Otto**, Energy release in a solar coronal bright point region obtained through a new parallel implementation of LINMOD3D, DPG Frühjahrstagung, Stuttgart, Mar 12-16, 2012. (Oral).
- M. Andriopoulou, E. Roussos, N. Krupp, C. Paranicas, M. Thomsen, S. Krimigis, M. Dougherty, and **K.-H. Glassmeier****, Evidence of a noon-to-midnight electric field in Saturn, using the radial offsets of satellite electron absorptions, Cassini MAPS workshop, University of Cologne, March 28-30, 2012. (Oral).
- M. Andriopoulou, E. Roussos, N. Krupp, C. Paranicas, M. Thomsen, S. Krimigis, M. K. Dougherty, and **K.-H. Glassmeier****, Evidence of a noon-to-midnight electric field in Saturn's inner magnetosphere, using microsignatures, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.
- M. Andriopoulou, E. Roussos, N. Krupp, C. Paranicas, M. Thomsen, S. Krimigis, M. K. Dougherty, and **K. H. Glassmeier****, Studying the properties of the convective electric field at Saturn's inner magnetosphere, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- M. Andriopoulou, E. Roussos, N. Krupp, C. Paranicas, M. Thomsen, S. Krimigis, M. K. Dougherty, and **K.-H. Glassmeier****, Using microsignatures to determine the properties of an electric field at Saturn, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- M. Andriopoulou, E. Roussos, N. Krupp, C. Paranicas, M. Thomsen, T. Krimigis, M. Dougherty, and **K.-H. Glassmeier****, Study of the properties of an electric field in Saturn's inner magnetosphere, using the energetic electron microsignatures, CASSINI PSG Meeting, Sardinia, Italy, June 11-15, 2012. (Oral).
- M. Andriopoulou, E. Roussos, N. Krupp, C. Paranicas, M. Thomsen, K. Stamatios, M. Dougherty, and **K.-H. Glassmeier****, Using energetic electron microsignatures as tracers of electric fields in Saturn's magnetosphere (Invited), AGU Fall Meeting, San Francisco, USA, December 3-7, 2012.
- W. Ball, Y. C. Unruh, **N. A. Krivova**, **S. K. Solanki** and J. D. Haigh**, A New Spectral Solar Irradiance Dataset Using the SATIRE-S Model, SORCE Science Meeting 2012, Annapolis, USA, September 18-19, 2012.
- W. T. Ball, J. D. Haigh, Y. C. Unruh, **N. A. Krivova**, and **S. K. Solanki****, A Comparison of Model and Observational Spectra on Changes in Ozone Concentration Between 2003 and 2008, SORCE Science Meeting 2012, Annapolis, USA, September 18-19, 2012. (Oral).
- M. Barta and J. Büchner**, Processes of Fragmentation Cascade in Large-Scale Magnetic Reconnection, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012, invited Lecture.
- P. Barthol**, The balloon-borne solar observatory SUNRISE and its reflight 2013, First Sino-German Symposium on Solar Physics, Nanjing, China, October 16-19, 2012. (Oral).
- A. T. Basilevsky, E. V. Shalygin, W. J. Markiewicz, D. V. Titov, Th. Roatsch, and M. A. Kreslavsky**, Search for ongoing volcanic activity on Venus: Case study of Maat Mons, Sapas Mons and Ozza Mons, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- A. T. Basilevsky, E. V. Shalygin, D. V. Titov, W. J. Markiewicz, F. Schollten, Th. Roatsch, M. A. Kreslavsky, L. V. Moroz, N. I. Ignatiev, B. Fiethe, B. Osterloh, H. Michalchik, N. L. Mironov, and J. W.**

- Head*, Possible Felsic Summit of Tuulikki Mons, Venus: Evidence from 1-Micron Surface Emissivity and Magellan-Viewed Morphology, 43rd Lunar and Planetary Science Conference, The Woodlands, TX, USA, March 19-23, 2012. (Oral).
- Z. Bebesi**, *K. Szego*, **N. Krupp**, *Z. Nemeth*, *G. Erdos*, *F. J. Crary*, *D. G. Mitchell*, and *S. M. Krimigis*, On the structure of Titan's tail, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.
- B. Beeck**, **M. Schüssler**, and *A. Reiners*, Influence of a magnetic field on the photospheric structure of cool main-sequence stars, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).
- B. Beeck**, **M. Schüssler**, and *A. Reiners*, MHD simulations of surface convection in cool main-sequence stars, Cool Stars 17, Barcelona, Spain, June 24-29, 2012. (Oral). [Online]
- A. Beth*, *P. Garnier*, *D. Toubanc*, *I. Dandouras*, *C. Mazelle*, and **A. Kotova**, Modeling the satellite particles in planetary exospheres : application to Titan, Earth and Mars, AGU Fall Meeting, San Francisco, USA, December 3-7, 2012. (Poster).
- M. Bierwirth**, Destination Mars - Entwicklung eines Deployment Systems für ein planetares Seismometer, IV. Workshop der Elektronikentwickler der MPG, MPI für Chemie, Mainz, June 12-13, 2012. (Oral).
- M. Bierwirth**, Untersuchung des Langzeit-Dehnverhaltens von PE-Seilen, Forschungsseminar des Methodisch-Diagnostischen Zentrums Werkstoffprüfung e.V., Otto-von-Guericke-Universität, Magdeburg, March 28, 2012. (Oral).
- S. Bingert** and **H. Peter**, Active region coronal loops in a large scale 3D MHD model, AGU Fall Meeting, San Francisco, USA, Dec 3-7, 2012. (Poster).
- S. Bingert** and **H. Peter**, Active region coronal loops in a large scale coronal MHD model, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- S. Bingert** and **H. Peter**, Observational driven Large Scale Coronal Model, SDO-4/IRIS/Hinode workshop, Monterey, CA, March 12-16, 2012. (Oral).
- A. Birch**, Computational time-distance helioseismology, ISSI Workshop on "Helioseismology and Dynamics of the Solar Interior", International Space Science Institute (ISSI), Berne, Switzerland, September 24-28, 2012, invited. (Oral).
- A. Birch**, Local helioseismology of emerging active regions, First Sino-German Symposium on Solar Physics, Nanjing, China, October 16-19, 2012. (Oral).
- A. Birch**, Seismic inferences of the solar interior, ESF LFUI Conference: The Modern Era of Helio- and Asteroseismology, Obergurgl, Austria, May 20-25, 2012, invited. (Oral).
- N. Biver*, *D. Bockelée-Morvan*, *D. C. Lis*, *G. Paubert*, *B. Swinyard*, *J. Crovisier*, *R. Moreno*, *A. Gicquel*, *P. Colom*, *E. Lellouch*, **P. Hartogh**, *J. Boissier*, *M. Cordiner*, *R. Courtin*, *M. de Val-Borro*, *N. Dello Russo*, *M. Kidger*, *M. Küppers*, *S. Milam*, **M. Rengel**, *S. Szutowicz*, *R. J. J. Vervack*, *H. A. Weaver*, and *H. Team*, Molecular Survey of Comet C/2009P1 (Garradd) at mm to Submm Wavelengths, Asteroids, Comets, Meteors, Niigata, Japan, May 16-20, 2012. (Oral).
- D. Bockelée-Morvan*, *B. Swinyard*, *N. Biver*, **P. Hartogh**, *M. de Val-Borro*, *S. Szutowicz*, *J. Crovisier*, *D. C. Lis*, *R. Moreno*, *E. Lellouch*, *E. A. Bergin*, *M. Küppers*, *M. Kidger*, *M. Emprechtinger*, *R. Courtin*, **M. Rengel**, *G. Blake*, and *H. Team*, Water D/H Ratio in Comet C/2009 P1 (Garradd) from Herschel, Asteroids, Comets, Meteors, Niigata, Japan, May 16-20, 2012. (Poster).
- P.-A. Bourdin**, The Pencil Code IDL-GUI, Pencil Code User Meeting 2012, Helsinki, Finland, June 18-21, 2012. (Oral). [Online]
- P.-A. Bourdin**, **S. Bingert**, and **H. Peter**, Observationally driven 3D MHD model of a solar active region, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).

- P.-A. Bourdin, S. Bingert, and H. Peter**, Ohmic and viscous heating in solar active regions, Hinode-6, St. Andrews, Scotland, United Kingdom, August 14-17, 2012. (Oral). [Online]
- P.-A. Bourdin, S. Bingert, and H. Peter**, Viscous versus Ohmic heating in a MHD coronal model, From the Heliosphere into the Sun, 511th WE-Heraeus-Seminar, Bad Honnef, Germany, January 31-February 3, 2012, best Poster Award. (Poster). [Online]
- P.-A. Bourdin, S. Bingert, and H. Peter**, Viscous versus Ohmic heating in a MHD coronal model, NIC Symposium 2012, Jülich, Germany, February 7-8, 2012. (Poster).
- S. Bourouaine and E. Marsch**, On solar wind ion kinetics in correlation with short-wavelength transverse waves, DPG Frühjahrstagung, Stuttgart, Mar 12-16, 2012. (Poster).
- J. Büchner**, Currents in the corona: linking kinetic and magnetohydrodynamic scale, Royal Astronomical Society Special Meeting on "Kinetic Processes and Radiophysics of the Sun", London, October 12, 2012, invited lecture.
- J. Büchner**, Key Open Questions in Astrophysical Reconnection, Kickoff meeting of the Max-Planck-Princeton Center for Plasma Physics, Princeton, March 29, 2012. (Oral).
- J. Büchner**, Kinetic and MHD aspects of magnetic reconnection in the solar atmosphere, 5th Isradynamics Conference on Dynamical Processes in Space and Astrophysical Plasmas, Jerusalem, April 29th - May 7th, 2012, invited review lecture.
- J. Büchner**, Magnetic energy release at the Sun and other stars, Colloquium of the Merak Solar Station, Ladakh, India, July 28, 2012. (Oral).
- J. Büchner**, Magnetic energy release in the laboratory and in astrophysics, Colloquium of the Indian Institute of Astrophysics, Bangalore, India, July 23, 2012. (Oral).
- J. Büchner**, Magnetic energy release in the Solar corona, First Sino-German Symposium on Solar Physics, Nanjing, China, October 18, 2012, invited talk.
- J. Büchner**, Magnetic energy release in the Sun, Colloquium of the UC California Northridge, Northridge, March 25, 2012. (Oral).
- J. Büchner**, Magnetic reconnection at the Sun, Colloquium of the National Astronomical Observatories, Chinese Academy of Sciences (NAOC), Peking, China, October 24, 2012. (Oral).
- J. Büchner**, Magnetic reconnection in collisionless plasmas, Physics Colloquium at the University of Science and Technology of China, Hefei, China, October 22, 2012, invited talk. (Oral).
- J. Büchner**, Magnetic reconnection in Space, Colloquium of the Space Department of the Peking University, Peking, China, October 25, 2012. (Oral).
- J. Büchner**, Magnetic reconnection in the laboratory and in astrophysics, Colloquium of the Innsbruck University, Innsbruck, March 18, 2012. (Oral).
- J. Büchner**, Stability and Instabilities of Reconnection Regions, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012, invited Review Lecture.
- J. Büchner**, Which role does Joule heating play in 3D reconnection at X-ray bright points in the solar corona?, 9th International Cambridge Workshop on Magnetic reconnection, Copenhagen, August 28, 2012, invited talk.
- R. Bučík, U. Mall, A. Korth, G. M. Mason, and R. Gomez-Herrero**, 3He-rich events observed by STEREO-A, 13th International Solar Wind Conference, Big Island, Hawaii, USA, June 18-22, 2012. (Poster).
- R. Bučík, U. Mall, A. Korth, G. M. Mason, D. E. Innes, and B. Inhester**, Solar energetic particle 3He-rich events observed by STEREO-A, Fifth Solar Orbiter Workshop, Brugge, Belgium, September 10-14, 2012. (Poster).

- D. L. Buczkowski, D. Y. Wyrick, F. Capaccioni, J. E. C. Scully, D. A. Williams, H. Hiesinger, W. B. Garry, R. A. Yingst, **L. Le Corre**, **A. Nathues**, P. M. Schenk, R. Jaumann, C. A. Raymond, C. M. Pieters, T. Roatsch, F. Preusker, and C. T. Russell, Geologic Mapping of the Av-9 Numisia Quadrangle of Asteroid 4 Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- B. J. Buratti, M. D. Hicks, J. Y. Li, D. G. Blackburn, J. K. Hillier, **V. Reddy**, **S. E. Schroder**, **A. Nathues**, C. A. Raymond, C. T. Russell, S. Mottola, and T. Roatsch, The Roughness and Albedo of 4 Vesta and Vestoids, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Oral).
- R. Burston**, Travel Time Sensitivity Kernels for Structure and Flows, The Modern Era of Helio- and Asteroseismology, Universitätszentrum Obergurgl, Obergurgl, Austria, May 20-25, 2012. (Oral).
- R. Cameron**, Observational/Modelling constraints of magneto-convective energy transport into the solar atmosphere, SDO-4/IRIS/Hinode workshop, Monterey, CA, March 12-16, 2012. (Oral).
- R. Cameron**, The solar cycle: looking forward after a long and deep minimum, IAU XXVIII General Assembly, Beijing, China, August 20-31, 2012. (Oral).
- R. Cameron**, What determines the strengths of solar cycles?, Bcool, Göttingen, October 15-17, 2012. (Oral).
- R. Cameron** and **M. Schüssler**, Nonlinear feedback and the solar dynamo, IAU XXVIII General Assembly, Beijing, China, August 20-31, 2012. (Poster).
- R. H. Cameron** and M. Cheung, Magnetohydrodynamics of the Partially-Ionized Solar Atmosphere, Workshop on Partially Ionized Plasmas in Astrophysics, Tenerife, Spain, June 19-22, 2012.
- H. Cao, C. T. Russell, **J. Wicht**, **U. R. Christensen**, and M. K. Dougherty, The Size of the Solid Inner Core and Magnetic Field Configuration at the Dynamo surface, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- T. Cavalie, H. Feuchtgruber, B. Hesman, E. Lellouch, R. Moreno, T. Fouchet, R. Achterberg, A. Moullet, and **P. Hartogh**, Herschel Temporal Monitoring Observations Of H₂O In Saturn's Hot Stratospheric Vortex Between 2011 And 2012, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Oral).
- T. Cavalié, **P. Hartogh**, H. Feuchtgruber, E. Lellouch, **C. Jarchow**, R. Moreno, and G. Orton, Observation of water in Saturn with Herschel: probing Saturn's 2011 storm, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral). [Online]
- G. Cessateur, A. I. Shapiro, M. Dominique, M. Kretzschmar, **N. Krivova**, A. V. Shapiro, W. Schmutz, M. Schoell, **S. Solanki**, R. Tagirov, G. Thuillier, C. Wehrli, and **K. L. Yeo**, Solar Spectral Irradiance as observed by LYRA/PROBA2 and PREMOS/PICARD, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- F. Chen**, **H. Peter**, **S. Bingert**, **R. Cameron**, **M. Schüssler**, and M. Cheung, Coronal dynamics driven by magnetic flux emergence, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- U. R. Christensen**, Der Kleinplanet Vesta - Erste Ergebnisse der Raummission Dawn, Nicolaus Copernicus Planetarium, Nürnberg, January 31, 2012. (Oral).
- U. R. Christensen**, Eine Resie zu den Planeten, Pädagogisches Seminar der Kinder-Uni Göttingen "Neugier auf Neues", Göttingen, January 25, 2012. (Oral).
- U. R. Christensen**, Magnetfelder - ein Fenster ins tiefe Innere der Planeten, Planetariumsvorträge im Olbers-Planetarium der Hochschule Bremen, Bremen, April 3, 2012. (Oral).
- E. A. Cloutis, **V. Reddy**, **L. Le Corre**, L. Pompilio, P. Mann, **A. Nathues**, and H. Hiesinger, Spectral Reflectance Properties of HED Meteorites as a Function of Grain Size and Presence of CM2

Material, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).

L. L. Corre, V. Reddy, K. J. Becker, D. P. O'Brien, E. Palmer, J. Li, R. Gaskell, B. W. Denevi, A. Nathues, H. Sierks, and C. T. Russel, Nature of Orange Ejecta Around Oppia and Octavia Craters on Vesta from Dawn Framing Camera, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Oral).

W. Curdt and H. Tian, Explosive events - swirling chromospheric jets, XIIth Hvar Astrophysical Colloquium, Hvar, Croatia, Sep 3-7, 2012. (Oral).

W. Curdt, H. Tian, and S. Kamio, Explosive events - swirling transition region jets, 511. W.&E.-Heraeus seminar "From the Heliosphere into the Sun - Sailing against the Wind", Bad Honnef, Feb 1-3, 2012. (Poster).

W. Curdt, H. Tian, S. Kamio, and L. Teriaca, Explosive events - swirling transition region jets, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012. (Oral).

P. W. Daly, RAPID Status: Science Working Team Report, 3rd Cluster-Themis Workshop, Boulder, USA, Oct 1-5, 2012. (Oral).

M. Dasi-Espuig, J. Jiang, N. Krivova, and S. Solanki, A reconstruction of solar irradiance using a flux transport model, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).

M. Dasi-Espuig, J. Jiang, N. A. Krivova, and S. K. Solanki, A reconstruction of solar irradiance using a flux transport mode, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012. (Oral).

M. C. de Sanctis, A. Nathues, E. Ammannito, F. Capaccioni, A. Frigeri, L. Le Corre, R. Jauman, E. Palomba, C. M. Pieters, V. Reddy, K. Stephan, F. Tosi, A. Yingst, F. Zambon, M. A. Barucci, D. T. Blewett, M. T. Capria, J.-P. Combe, B. W. Denevi, H. U. Keller, S. Marchi, T. B. McCord, L. A. McFadden, H. McSween, C. A. Raymond, C. T. Russell, J. Sunshine, M. Toplis, and J. Y. Li, First Mineralogical Maps of 4 Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Oral).

M. de Val-Borro, P. Hartogh, N. Biver, D. Bockelée-Morvan, J. Crovisier, M. Küppers, S. Szutowicz, D. C. Lis, R. Moreno, M. Rengel, M. Emprechtinger, C. Jarchow, E. Jehin, L. Lara, and M. Kidger, Constraining Outgassing Activity in the Main-Belt Comet 176P/LINEAR with Herschel, Asteroids, Comets, Meteors, Niigata, Japan, May 16-20, 2012. (Oral).

W. Deutsch, P. Barthol, and G. Thomasch, Sunrise, IV Workshop der Elektronikentwickler der MPG, MPI für Chemie, Mainz, June 12-13, 2012. (Oral).

W. Dietrich, K. Hori, J. Wicht, and U. Christensen, Time dependence of the Ancient Martian Dynamo, Helmholtz Research Alliance 'Planetary Evolution and Life', 4-th Alliance Week, Berlin-Adlershof, Berlin, Feb 20-24, 2012. (Oral).

W. Dietrich, J. Wicht, and U. Christensen, Boundary driven Thermal Winds and Parker Waves in Planetary Dynamos, AGU Fall Meeting, San Francisco, USA, Dec 3-7, 2012. (Poster).

W. Dietrich, J. Wicht, and U. Christensen, Boundary driven thermal winds and Parker Waves in planetary Dynamos, MHD days + IGDR meeting, Nice, France, Oct 1-4, 2012. (Poster).

W. Dietrich, J. Wicht, and U. Christensen, Hemispherical Dynamos on Terrestrial Planets, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).

W. Dietrich, J. Wicht, and U. Christensen, Time variability of hemispherical dynamos: An application to Mars, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).

M. Dougherty, N. Krupp, O. Grasset, C. Erd, D. Titov, E. Bunce, A. Coustenis, A. Coates, P. Drossart, L. Fletcher, H. Hussmann, R. Jaumann, O. Prieto-Ballesteros, P. Tortora, F. Tosi, and T. Van Hoolst,

Why go to Jupiter? The case for the JUICE (JGO-LAPLACE) Mission, AOGS 2012, Singapore, August 13-17, 2012, invited. (Oral).

M. K. Dougherty, *O. Grasset, C. Erd, D. Titov, E. J. Bunce, A. Coustenis, M. Blanc, A. J. Coates, P. Drossart, L. Fletcher, H. Hussmann, R. Jaumann, N. Krupp, O. Prieto-Ballesteros, P. Tortora, F. Tosi, and T. Van Hoolst*, JUPITER ICy moons Explorer (JUICE): AN ESA L-CLASS MISSION CANDIDATE TO THE JUPITER SYSTEM, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.

E. Dubinin, Ionospheric Magnetic Fields at Venus and Mars, seminar, Laboratoire Atmospheres, Mileux, Observations Spatiales, Guyancourt, France, June 21, 2012. (Oral).

E. Dubinin, Mars Plasma Environment during Strong Solar Activity, HELIOSARES-meeting, Laboratoire Atmospheres, Mileux, Observations Spatiales, Paris University 5, France, June 19, 2012. (Oral).

E. Dubinin, Solar wind induced escape on Mars and Venus. Mutual lessons from different space missions, The Third Moscow Solar System Symposium, Moscow, Russia, 8-12 October, 2012.

E. Dubinin, Solar wind/ionosphere coupling at Mars, The Induced Magnetosphere of Mars: Physical Processes and Consequences, ISSI, Bern, November 12-16, 2012. (Oral).

E. Dubinin, M. Fraenz, Y. Wei, J. Woch, D. Morgan, T.-L. Zhang, A. Fedorov, S. Barabash, and R. Lundin, CMEs impact Venus and Mars, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012.

E. Dubinin, M. Fraenz, J. Woch, T.-L. Zhang, Y. Wei, A. Fedorov, S. Barabash, and R. Lundin, Induced magnetic fields at Venus and their effect on ion escape, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).

E. Dubinin, M. Fraenz, T.-L. Zhang, Y. Wei, J. Woch, A. Fedorov, S. Barabash, R. Lundin, and F. Duru, Ionospheric magnetic fields and currents at Mars and Venus. Perspectives from MEX and VEX observations, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012.

C. Ejeta, H. Boehnhardt, and S. Bagnulo, Search for chiral signatures in space - the case of Iapetus, Astrobiology Graduate Conference 2012,, held at Caltech and JPL, Pasadena, USA., August 26-30, 2012. (Poster).

C. Ejeta, H. Boehnhardt, S. Bagnulo, K. Muinonen, and L. Kolokolova, Polarization of Saturn's moon Iapetus, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).

M. R. El Maarry, J. Kodikara, W. J. Markiewicz, S. Wijessoriya, and N. Thomas, Modeling the Formation of Large Desiccation Polygons on Earth: Possible Relation to Intermediate-Sized Polygons on Mars and Implications to Mars Hydrology, 43rd Lunar and Planetary Science Conference, The Woodlands, TX, USA, March 19-23, 2012. (Poster).

D. Elbeshausen, K. Wünnemann, H. Sierks, J. B. Vincent, and N. Oklay, Landslides triggered by impacts on asteroid (21) Lutetia?, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).

D. Elbeshausen, K. Wünnemann, H. Sierks, J.-B. Vincent, and N. Oklay, The Effect of Topography on the Impact Cratering Process on Lutetia, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).

T. Encrenaz, R. Moreno, E. Lellouch, T. Fouchet, P. Hartogh, C. Jarchow, F. Lefèvre, and T. Cavalié, Latitudinal And Seasonal Variations Of O₂ And D/H On Mars Using Herschel/HIFI, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Oral).

S. Fineschi, E. Antonucci, G. Naletto, M. Romoli, D. Spadaro, G. Nicolini, L. Abbo, V. Andretta, A. Bemporad, A. Berlicki, G. Capobianco, G. Crescenzo, V. D. Deppo, M. Focardi, F. Landini, G. Massone, M. A. Malvezzi, J. D. Moses, P. Nicolosi, M.-G. Pelizzo, L. Poletto, U. Schühle, S. K.

- Solanki, D. Telloni, L. Teriaca, and M. Uslenghi**, METIS: a novel coronagraph design for the Solar Orbiter Mission, Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, July 1 - 6, 2012. (Oral).
- A. Fludra, D. Griffin, M. Caldwell, P. Eccleston, J. Cornaby, D. Drummond, W. Grainger, P. Greenway, T. Grundy, C. Howe, C. McQuirk, K. Middleton, R. Parker, O. Poyntz Wright, T. Richards, C. Sawyer, B. Shaughnessy, S. Sidher, I. Tosh, S. Beardsley, G. Burton, A. Marshall, N. Waltham, T. Appourchaux, A. Philippon, F. Auchere, E. Buchlin, A. Gabriel, J. C. Vial, U. Schühle, W. Curdt, D. Innes, S. Meining, H. Peter, S. Solanki, L. Teriaca, M. Gyo, M. Haberreiter, D. Pfiffner, W. Schmutz, M. Carlsson, J. Davila, W. Thompson, D. Hassler, C. Deforest, J. Hanley, J. Johnson, B. Walls, L. Blecha, H. Cottard, G. Paciotti, N. Autissier, Y. Allemand, C. Thomas, A. Butler, and G. Munro**, SPICE EUV Spectrometer for the Solar Orbiter, 5th Solar Orbiter Workshop, Bruges, September 10 - 14, 2012. (Poster).
- M. Fraenz, E. Dubinin, Y. Wei, J. Woch, D. Morgan, S. Barabash, R. Lundin, and A. Fedorov**, Cold Ion Escape from the Martian Ionosphere, AGU Fall Meeting, San Francisco, USA, Dec 3-7, 2012. (Poster).
- M. Fraenz, E. Dubinin, Y. Wei, J. Woch, D. Morgan, S. Barabash, R. Lundin, and A. Fedorov**, Ion escape from the Martian ionosphere, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- M. Fraenz, E. Dubinin, Y. Wei, J. Woch, D. Morgan, S. Barabash, R. Lundin, and A. Fedorov**, Cold Ion Escape from the Martian Ionosphere, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- M. Fraenz, N. Krupp, and E. Roussos**, The thermal plasma environment of Jupiter and its moons - revisited, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012.
- M. Fraenz, N. Krupp, and E. Roussos**, The thermal plasma environment of Jupiter and its moons - revisited, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- P. Garnier, J.-E. Wahlund, M. Holmberg, A. Eriksson, S. Grimald, M. Morooka, G. Gustafsson, P. Schippers, D. A. Gurnett, S. M. Krimigis, N. Krupp, A. Coates, and F. Crary**, Mapping energetic electrons in the magnetosphere of Saturn with the Cassini RPWS Langmuir Probe, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.
- C. Giri, M. Cornelia, E. Amanda, N. Laurent, G. Fred, and M. Uwe**, Sojourn of chiral organics from ISM to comets - The COSAC experiment onboard Rosetta mission, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- C. Giri, M. Cornelia, E. Amanda, N. Laurent, G. Fred, and M. Uwe**, Sojourn of chiral organics from ISM to comets - The COSAC experiment onboard Rosetta mission, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- C. Giri, M. Cornelia, H. Soeren, E. Amanda, d'Hendecourt Louis, N. Laurent, G. Fred, and M. Uwe**, Formation and Chiroptical Properties of Amino Acids in Interstellar Ice Analogues, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012. (Oral).
- C. Giri, G. Fred, and M. Uwe**, Characterization of the Rosetta COSAC Flight Spare Model II with Comet-type Volatiles, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012. (Poster).
- L. Gizon**, 3D Seismic Tomography of the Sun, European Week of Astronomy and Space Science (EWASS 2012), Pontificia Università Lateranense, Rome, Italy, July 1-6, 2012, invited. (Oral).
- L. Gizon**, Advances in helioseismology, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012, invited. (Oral).

- L. Gizon**, Asteroseismology constraints on rotation of Sun-like star, Fujihara seminar: Progress in Physics of the Sun and Stars: A New Era in Helio- and Asteroseismology, Hakone, Japan, November 25-30, 2012, invited. (Oral).
- L. Gizon**, Helioseismology challenges models of solar convection, Fujihara seminar: Progress in Physics of the Sun and Stars: A New Era in Helio- and Asteroseismology, Hakone, Japan, November 25-30, 2012. (Poster).
- L. Gizon**, Helioseismology with Solar Orbiter, ISSI Workshop on "Helioseismology and Dynamics of the Solar Interior", International Space Science Institute (ISSI), Berne, Switzerland, September 24-28, 2012, invited. (Oral).
- L. Gizon**, Noise tomography of the Sun, 2nd Neustadt Workshop on Noise and Diffuse Wavefields, Neustadt/Weinstrasse, Germany, November 11-14, 2012, invited. (Oral).
- L. Gizon**, Overview on Discussion II: The next generation of solar and stellar modelling - which theories are needed, ESF LFUI Conference: The Modern Era of Helio- and Asteroseismology, Obergurgl, Austria, May 20-25, 2012, invited. (Oral).
- L. Gizon**, Probing solar convective velocities with helioseismology, ISSI Forum "Solar Activity and the Solar Cycle: Future Developments and Applications", Bern, Switzerland, November 20-21, 2012, invited. (Oral).
- L. Gizon**, Status of PDC, PLATO Board Meeting, Institut für Planetenforschung, DLR, Berlin-Adlershof, Germany, March 21, 2012. (Oral).
- L. Gizon**, Sunspot seismology, 2nd Neustadt Workshop on Noise and Diffuse Wavefields, Neustadt/Weinstrasse, Germany, November 11-14, 2012, invited. (Oral).
- L. Gizon** and *J. Marques*, Solar results in the stellar context, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012, invited. (Oral).
- W. Goetz**, Curiosity's Expedition zum Mars, Vortragsreihe Astronomie, Anton Bruckner Gymnasium, Straubing, March 7, 2012. (Oral).
- O. Grasset, O. Prieto-Ballestros, M. K. Dougherty, D. Titov, C. Erd, E. Bunce, A. Coustenis, M. Blanc, A. Coats, P. Drossant, L. Fletcher, T. van Hoolst, H. Hussmann, R. Jaumann, N. Krupp, P. Tortora, F. Tosi, and A. Wieters*, Habitability of the giant icy moons: current knowledge and future insights from the JUICE mission, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- G. R. Gupta, L. Teriaca, E. Marsch, S. K. Solanki, and D. Banerjee**, Spectroscopic Observations of Propagating Disturbances in Polar Coronal hole, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012. (Oral).
- S. Haaland**, Cold ion outflow from the polar ionosphere, Space Sciences Seminar Series, Boston University, MA, USA, Sep 27, 2012. (Oral).
- S. Haaland**, On the sink and source of cold ion outflow, Cluster - Themis Meeting, Boulder, CO, USA, Oct 1-5, 2012. (Oral).
- S. Haaland** and *J. Gjerloev*, On the Role of the Magnetopause for Ring Current Closure, AGU Fall Meeting, San Francisco, Dec 3-7, 2012. (Oral).
- S. Haaland**, *K. Svenes, B. Lybekk, and A. Pedersen*, Density holes in the cusp and polar cap regions, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- J.-P. Halain, P. Rochus, E. Renotte, T. Appourchaux, D. Berghmans, L. K. Harra, U. Schühle, W. K. Schmutz, F. Auchère, A. Zhukov, A. Benmoussa, F. Delmotte, C. Dumesnil, M. Kahle, T. E. Kennedy, R. F. Mercier, D. Pfiffner, L. Rossi, J. A. Tandy, and P. J. Smith*, The EUI instrument on board the Solar Orbiter Mission: from breadboard and prototypes to instrument model validation, Space

Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, July 1 - 6, 2012. (Oral).

S. Hanasoge, Helioseismic constraints on solar convection, Special MPS Seminar, Katlenburg-Lindau, January 9, 2012. (Oral).

P. Hartogh, Beobachtung von Wasserdampf in Kometenatmosphären mit Herschel, Institutskolloquium, FU Berlin, Berlin, November 29, 2012. (Oral).

P. Hartogh, Herschel highlights: planetary atmospheres, SOFIA Community Days, Max Planck Institute for Radioastronomy, Bonn, February 6-7, 2012, invited. (Oral).

P. Hartogh, Herschel observations of planets, Planet Formation and Evolution 2012, 8th Conference on Formation and Evolution of Planetary Systems, Munich, Germany, September 3-7, 2012. (Oral). [Online]

P. Hartogh, Herschel observations of water in comets, Institutskolloquium, Max-Planck-Institut für Chemie, Mainz, June 06, 2012. (Oral).

P. Hartogh, Herschel Solar System Observations: latest results, DPG-Frühjahrstagung, Stuttgart, March 12-16, 2012, invited. (Oral). [Online]

P. Hartogh, Heterodyne observations of the solar system in the far infrared, Science with the Atacama Pathfinder Experiment (APEX), Ringberg Castle, February 12-15, 2012, invited. (Oral).

P. Hartogh, Microwave Heterodyne Observations of Atmospheres at MPS, UESTC, Beijing, China, August 27, 2012, invited. (Oral).

P. Hartogh, Microwave Limb Sounding of Planetary Atmospheres, International Symposium on Lunar and Planetary Science, Macau, March 26-27, 2012. (Oral).

P. Hartogh, Observations of the solar system with Herschel, UCL Seminar, University College London, London, UK, November 12, 2012. (Oral).

P. Hartogh, Sub-mm wave measurements on JUICE, Planetary Exploration Workshop with main focus on Jupiter, Kiruna, Sweden, January 31 - February 1, 2012. (Oral). [Online]

P. Hartogh, The atmosphere of Jupiter, Planetary Exploration Workshop with main focus on Jupiter, Kiruna, Sweden, January 31 - February 1, 2012, invited. (Oral). [Online]

P. Hartogh, WASPAM status and latest science results, ALOMAR Scientific Advisory Committee Meeting, Norderstedt, March 12-13, 2012. (Oral).

P. Hartogh, Water in the solar system, Characterizing & Modeling Extrasolar Planetary Atmospheres - Theory & Observation, MPIA, Heidelberg, July 16 - 19, 2012. (Oral). [Online]

P. Hartogh, Water vapor observations in the atmospheres of Earth and Mars, IAU Symposium 293: Formation, Detection, and Characterization of Extrasolar Habitable Planets, Beijing, China, August 27-31, 2012. (Poster). [Online]

P. Hartogh, D. C. Lis, D. Bockelée-Morvan, M. de Val-Borro, N. Biver, M. Küppers, M. Emprechtinger, E. A. Bergin, J. Crovisier, **M. Rengel**, R. Moreno, S. Szutowicz, and G. A. Blake, Ocean-like Water in Jupiter-family Comet 103P/Hartley 2, AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012, invited. (Oral). [Online]

P. Hartogh, D. C. Lis, D. Bockelée-Morvan, M. de Val-Borro, N. Biver, M. Küppers, M. Emprechtinger, E. A. Bergin, J. Crovisier, **M. Rengel**, R. Moreno, S. Szutowicz, G. A. Blake, and H. Team, Ocean like Water in Jupiter-Family Comet 103P/Hartley 2, Asteroids, Comets, Meteors, Niigata, Japan, May 16-20, 2012. (Oral).

P. Hartogh, D. C. Lis, D. Bockelée-Morvan, M. de Val-Borro, N. Biver, M. Küppers, M. Emprechtinger, E. A. Bergin, J. Crovisier, **M. Rengel**, R. Moreno, S. Szutowicz, G. A. Blake, and the HssO Team,

Ocean like Water in Jupiter-Family Comet 103P/Hartley 2, Observing Planetary Systems II, ESO-Santiago de Chile, 5-8 March, 2012. (Oral). [Online]

P. Hartogh, D. C. Lis, D. Bockelée-Morvan, M. de Val-Borro, N. Biver, M. Küppers, M. Emprechtinger, E. A. Bergin, J. Crovisier, **M. Rengel**, R. Moreno, S. Szutowicz, G. A. Blake, and the HssO Team, Ocean like water in Jupiter-Family Comet 103P/Hartley 2, Goldschmidt 2012, Montreal, Canada, June 24-29, 2012, highlight of the day: <http://goldschmidt2012.conferencesymposium.com/june26.html>. (Oral). [Online]

P. Hartogh and the HssO Team, Herschel observations of the solar system, European Week of Astronomy and Space Science, Rome, Italy, July 1-6, 2012, invited. (Oral). [Online]

P. Hartogh and the HssO-team, Vertical profiles of molecular oxygen and water vapour on Mars, Observing Planetary Systems II, ESO-Santiago de Chile, 5-8 March, 2012. (Oral).

P. Hartogh, G. Tinetti, B. Swinyard, P. Eccleston, A. Adriani, J.-P. Beaulieu, N. Bowles, D. Belenguer, I. Bryson, V. Coudé de Foresto, M. Ferlet, **C. Jarchow**, P.-O. Lagage, M. Lopez-Morales, G. Micela, G. Morgante, H. U. Nørgaard-Nielsen, M. Ollivier, E. Pace, G. Ramoz Zapata, J.-M. Reess, I. Ribas, M. Swain, G. Wright, and M. R. Zapatero-Osorio, The Exoplanet Characterisation Observatory (EChO), AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Oral). [Online]

M. Hofmann, **H. Sierks**, and J. Blum, Granular flow in low gravity space environment, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).

K. Hori and **J. Wicht**, Cessation of early Martian dynamos due to subcriticality, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).

K. Hori, **J. Wicht**, **W. Dietrich**, and **U. Christensen**, Influence of thermal boundary conditions on convection and dynamos in early and present earth-like cores, American Geophysical Union General Assembly, San Francisco, USA, Dec 3-7, 2012. (Oral).

D. E. Innes, Break up of filament plasma by Rayleigh-Taylor instabilities, MSSL Seminar, Mullard Space Science Laboratory, England, November 3, 2012. (Oral).

D. E. Innes, Break up of filament plasma by Rayleigh-Taylor instabilities, 1st Sino-German Symposium on Solar Physics, Nanning, China, October 16-19, 2012. (Oral).

D. E. Innes, Break up of filament plasma by Rayleigh-Taylor instabilities, Seminar, Kiel University, Germany, November 27, 2012. (Oral).

D. E. Innes, Observations of quiet-Sun transition region and coronal transients, Eclipse on the Coral Sea, Palm Cove, Australia, November 12-16, 2012. (Oral).

D. E. Innes, **J. Park**, **R. Bucik**, and **G. M. Mason**, The source regions of SEPs detected by widely separated spacecraft, Fifth Solar Orbiter Workshop, Brugge, Belgium, September 10-13, 2012. (Poster).

S. Jafarzadeh, **R. H. Cameron**, **S. K. Solanki**, and **A. Pietarila**, Diffusivity of internetwork bright points observed by SUNRISE, SDO-4/IRIS/Hinode Workshop: Dynamics and energetics of the coupled solar atmosphere, Monterey, USA, March 12-16, 2012. (Oral).

S. Jafarzadeh, **S. K. Solanki**, **A. Lagg**, **M. van Noort**, **A. Feller**, and **L. R. B. Rubio**, Do inversions provide the correct inclinations of small magnetic features?, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).

S. Jafarzadeh, **S. K. Solanki**, **M. Stangalini**, and **R. H. Cameron**, Longitudinal and kink waves in small magnetic features studied by Sunrise, Eclipse on the Coral Sea: Cycle 24 Ascending - GONG 2012 / LWS/SDO-5 / SOHO 27, Palm Cove, Queensland, Australia, November 12-16, 2012. (Poster).

G. H. Jones, **A. J. Coates**, **C. S. Arridge**, **A. Wellbrock**, **N. Krupp**, **D. T. Young**, and **M. K. Dougherty**, Negatively-charged particle pickup in the Enceladus plume, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).

- A. Kar**, *N. A. K. Ilaria Ermolli*, and **S. K. Solanki**, Analysis of Historical Ca II K Images for Applications to Solar Irradiance Reconstructions, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- S. Kasahara**, **E. Kronberg**, *T. Kimura*, *C. Tao*, *S. Badman*, *A. Masters*, *A. Retinò*, **N. Krupp**, and *M. Fujimoto*, Plasma structures during Jovian tail reconnection observed by Galileo, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Poster).
- S. Kasahara**, **E. Kronberg**, **N. Krupp**, *T. Kimura*, *C. Tao*, *S. Badman*, *A. Retino*, and *M. Fujimoto*, Magnetic reconnection in the Jovian tail: X-line formation and consequent plasma sheet structures, AOGS 2012, Singapore, August 13-17, 2012. (Oral).
- K. K. Khurana**, **N. Krupp**, *M. G. Kivelson*, **E. Roussos**, *C. T. Russell*, and *M. K. Dougherty*, Cassini's Flyby Through Rhea's Distant Alfvén Wing, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012.
- K. Kikuchi**, *H. Sagawa*, **T. Kuroda**, *Y. Kasai*, *S. Ochiai*, *T. Nishibori*, *T. Manabe*, **P. Hartogh**, *J. Urban*, and *D. Murtagh*, Introduction to the Submillimeter Receiver System for the Atmospheric Emission Sounder FIRE Onboard a Martian Orbiter MELOS, AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Poster). [Online]
- C. Kiss**, *E. Vilenius*, *T. G. Müller*, *A. Pál*, **M. Rengel**, *M. Mommert*, *N. Szalai*, *P. Santos-Sanz*, *E. Lellouch*, and *J. Stansberry*, Thermal Emission of the Eris – Dysnomia System as Observed by Herschel/PACS, Asteroids, Comets, Meteors, Niigata, Japan, May 16-20, 2012. (Oral).
- M. Kivelson**, **N. Krupp**, and *N. Achilleos*, Saturn's Puzzling Periodic Variations, AOGS 2012, Singapore, July 13-17, 2012, invited. (Oral).
- P. Kollmann**, Quellen, Senken und Transport energetischer Teilchen in Saturns Magnetosphäre, Disputation, Institut für Geophysik und extraterrestrische Physik der Universität Braunschweig, March 26, 2012. (Oral).
- P. Kollmann**, **E. Roussos**, **N. Krupp**, and *C. Paranicas*, Why do Saturn's energetic particle profiles look as they do?, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.
- P. Kollmann**, **E. Roussos**, **N. Krupp**, *C. Paranicas*, and *D. K. Haggerty*, Processes forming and sustaining Saturn's proton radiation belts, Cassini MAPS workshop, University of Cologne, March 28-30, 2012. (Oral).
- A. Kotova**, **N. Krupp**, **E. Roussos**, *I. Dandouras*, and *K. K. Khurana*, Energetic ion observations on Rhea, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- A. Kotova**, **N. Krupp**, **E. Roussos**, *I. Dandouras*, and *K. K. Khurana*, Energetic ion observations on Rhea, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Poster).
- A. Kotova**, **E. Roussos**, **N. Krupp**, *I. Dandouras*, and *K. K. Khurana*, Energetic ion observations on Rhea, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Poster).
- N. A. Krivova**, Irradiance Reconstructions, FUPSOL/PAGES Meeting, Davos, Switzerland, September 5-8, 2012, invited.
- N. A. Krivova**, Solar Variability and Climate: Variations in the Solar Radiative Output, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012, invited.
- N. A. Krivova**, Spectral irradiance reconstructions with SATIRE, COST ES1005 - TOSCA Workshop on "Recent variability of the solar spectral irradiance and its impact on climate modelling", Berlin, May 14-16, 2012, invited.
- N. A. Krivova**, *W. Ball*, *Y. C. Unruh*, and **S. K. Solanki**, Solar Spectral Irradiance Variations, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012, invited.
- N. A. Krivova**, *M. Dasi Espuig*, and **S. K. Solanki**, Long-term reconstructions of total solar irradiance, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012, invited.

- E. Kronberg**, Plasma transport in a disk, ISSI workshop "Giant planet magnetodiscs and aurorae", Bern, Switzerland, November, 26-30, 2012. (Oral).
- E. Kronberg**, Solar-terrestrial interactions, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012.
- E. Kronberg**, **E. Grigorenko**, **P. W. Daly**, **L. Kistler**, and **I. Dandouras**, Dawn-dusk asymmetries in the near-Earth magnetosphere: ion observations, AGU Fall Meeting, San Francisco, USA, December 3-7, 2012. (Poster).
- E. Kronberg**, **S. Haaland**, **P. W. Daly**, **E. Grigorenko**, **L. Kistler**, **M. Fraenz**, and **I. Dandouras**, Oxygen ions during storms and substorms, 3rd Cluster-Themis Workshop, Boulder, USA, Oct 1-5, 2012. (Oral).
- E. Kronberg**, **S. Haaland**, **P. W. Daly**, **E. E. Grigorenko**, **M. Fraenz**, **L. M. Kistler**, and **I. Dandouras**, EGU2012-10642 Acceleration of the oxygen and protons in the terrestrial magnetosphere, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- E. Kronberg**, **T. Wiegmann**, **D. Nickeler**, **E. Panov**, and **S. Haaland**, Comparing MHD equilibria with Cluster magnetopause observations, 3rd Cluster-Themis Workshop, Boulder, USA, Oct 1-5, 2012. (Poster).
- H. Krüger**, Raumsonde Rosetta - Verabredung mit einem Kometen, Deutsches Museum, München, November 21, 2012. (Oral).
- H. Krüger**, Stardust in Comets, Comets seminar, MPS, Katlenburg-Lindau, December 14, 2012. (Oral).
- H. Krüger**, Vorstoß ins Sonnensystem - 50 Jahre Planetenforschung, Volkshochschule, Binau/Mosbach (Baden), December 07, 2012. (Oral).
- H. Krüger**, **T. Ossowski**, **A. Flandes**, **A. Herwig**, **K. J. Seidensticker**, **I. Apáthy**, **W. Arnold**, **H.-H. Fischer**, **A. Hirn**, **M. Jünemann**, **A. Loose**, **A. Peter**, and **M. Sperl**, Calibration of the Dust Impact Monitor DIM onboard Rosetta/Philae, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012. (Oral).
- N. Krupp**, Jupiter's plasma environment, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012, invited. (Oral).
- N. Krupp**, **E. Roussos**, **D. G. Mitchell**, and **K. K. Khurana**, Energetic particle observations during the three Cassini Dione encounters compared with other icy moon flybys, Cassini MAPS workshop, University of Cologne, March 28-30, 2012. (Oral).
- N. Krupp**, **E. Roussos**, **C. Paranicas**, **D. G. Mitchell**, **S. M. Krimigis**, and **K. K. Khurana**, The magnetospheric interaction of Dione in the view of energetic particles: Cassini MIMI/LEMMS results during the encounters D1-D3, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.
- N. Krupp**, **E. Roussos**, **H. Tzou**, **E. Kronberg**, **C. Jackman**, and **W.-H. Ip**, Particle injections and substorm-like events at Saturn with a comparison to Jupiter, AOGS 2012, Singapore, August 13-17, 2012, invited. (Oral).
- T. Kuroda**, **H. Sagawa**, **Y. Kasai**, **P. Hartogh**, **J. Urban**, **H. Nakagawa**, and **Y. Kasaba**, Scientific Targets of the Mars Sub-millimetre Sounder FIRE, AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Oral). [Online]
- A. Lagg**, Advances in measuring the chromospheric magnetic field using the He 10830 triplet, 1st Sino-German Symposium on Solar Physics, Nanjing, China, Oct 15-19, 2012. (Oral).
- J. Langfellner**, Applications of improved inversions to SDO observations, CRC 963 Retreat, Waldhotel Berghof, Luisenthal (Thüringen), September 11, 2012. (Oral).
- J. Langfellner**, Probing solar convection with helioseismology, IMPRS Evaluation, MPS Katlenburg-Lindau, June 19, 2012. (Oral).

- J. Langfellner**, Probing solar convection with helioseismology, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- L. M. Lara, E. Lellouch, R. Moreno, R. Courtin, P. Hartogh, and M. Rengel**, Photochemical modeling of H₂O in Titan's atmosphere constrained by Herschel Observations, Titan through Time 2, NASA/GSFC, Maryland, USA, April 3-5, 2012. (Oral).
- L. Le Corre, V. Reddy, A. Nathues, A. W. Beck, D. P. O'Brien, H. Sierks, K. J. Becker, B. Denevi, J.-Y. Li, R. Gaskell, E. Palmer, C. T. Russel, and M. J. Gaffey**, Nature of Orange Ejecta Around Oppia and Octavia Craters on Vesta from Dawn Framing Camera, 75th Annual Meteoritical Society Meeting, Cairns, Australia, 2012. (Poster).
- L. Le Corre, V. Reddy, A. Nathues, J.-Y. Li, B. W. Denevi, B. J. Buratti, H. Sierks, S. E. Schröder, C. M. Pieters, R. Gaskell, K. J. Becker, P. Gutiérrez Marqués, C. T. Russell, and C. A. Raymond**, Vesta Terrains Seen by the Dawn Framing Camera Color Filters, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Oral).
- L. Le Corre, V. Reddy, A. Nathues, D. A. Williams, W. B. Garry, R. A. Yingst, R. Jaumann, T. Roatsch, F. Preusker, C. M. Pieters, C. T. Russell, and C. A. Raymond**, Geologic Mapping of the Av-6 (Gegania) Quadrangle of Asteroid 4 Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- K.-W. Lee, J. Büchner, and A. Otto**, The effect of small guide fields on the stability and bifurcation of collisionless current sheets, DPG Frühjahrstagung, Stuttgart, Mar 12-16, 2012. (Oral).
- K. Li, S. Haaland, A. Eriksson, E. Kronberg, M. Fraenz, and P. Daly**, On the source region of cold ions escaping from Earth's polar caps, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- S. Limaye, H. Svedhem, D. Titov, W. Markiewicz, C. Wilson, and L. Zasova**, Updating the Venus International Reference Atmosphere (VIRA), European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- S. S. Limaye, R. J. Krauss, N. Ignatiev, and W. J. Markiewicz**, Cloud-top altitude from limb views acquired by the Venus Monitoring Camera (VMC) on Venus Express, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- S. S. Limaye, R. J. Krauss, C. Rozoff, and W. J. Markiewicz**, New Insights into the Hemispheric Vortex Structure and the Cloud Level Circulation of Venus Observed by the Venus Monitoring Camera on Venus Express Orbiter, 43rd Lunar and Planetary Science Conference, The Woodlands, TX, USA, March 19-23, 2012. (Poster).
- D. C. Lis, P. Hartogh, D. Bockelée-Morvan, M. de Val-Borro, N. Biver, M. Küppers, M. Emprechtinger, E. A. Bergin, J. Crovisier, M. Rengel, R. Moreno, S. Szutowicz, and G. A. Blake**, Ocean-Like Water in the Jupiter Family Comet 103P/Hartley 2, From Atoms to Pebbles: Herschel's view of Star and Planet Formation, Grenoble, France, March 20-23, 2012. (Oral). [Online]
- D. C. Lis, P. Hartogh, D. Bockelée-Morvan, M. de Val-Borro, N. Biver, M. Küppers, M. Emprechtinger, E. A. Bergin, J. Crovisier, M. Rengel, R. Moreno, S. Szutowicz, G. A. Blake, and H. Team**, Ocean-Like Water in the Jupiter Family Comet 103P/Hartley 2, From atoms to pebbles: Herschel's view of Star and Planet Formation Symposium, Grenoble, France, March 20 - 23, 2012. (Oral). [Online]
- B. Löptien**, Synthetic helioseismic data for Solar Orbiter, ISSI Workshop on "Helioseismology and Dynamics of the Solar Interior", International Space Science Institute (ISSI), Berne, Switzerland, September, 24-28, 2012. (Oral).
- B. Löptien**, Synthetic SO/PHI data for Helioseismology, Fifth Solar Orbiter Workshop, Brugge, Belgium, September 10-14, 2012. (Poster).

- R. Lundin, S. Barabash, M. Yamauchi, H. Nilsson, E. Dubinin, and D. Winningham, Alfvén wave acceleration and ion outflow from Mars, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- O. Maj, R. Bilato, M. Brambilla, and E. Marsch, Numerical modeling of ion distribution functions in presence of ion-cyclotron waves, DPG Frühjahrstagung, Stuttgart, Mar 12-16, 2012. (Oral).
- U. Mall, The moon after Chandrayaan-1, none, Institute of Geological Sciences, Warsaw, Poland, April 4, 2012, invited Lecture. (Oral).
- U. Mall, R. Bugiolacchi, M. Bhatt, and the SIR-2 Team, Mineral composition determination of the lunar crust with the SIR-2 instrument on Chandrayaan-1, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012, invited talk. (Oral).
- W. J. Markiewicz, E. Petrova, O. Shalygina, M. Almeida, D. V. Titov, S. S. Limaye, and N. Ignatiev, Venus glory and the unknown uv absorber, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- W. J. Markiewicz, E. Petrova, O. Shalygina, M. Almeida, D. V. Titov, S. S. Limaye, and N. Ignatiev, Venus Glory and the Unknown UV Absorber, 43rd Lunar and Planetary Science Conference, The Woodlands, TX, USA, March 19-23, 2012. (Poster).
- E. Marsch, Plasma turbulence and kinetic processes in the solar corona and wind, ISSI Workshop on Microphysics of Cosmic Plasmas, Bern, Switzerland, April 16-20, 2012. (Oral).
- E. Marsch and S. Bourouaine, Velocity-space diffusion of solar wind protons in oblique waves and weak turbulence, DPG Frühjahrstagung, Stuttgart, Mar 12-16, 2012. (Oral).
- A. S. Medvedev and E. Yigit, Heating and cooling of the Martian atmosphere by gravity waves, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral). [Online]
- D. W. Mittlefehldt, A. W. Beck, E. Ammannito, U. Carsenty, M. C. De Sanctis, L. Le Corre, T. J. McCoy, V. Reddy, and S. E. Schröder, Geologic Structures in Crater Walls on Vesta, 75th Annual Meeting of the Meteoritical Society, Cairns, Australia, August 12-17, 2012. (Oral).
- R. Moreno, E. Lellouch, P. Hartogh, T. Cavalie, R. Courtin, H. Feuchtgruber, C. Jarchow, L. Lara, G. Orton, M. Rengel, and S. Vinatier, Probing the atmospheres of Uranus, Neptune and Titan with Herschel observations of the CH₄(J=6-5) transition, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Oral).
- R. Moreno, E. Lellouch, L. M. Lara, R. Courtin, P. Hartogh, and M. Rengel, Observations of H₂O in Titan's atmosphere with Herschel, Titan through Time 2, NASA/GSFC, Maryland, USA, April 3-5, 2012. (Oral).
- D. Morgan, D. Gurnett, F. Duru, E. Dubinin, M. Fraenz, H. Opgenoorth, P. Withers, I. Mitrofanov, and J. Plaut, Flare Effects in Mars Ionosphere Observed by Mars Express Topside Sounding, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- P. A. Muñoz, K.-W. Lee, and J. Büchner, Effects of a guide field on the stability and non-linear evolution of a Harris current sheet, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- P. A. Muñoz, K.-W. Lee, and J. Büchner, Spontaneous Bifurcation Of Harris Current Sheets In The Presence Of A Current-Directed Magnetic Guide Field, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012, invited. (Poster).
- K. Nagashima, L. Gizon, A. Birch, and B. Löptien, Understanding helioseismic observables, Progress in Physics of the Sun and Stars: A New Era in Helio- and Asteroseismology, Hakone, Japan, November 27, 2012. (Oral).

- A. Nathues, L. Le Corre, V. Reddy, M. Hoffmann, and the Dawn Science Team**, Identification of Vesta Surface Units with Principal Component Analysis by Using Dawn Framing Camera Imagery, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- D. A. Newnham, P. J. Espy, M. A. Clilverd, D. J. Maxfield, P. Hartogh, K. Holmén, S. Blindheim, and R. B. Horne**, High time resolution observations of the polar stratosphere and mesosphere using a ground-based 230-250 GHz microwave radiometer, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral). [Online]
- D. A. Newnham, P. J. Espy, M. A. Clilverd, C. J. Rodger, A. Seppälä, D. J. Maxfield, P. Hartogh, K. Holmén, and R. B. Horne**, Observations of nitric oxide in the Antarctic middle atmosphere during recurrent geomagnetic storms, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster). [Online]
- T. Nordheim, K. P. Hand, C. Paranicas, P. Kollmann, G. H. Jones, A. J. Coates, and N. Krupp**, Surface radiation environment of Saturn's icy moon Mimas, ESLAB Symposium on Formation and Evolution of Moons, European Space Agency, ESTEC, Noordwijk, NL, June 25-28, 2012. (Oral).
- T. Nordheim, K. P. Hand, C. Paranicas, P. Kollmann, G. H. Jones, A. J. Coates, and N. Krupp**, Surface radiation environment of Saturn's icy moon Mimas, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- T. Nordheim, G. H. Jones, A. J. Coates, J. S. Leisner, W. S. Kurth, K. K. Khurana, E. Roussos, N. Krupp, and F. Crary**, Surface charging on small bodies: Likely detection at Saturn's icy moon Hyperion, Cassini MAPS workshop, University of Cologne, March 28-30, 2012. (Oral).
- D. P. O'Brien, S. Marchi, P. Schenk, D. W. Mittlefehldt, R. Jaumann, E. Ammannito, D. L. Buczkowski, M. C. de Sanctis, G. Filacchione, R. Gaskell, M. Hoffmann, S. Joy, L. Le Corre, J. Y. Li, A. Nathues, C. Polanskey, F. Preusker, M. Rayman, C. A. Raymond, V. Reddy, T. Roatsch, C. T. Russell, D. Turrini, J. B. Vincent, and D. S. Team**, The Impact History of Vesta: New Views from the Dawn Mission, Workshop on the Early Solar System Bombardment II, Houston, Texas, February 1-3, 2012. (Oral).
- N. Ookay, J.-B. Vincent, H. Sierks, K. Wünnemann, and D. Elbeshausen**, Hydrocode modeling of the largest impact crater on Lutetia, a key to the inner structure of the asteroid, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- N. Ookay, J.-B. Vincent, H. Sierks, K. Wünnemann, and D. Elbeshausen**, Hydrocode modeling of the largest impact crater on Lutetia, a key to the inner structure of the asteroid, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Poster).
- N. Ookay, J.-B. Vincent, H. Sierks, K. Wünnemann, and D. Elbeshausen**, Impacts on a Differentiated Lutetia, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- G. Orton, H. Feuchtgruber, L. Fletcher, E. Lellouch, R. Moreno, F. Billebaud, T. Cavalie, L. Decin, M. Dobrijevic, T. Encrenaz, P. Hartogh, C. Jarchow, L. M. Lara, and J. Liu**, Examining Rotational Variability in the Upper Tropospheres and Lower Stratospheres of Uranus and Neptune from Herschel PACS OT1 Observations: Implications for the Stability of Temperature and Compositional Structure, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral). [Online]
- G. Orton, L. Fletcher, F. H., E. Lellouch, R. Moreno, T. Encrenaz, P. Hartogh, C. Jarchow, B. Swinyard, J. Moses, M. Burgdorf, A. Mainzer, M. Hofstadter, G. Sandell, and C. Darren Dowell**, Towards Standard Models for Temperatures and Gas Abundances in Uranus and Neptune: The Legacy of ISO, Spitzer, Herschel and Ground-Based Infrared to Millimeter Observations, AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Oral). [Online]
- A. Pál, C. Kiss, T. G. Müller, E. Vilenius, M. Rengel, M. Mommert, P. Santos-Sanz, E. Lellouch, and J. Stansberry**, Surface Properties of Extreme TNOs Based on Herschel/PACS measurements: The

Case of Sedna and 2010 EK139, Asteroids, Comets, Meteors, Niigata, Japan, May 16-20, 2012. (Oral).

E. Papini, Propagating linear waves in a convectively unstable solar model: a perturbative approach, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).

J. Park, D. Innes, R. Bucik, and Y. Moon, The study on source regions of solar energetic particles detected by widely separated multiple spacecraft, AGU Fall Meeting, San Francisco, USA, Dec 3-7, 2012. (Poster).

H. Peter, EUV spectro-polarimetry: Forward modeling and diagnostics, Workshop on Coronal Magnetism, Boulder, CO, USA, May 21-23, 2012, (Invited). (Oral).

H. Peter, Magnetic field and plasma in the atmospheres of the Sun and stars, UK-Germany National Astronomy Meeting NAM2012, Manchester, March 27-30, 2012, (Invited). (Oral).

H. Peter and S. Bingert, Coronal loops with constant cross section reproduced in 3D MHD models, SDO-4/IRIS/Hinode workshop, Monterey, CA, March 12-16, 2012, (Oral).

A. Piccialli, D. Titov, H. Svedhem, and W. J. Markiewicz, Characterization of gravity waves at Venus cloud top from the Venus Monitoring Camera images, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).

A. Piccialli, D. V. Titov, H. Svedhem, and W. J. Markiewicz, Gravity Waves in Venus Mesosphere Observed by the Venus Monitoring Camera (VMC/VEx), and Comparison to Earth and Mars, Comparative Climatology of Terrestrial Planets, Boulder, Colorado, USA, June 25-28, 2012. (Poster).

J. Piqueras, K. Heerlein, S. Werner, R. Enge, U. Schühle, J. Woch, T. De-Ridder, G. Meynants, B. Wolfs, G. Lepage, and W. Diels, CMOS sensor and camera for the PHI instrument on board Solar Orbiter: evaluation of the radiation tolerance, SPIE Astronomical Telescopes + Instrumentation 2012, Amsterdam, July 1-6, 2012. (Oral).

J. Piqueras, K. Heerlein, S. Werner, R. Enge, M. Sperling, U. Schuehle, J. Woch, and H. Michalik, Assessing effects of space radiation on the image sensor for SO/PHI, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).

V. Reddy, L. Le Corre, T. J. McCoy, A. Nathues, R. G. Mayne, J. Sunshine, M. J. Gaffey, K. J. Becker, and E. A. Cloutis, Testing the Magma Ocean Model Using Distribution of Chromium on Vesta's Surface from Dawn Framing Camera Color Images, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).

V. Reddy, L. Le Corre, A. Nathues, E. A. Cloutis, M. J. Gaffey, K. J. Becker, T. B. McCord, J.-P. Combe, E. Palomba, D. T. Blewett, H. Y. McSween, C. A. Raymond, and D. Williams, Investigating the Origin of Dark Material on Vesta Using Dawn Framing Camera Testing the Magma Ocean Model Using Distribution of Chromium on Vesta's Surface from Dawn Framing Camera Color Images, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Oral).

V. Reddy, L. Le Corre, A. Nathues, D. W. Mittlefehldt, E. A. Cloutis, D. P. O'Brien, D. D. Durda, W. F. Bottke, D. Buczowski, J. E. C. Scully, E. M. Palmer, H. Sierks, P. J. Mann, K. J. Becker, A. W. Beck, J.-Y. Li, R. Gaskell, C. T. Russell, M. J. Gaffey, H. Y. McSween, T. B. McCord, J.-P. Combe, and D. Blewett, Origin of Dark Material on Vesta from Dawn FC Data: Remnant Carbonaceous Chondrite Impactors, 75th Annual Meteoritical Society Meeting, Cairns, Australia, 2012.

V. Reddy, L. Le Corre, A. Nathues, D. A. Williams, W. B. Garry, R. A. Yingst, R. Jaumann, T. Roatsch, F. Preusker, C. M. Pieters, C. T. Russell, and C. A. Raymond, Geologic Mapping of the Av-7 (Lucaria) Quadrangle of Asteroid (4) Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).

- V. Reddy**, J.-Y. Li, **L. Le Corre**, C. T. Russell, J. E. C. Scully, K. J. Becker, R. Park, R. Gaskell, M. J. Gaffey, and **A. Nathues**, Comparison Of Dawn, Hubble Space Telescope, And Ground-based Observations Of Vesta: What We Learned So Far?, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Oral).
- M. Rengel**, Lessons from observations of key atmospheric gases in Venus' and Titan's atmospheres, Characterizing & Modeling Extrasolar Planetary Atmospheres - Theory & Observation, MPIA, Heidelberg, July 16 - 19, 2012. (Oral).
- M. Rengel**, Observing our Solar System with the eyes of Herschel, Cosmology Seminar Series, FSU Physics Department, The Florida State University, Feb 2, 2012, invited Talk as guest lecturer— live video streaming. (Oral).
- M. Rengel**, **P. Hartogh**, **H. Sagawa**, and **R. Güsten**, APEX observations of the atmospheres of Titan and Venus, Science with the Atacama Pathfinder Experiment (APEX), Ringberg Castle, Tegernsee, 2012. (Oral).
- M. Rengel**, **P. Hartogh**, **H. Sagawa**, and **R. Güsten**, Recent Sub-millimeter Heterodyne Observations of CO in Venus' Mesosphere obtained with HHSMT and APEX/FLASH, AOGS - AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Oral).
- M. Rengel**, **P. Hartogh**, **H. Sagawa**, **C. Jarchow**, and **R. Güsten**, Observations of Key Atmospheric Gases in Venus and Titan's atmospheres, Planet Formation and Evolution 2012, 8th Conference on Formation and Evolution of Planetary Systems, Munich, Germany, September 3-7, 2012. (Oral).
- M. Rengel**, **T. Müller**, **E. Lellouch**, **J. Stansberry**, and the 'TNOs are Cool' Team, Science Highlights from the 'TNOs are Cool' Open Time Key Program with Herschel, AOGS - AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Oral).
- M. Rengel**, **H. Sagawa**, **P. Hartogh**, **E. Lellouch**, **H. Feuchtgruber**, **R. Moreno**, **C. Jarchow**, **L. Lara**, **R. Courtin**, and **J. Cernicharo**, C₂H₂ on Titan as seen by Herschel/PACS, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Poster).
- L. Rezac**, **P. Hartogh**, **M. de Val-Borro**, **C. Jarchow**, and **M. Rengel**, Modeling of Rotational Lines of Water Vapor in the Tenuous Atmospheres of Galilean Moons, AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Oral). [Online]
- L. Rezac**, **P. Hartogh**, **M. de Val-Borro**, **M. Rengel**, and **C. Jarchow**, Molecular Composition of Comet C/2009 P1 (Garradd) from millimetre Observations, AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Poster). [Online]
- L. Rezac**, **P. Hartogh**, and **C. Jarchow**, Importance of non-LTE in molecular bands for emission and absorption spectra: perspective for transit spectroscopy of exoplanets, Characterizing & Modeling Extrasolar Planetary Atmospheres Theory & Observation, Heidelberg, July 16-19, 2012. (Poster).
- T. L. Riethmüller** and **S. K. Solanki**, Comparison of photospheric bright points between SUNRISE observations and MHD simulations, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- A. V. Rodin**, **A. S. Medvedev**, and **N. A. Evdokimova**, The role of vertically propagating stationary waves in the Martian atmospheric water cycle, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral). [Online]
- E. Roussos**, Temporal variability of Saturn's radiation belts after the solar minimum, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).
- E. Roussos**, **M. Andriopoulou**, **N. Krupp**, **C. Paranicas**, **M. Thomsen**, **K. Stamatios**, and **M. Dougherty**, Numerical tracing of energetic electron microsignatures: methods and applications, AGU Fall Meeting, San Francisco, USA, December 3-7, 2012. (Poster).

E. Roussos, P. Kollmann, N. Krupp, C. Paranicas, D. G. Mitchell, S. M. Krimigis, A. Persoon, D. Gurnett, W. S. Kurth, H. Kriegel, S. Simon, M. Holmberg, J.-E. Wahlund, K. K. Khurana, and G. H. Jones, Energetic electron observations of Rhea's magnetospheric interaction, Cassini MAPS workshop, University of Cologne, Cologne, Germany, March 28-30, 2012. (Oral).

E. Roussos, P. Kollmann, N. Krupp, C. Paranicas, A. Persoon, H. Kriegel, S. Simon, K. Khurana, S. M. Krimigis, and D. G. Mitchell, Rhea's magnetospheric interaction: energetic electron observations by Cassini MIMI/LEMMS, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.

E. Roussos, N. Krupp, M. Andriopoulou, P. Kollmann, A. Kotova, C. Paranicas, M. F. Thomsen, and S. M. Krimigis, Numerical simulation of energetic electron microsignature drifts at Saturn: methods and applications, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).

E. Roussos, N. Krupp, P. Kollmann, C. Paranicas, C. S. Arridge, D. G. Mitchell, and S. M. Krimigis, The variable extent of Saturn's electron radiation belt, AGU Fall Meeting, San Francisco, USA, December 3-7, 2012. (Poster).

J. Sanchez, V. Reddy, A. Nathues, E. Cloutis, P. Mann, and H. Hiesinger, Phase reddening on near-Earth asteroids: Implications for mineralogical analysis, taxonomic classification and space weathering, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).

J. C. Santos, J. Büchner, and A. Otto, MHD simulations of energy storage, transport and release in the solar corona, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).

K. Schindler, A. Nathues, G. Tomasch, A. Krabbe, and J. Wolf, Detector Characterization and Study Activities for Future VIS-NIR Spectrometers, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).

B. E. Schmidt, K. M. Soderlund, D. D. Blankenship, and J. Wicht, European Ocean Dynamics Inferred from Surface Geology, American Geophysical Union General Assembly, San Francisco, USA, Dec 3-7, 2012. (Oral).

D. Schmitt, Basic Numerical Methods in Hydrodynamics (Lecture), International Advanced Summer School on Fluid Mechanics and Magnetohydrodynamics, Institute of Theoretical and Applied Physics, Turunc, Turkey, September 18-29, 2012. (Oral).

U. Schühle, Contamination and cleanliness of UV and EUV space instruments, SRI Satellite Workshop: Carbon Contamination of Optics: Causes, Characterization and In-situ Treatments, Soleil Synchrotron Facility, Saint Aubin, France, 07-17, 2012. (Oral).

U. Schühle, Space degradation and cleanliness of VUV/EUV solar spectrographs, STCE Workshop: On-orbit degradation of solar and space weather instruments, Royal Observatory of Belgium, Brussels, 05-03, 2012. (Oral).

H. Schunker, Asteroseismology and stellar activity cycles of solar-like stars, 2nd BCool workshop, Göttingen, Germany, 15-19 October, 2012, invited. [Online]

H. Schunker, Prospects for constraining sunspot models using helioseismology, The Modern Era of Helio- and Asteroseismology, Obergurgl, Austria, May 20-25, 2012, contributed. (Oral).

H. Schunker, Seismology of magnetic activity, Opening Symposium CRC 963, Astrophysical Flow Instabilities and Turbulence, Georg-August-Universität Göttingen, February 9-10, 2012, invited. (Oral).

H. Schunker, Seismology of magnetic activity, Opening Symposium CRC 963 Astrophysical Flow Instabilities and Turbulence, University of Göttingen, Germany, February 9-10, 2012, invited. (Oral).

- M. Schüssler**, Magneto-convection & surface magnetism, ISSI workshop "Helioseismology and dynamics of the solar interior", Bern, Switzerland, September 24-28, 2012, invited. (Oral).
- M. Schüssler**, Small-scale vortices and shocks in the solar atmosphere (invited), DPG Frühjahrstagung, Stuttgart, Mar 12-16, 2012. (Oral).
- M. Schüssler**, Solar (and a little bit of stellar) surface magnetism, Second Bcool workshop, Göttingen, October 15-19, 2012, (invited).
- M. Schüssler**, Solar magneto-convection, IAU Symposium 294, Beijing, China, August 27-31, 2012, invited. (Oral).
- R. Schwenn**, Coronal Mass Ejections the Drivers of Space Weather, TIEMS Conference "Space Weather and Challenges for Modern Society", Oslo, Norway, Oct 22-24, 2012, invited Review.
- J. Scully, C. T. Russell, A. Yin, D. L. Buczowski, D. A. Williams, H. Hiesinger, W. B. Garry, R. A. Yingst, D. T. Blewett, T. Roatsch, R. W. Gaskell, F. Preusker, L. Le Corre, E. Ammanito, R. Jaumann, C. M. Pieters, and C. A. Raymond**, Exploration of Saturnalia Fossa and Associated Structures in Vesta's Northern Hemisphere, 44th annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Reno, Nevada, USA, October 14-19, 2012. (Oral).
- J. E. C. Scully, C. T. Russell, A. Yin, D. A. Williams, D. T. Blewett, D. L. Buczowski, E. Ammannito, T. Roatsch, F. Preusker, L. Le Corre, R. A. Yingst, W. B. Garry, R. Jaumann, C. M. Pieters, and C. A. Raymond**, Geologic Mapping of the Av-4 Domitia Quadrangle of Asteroid 4 Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- N. Sergis, S. Krimigis, M. Thomsen, E. Roelof, D. Mitchell, D. Hamilton, N. Krupp, M. Dougherty, and F. Crary**, Seven Years (2004-2011) of Cassini Measurements Reveal Strong Local Time Asymmetry of the Saturnian Ring Current, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012.
- N. Sergis, S. M. Krimigis, N. Krupp, A. Masters, C. M. Jackman, M. F. Thomsen, and M. K. Dougherty**, Magnetospheric energetic ions as pressure and plasma β regulator in the Saturnian magnetosheath, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- J. Sethunadh, A. Medvedev, and P. Hartogh**, General circulation modeling of the Jupiter stratosphere, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Poster).
- J. Sethunadh, A. Medvedev, and P. Hartogh**, General Circulation Modeling of the stratosphere of Jupiter, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- J. A. Sethunadh, A. Medvedev, and P. Hartogh**, General Circulation Modeling of the stratosphere of Jupiter, AOGS AGU (WPGM) Joint Assembly, Singapore, August 13-17, 2012. (Oral). [Online]
- E. V. Shalygin, A. T. Basilevsky, D. V. Titov, and W. J. Markiewicz**, Study of the Venus surface and lower atmosphere using VMC images, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- E. V. Shalygin, A. T. Basilevsky, D. V. Titov, W. J. Markiewicz, F. Scholten, Th. Roatsch, M. A. Kreslavsky, L. V. Moroz, and N. I. Ignatiev**, Geologic interpretation of the near-infrared images of area SW of Beta Regio taken by the Venus Monitoring Camera, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- H. Smith, E. Marsch, and P. Helander**, Electron transport in the fast solar wind, DPG Frühjahrstagung, Stuttgart, Mar 12-16, 2012. (Oral).
- S. Solanki**, Die Sonne, unser Leben spendender Stern, Naturwissenschaftliche Gesellschaft Winterthur, Winterthur, Switzerland, January 27, 2012. (Oral).
- S. Solanki**, Die Sonne, unser Leben spendender Stern, Littrow Lectures, Austrian Academy of Science, Vienna, Austria, January 24-26, 2012. (Oral).

- S. Solanki**, PhI on Solar Orbiter, From the heliosphere into the Sun, Bad Honnef, January 31 - February 2, 2012. (Oral).
- T. Stahn and L. Gizon**, Fitting solar-like oscillations: the pros and cons of a global parameterization of the power spectrum, 5th KASC workshop, Balatonalmadi, Hungary, June 18-22, 2012. (Oral).
- H. Steininger and W. Goetz**, Pyrolysis-GC-MS analysis of samples collected during AMASE-2011, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- H. Steininger and W. Goetz**, Pyrolysis-GC-MS Analysis of Sediments for ExoMars 2018, Lunar and Planetary Science Conference (LPSC XLIII), Houston, Texas, USA, March 19-23, 2012. (Poster). [Online]
- H. Steininger, E. Steinmetz, D. K. Martin, B. Lustremer, F. Goesmann, W. B. Brinckerhoff, M. P. R., F. Raulin, R. J. Cotter, and C. Szopa**, Mars Organic Molecule Analyzer (MOMA) Onboard ExoMars 2018, International Workshop on Instrumentation for Planetary Missions (2012), Goddard Space Flight Center, Washington DC, October 10-12, 2012. (Oral). [Online]
- P. Strub, V. J. Sterken, H. Krüger, and E. Grün**, Dynamics of Interstellar Dust in the Solar System: From In-Situ Measurements to Models, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- S. Szutowicz, N. Biver, D. Bockelée-Morvan, J. Crovisier, M. de Val-Borro, R. Moreno, P. Hartogh, M. Rengel, D. C. Lis, M. Küppers, and H. Team**, Comet 10P/Tempel 2 Outgassing Observed with Herschel Space Observatory, Asteroids, Comets, Meteors, Niigata, Japan, May 16-20, 2012. (Poster).
- W. L. Teh, R. Nakamura, M. Fujimoto, and E. Kronberg**, Observations of electron acceleration within reconnection ion diffusion region, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- L. Teriaca, M. Caldwell, A. Fludra, and U. Schühle**, Predicted SPICE spectra of representative solar features, 5th Solar Orbiter Workshop, Bruges, September 10 - 14, 2012. (Poster).
- J. Thalmann, T. Wiegmann, and S. Tiwari**, Comparing nonlinear force-free field modeling based on different data sources, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- J. K. Thalmann**, The magnetic field in the outer solar atmosphere - The difficulty of measuring and the ability of modeling, Colloquium (Solar Physics Seminar), IGAM, University of Graz, Austria, Mar 20, 2012. (Oral).
- J. K. Thalmann, A. Pietarila, X. Sun, and T. Wiegmann**, Comparing force-free reconstructions of the solar corona based on SDO/HMI and SOLIS/VSM magnetograms, UK-Germany National Astronomy Meeting 2012, Manchester, UK, Mar 30, 2012. (Oral).
- G. Thangjam, L. L. Corre, V. Reddy, A. Nathues, M. Hoffmann, and H. Sierks**, Comparative spectral analysis of HED meteorites and Dawn Framing Camera data, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- G. Thuillier, S. Melo, J. Lean, N. Krivova, C. Bolduc, A. Shapiro, P. Charbonneau, W. Schmutz, and D. Bolsée**, Analysis of Different Solar Spectral Irradiance Reconstructions, SOLARIS Science Meeting 2012, Annapolis, USA, September 18-19, 2012. (Oral).
- D. Titov, H. Svedhem, W. J. Markiewicz, and G. Piccioni**, Structure, Morphology and Radiative Effects of the Clouds Derived from Venus Express Observations, Comparative Climatology of Terrestrial Planets, Boulder, CO, USA, June 25-28, 2012. (Poster). [Online]
- D. Titov, H. Svedhem, W. J. Markiewicz, and C. Wilson**, Cloud morphology and dynamics from the Venus Express observations, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).

- C. Tubiana, C. Snodgrass, D. Bramich, H. Bönhardt, and L. Barrera**, 67P/Churyumov-Gerasimenko: start of activity and heliocentric light curve, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- M. Uslenghi, S. Incorvaia, M. Fiorini, U. Schühle, L. Teriaca, E. Wilkinson, O. H. W. Siegmund, E. Antonucci, S. Fineschi, G. Naletto, G. Nicolini, G. Nicolosi, M. Romoli, and M. Focardi**, A prototype of the UV detector for METIS on Solar Orbiter, Space Telescopes and Instrumentation 2012: Ultraviolet to Gamma Ray, Amsterdam, July 1 - 6, 2012.
- T. van Wettum, S. Bingert, and H. Peter**, Response of the corona to different heating mechanisms, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- V. M. Vasyliūnas**, Atmosphere/ionosphere/magnetosphere interactions: An unconventional approach to the neutral-wind dynamo problem, Oberseminar Extraterrestrische Physik, Institut für Geophysik und Meteorologie der Universität zu Köln, Köln, May 15, 2012. (Oral).
- V. M. Vasyliūnas**, Boundary conditions on magnetospheric convection at the dip equator and penetrating electric fields, 13th International Symposium on Equatorial Aeronomy, Paracas, Perú, March 12-16, 2012. (Oral).
- V. M. Vasyliūnas**, How do horizontal neutral winds create vertical plasma flows?, AGU Fall Meeting, San Francisco, California, U.S.A., December 3-7, 2012. (Poster).
- V. M. Vasyliūnas**, Mechanical origin of ionospheric neutral-wind-dynamo currents, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- V. M. Vasyliūnas**, Possible atmospheric origin of magnetospheric periodicities at Saturn and the neutral-wind dynamo problem, Cassini MAPS workshop, University of Cologne, March 28-30, 2012. (Oral).
- V. M. Vasyliūnas**, Role of the solar wind in the structure and dynamics of magnetospheres, 13th International Solar Wind Conference, Big Island, Hawaii, USA, June 18-22, 2012, invited. (Oral).
- V. M. Vasyliūnas**, The physical basis of ionospheric electrodynamics, Seminar, Instituto Nacional de Pesquisas Espaciais, São José dos Campos, Brazil, March 7, 2012. (Oral).
- V. M. Vasyliūnas**, When you know How, you know Who: search for perpetrator of substorm onset, 11th International Conference on Substorms, Lüneburg, Germany, September 2-7, 2012. (Oral).
- Y. Vernisse, U. Motschmann, and K. H. Glassmeier**, Planetary interaction with stellar wind: transition by magnetic dipole variation, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- D. Verscharen and E. Marsch**, Large-amplitude Alfvén waves and their coupling to compressive modes in multi-fluid plasmas, 511. W.&E.-Heraeus seminar "From the Heliosphere into the Sun - Sailing against the Wind", Bad Honnef, Feb 01-03, 2012. (Poster).
- D. Verscharen, E. Marsch, U. Motschmann, and J. Müller**, The anisotropic cascade of solar wind turbulence beyond MHD scales in two-dimensional hybrid simulations, 511. W.&E.-Heraeus seminar "From the Heliosphere into the Sun - Sailing against the Wind", Bad Honnef, Feb 01-03, 2012. (Oral).
- J.-B. Vincent, H. Bönhardt, L. M. Lara, G. P. Tozzi, Z. Y. Lin, and H. Sierks**, Dust jet activity of comet 67P/Churyumov-Gerasimenko from 2003 to 2015, ACM, Niigata, Japan, May 16-20, 2012. (Oral).
- J.-B. Vincent, M. Hoffmann, A. Nathues, H. Sierks, R. W. Gaskell, S. Marchi, D. O'Brien, P. Schenk, M. Fulchignoni, H. U. Keller, C. Raymond, and M. Sykes**, Crater depth-to-diameter ratio and surface properties of (4)Vesta, LPSC, The Woodlands, Texas, March 19-23, 2012. (Oral)
- J.-B. Vincent, N. Ockay, and H. Sierks**, Do impactors on comets survive, buried in the nucleus ?, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Poster).

- J. B. Vincent, N. Oklay, and H. Sierks**, Do impactors on comets survive, buried in the nucleus ?, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Poster).
- J.-B. Vincent, H. Sierks, M. Rose, and Y. Skorov**, 3D modeling of cometary dust jets, from the nucleus surface to infinity, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012, (keynote talk). (Oral).
- B. M. Walsh, S. E. Haaland, P. W. Daly, E. A. Kronberg, and T. A. Fritz**, Loss of energetic particles from the Earth's Magnetosphere, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- Y. Wei, M. Fraenz, E. Dubinin, A. Coates, S. Barabash, and T.-L. Zhang**, A comet-like ionosphere at Venus in tenuous solar wind, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Oral).
- Y. Wei, M. Fraenz, E. Dubinin, T. L. Zhang, W. Wan, S. Barabash, J. Woch, and R. Lundin**, O⁺ pickup ions outside of Venus' bow shock: Venus Express observation, European Planetary Science Congress, Madrid, Spain, Sep 23-28, 2012. (Oral).
- O. L. White, R. A. Yingst, D. Berman, A. Frigeri, R. Jaumann, L. Le Corre, S. Mest, C. M. Pieters, F. Preusker, C. A. Raymond, V. Reddy, T. Roatsch, C. T. Russell, P. M. Schenk, and N. Schmedemann**, Geologic Mapping of the AV-15 Rheasilvia Quadrangle of Asteroid 4 Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- J. Wicht**, Dynamos driven by differential rotation, European Geosciences Union General Assembly, Vienna, Austria, Apr 22-27, 2012. (Poster).
- J. Wicht**, Flow and magnetic instabilities in the spherical Couette system, GDR Dynamo and MHD Days 2012, Nice, France, Oct 1-4, 2012. (Poster).
- J. Wicht, K. Hori, and W. Dietrich**, Was the early geodynamo different from today's?, 4. Alliance Week, Helmholtz Alliance Planetary Evolution and Life, Berlin-Adlershof, Berlin, Feb 20-24, 2012. (Oral).
- J. Wicht and A. Manglik**, Proper Lower Boundary Conditions for Geodynamo Models, American Geophysical Union General Assembly, San Francisco, USA, Dec 3-7, 2012. (Poster).
- T. Wiegelmann**, What is the best way to use the chromospheric field information in coronal field extrapolation?, Solar-C science meeting, St. Andrews, UK, August 13, 2012, invited. (Oral).
- T. Wiegelmann and E. Marsch**, Solar Orbiter science goals with remote sensing instruments, UK-Germany National Astronomy Meeting NAM2012, Manchester, March 27-30, 2012, invited. (Oral).
- T. Wiegelmann, J. K. Thalmann, B. Inhester, T. Tadesse, X. Sun, and J. T. Hoeksema**, Active region modelling with SDO/HMI and AIA, Hinode 6, St. Andrews, UK, August 14-17, 2012. (Poster).
- T. Wiegelmann, J. K. Thalmann, B. Inhester, T. Tadesse, X. Sun, and J. T. Hoeksema**, Nonlinear force-free coronal magnetic field modelling with SDO, UK-Germany National Astronomy Meeting NAM2012, Manchester, March 27-30, 2012. (Poster).
- D. A. Williams, P. M. Schenk, R. Jaumann, D. L. Buczkowski, T. B. McCord, R. A. Yingst, H. Hiesinger, W. B. Garry, J.-P. Combe, C. M. Pieters, A. Nathues, L. Le Corre, M. Hoffmann, V. Reddy, T. Roatsch, F. Preusker, S. Marchi, C. T. Russell, C. A. Raymond, G. Neukum, N. Schmedemann, E. Ammannito, and M. C. de Sanctis**, Geologic Mapping of the Av-8 Marcia Quadrangle of Asteroid 4 Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- R. Yadav, T. Gastine, and U. Christensen**, Bridging planets and stars in dynamo models: Plans and preliminary results, Bcool, Goettingen, Oct 15-19, 2012. (Oral).
- R. Yadav, T. Gastine, and U. Christensen**, Scaling relations in dynamos with stress-free boundaries, Rocks'n'Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).

- R. Yadav, T. Gastine, and U. Christensen**, Scaling relations in dynamos with stress-free boundaries, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- S. Yang, J. Büchner, J. c. Santos, and H. Zhang**, Evolution of the relative magnetic helicity: Method and application to a simulated solar corona above an active region, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Oral).
- K. L. Yeo, N. A. Krivova, and S. K. Solanki**, Precise Reconstruction of Solar Irradiance Variations from SDO/HMI Reconstructions, Rocks`n`Stars Conference, Göttingen, Oct 8-11, 2012. (Poster).
- E. Yigit and A. S. Medvedev**, Tropopause to thermosphere coupling by small-scale gravity waves, 39th COSPAR Scientific Assembly, Mysore, India, July 14-22, 2012. (Oral). [Online]
- R. A. Yingst, S. Mest, W. B. Garry, D. A. Williams, D. C. Berman, R. Jaumann, C. M. Pieters, E. Ammannito, D. L. Buczkowski, M. C. de Sanctis, A. Frigeri, L. Le Corre, F. Preusker, C. A. Raymond, V. Reddy, C. T. Russell, T. Roatsch, P. M. Schenk, and the Dawn Team**, A Preliminary Global Geologic Map of Vesta Based on High-Altitude Mapping Orbit Data, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).
- B. L. Young, D. T. Blewett, D. A. Williams, D. P. O'Brien, R. Gaskell, R. A. Yingst, W. B. Garry, D. L. Buczkowski, H. Hiesinger, T. B. McCord, J.-P. Combe, P. M. Schenk, R. Jaumann, C. M. Pieters, A. Nathues, L. Le Corre, M. Hoffmann, V. Reddy, T. Roatsch, F. Preusker, S. Marchi, J. Scully, C. T. Russell, C. A. Raymond, and M. C. de Sanctis**, Geologic Mapping of the Av-3 Caparronia Quadrangle of Asteroid 4 Vesta, 43rd Lunar and Planetary Science Conference, The Woodlands, Texas, March 19-23, 2012. (Poster).

5. Seminare / *Seminars*

Teeseminar und Kolloquium / *Tea Seminar and Colloquium*

Vorträge von Gästen und eingeladenen Wissenschaftlern / *Talks by guests and invited scientists*

Ilya Usoskin (Cosmic Ray Station, University of Oulu, Finland), Cosmic Rays in the Earth's atmosphere, 18 Jan 2012

Ulrich von Kusserow (Bremen, Germany), Public Outreach for Solar Physics, 26 Jan 2012

Nour-Eddine Raouafi (APL, Johns Hopkins University, Laurel, USA) Characteristics of plasma outflows in polar coronal regions, 30 Jan 2012

Emre Isik (Istanbul Kultur University, Turkey), Theoretical models of stellar activity cycles, 2 Feb 2012

Jiansen He (Peking University, Beijing, China), Kinetic scale fluctuations in solar wind turbulence, 9 Feb 2012

Anusha Bhasari (Indian Institute of Astrophysics, Bangalore, India), Scattering polarization in spectral lines and methods to solve the polarized radiative transfer equation, 15 Feb 2012

Hui Tian (High Altitude Observatory, Boulder, USA), Ubiquitous high-speed coronal outflows revealed by both spectroscopic and imaging observations, 16 Feb 2012

Eberhard Wiehr (Georg-August Universität Göttingen, Germany), Do Helium ions surf on Alfvén waves through prominences?, 20 Feb 2012

Dr. Manuela Sornig (University of Cologne, Germany), Infrared heterodyne investigations probing planetary atmospheres, 28 Feb 2012

Kyoung-Sun Lee (Kyung Hee University, Yongin, Republic of Korea), Observational study of small-scale reconnection features using imaging spectroscopy and stereoscopy, 1 Mar 2012

Alex Khan (Università degli Studi di Firenze, Italy), Spectropolarimetry of the solar corona, 2 Mar 2012

Dr. Aaron Birch (Max-Planck-Institut fuer Sonnensystemforschung, Katlenburg-Lindau, Germany), Local Helioseismology of Solar Activity, 7 Mar 2012

Dr. Elena Grigorenko (Space Research Institute, Russian Academy of Sciences, Moscow, Russia), Non-adiabatic ion acceleration in the Earth magnetotail and its PSBL manifestations, 14 Mar 2012

Dipankar Banerjee (Centre for Plasma Astrophysics, Leuven and Indian Institute of Astrophysics, Bangalore, India), Propagating Disturbances in open magnetic structures of the Sun, 20 Mar 2012

Dr. Caitriona Jackman (University College of London, UK), Comparative Planetary Magnetotails, 21 Mar 2012

Christoph Kuckein (Instituto de Astrofísica de Canarias (IAC), Tenerife, Spain), An active region filament studied simultaneously in the photosphere and chromosphere, 13 Apr 2012

Hongqi Zhang (National Astronomical Observatories, Chinese Academy of Sciences, Beijing), Helicity from solar observations, 20 Apr 2012

Dr. Sanjay S. Limaye (University of Wisconsin), Venus Transits, 20 Apr 2012

Dipankar Banerjee (Centre for Plasma Astrophysics, Leuven and Indian Institute of Astrophysics, Bangalore), Dynamics of Coronal Bright Points, 2 Mai 2012

Prof. Dr. Jürgen Blum (Institut für Geophysik und extraterrestrische Physik, TU Braunschweig), Building planets in the lab, 9 May 2012

- Dr. Saskia Hekker** (Astronomical Institute 'Anton Pannekoek', University of Amsterdam), Asteroseismology with Kepler, 16 May 2012
- Dr. Lucas Paganini** (Goddard Center for Astrobiology, NASA GSFC, Greenbelt, USA), High-Dispersion Infrared Observations of Comet C/2009 P1 (Garradd), 24 May 2012
- Yori Fournier** (Leibniz Institute for Astrophysics Potsdam), Global simulations of solar/stellar convection, 4 Jun 2012
- Ed Lee** (Katholieke Universiteit Leuven, Belgium), Suprathermal distributions and particle acceleration in the quiescent solar corona, 4 Jun 2012
- Marcus Gellert** (Leibniz Institute for Astrophysics Potsdam), GATE: Taylor instability in the laboratory and new alpha-experiment, 5 Jul 2012
- Robert Wolf** (Max-Planck-Institut fuer Plasmaphysik, Greifswald), Der Stellarator - ein alternatives Einschlusskonzept fuer ein stationaeres Fusionsplasma, 13 Jul 2012
- Alexander Shapiro** (PMOD/WRC, Davos, Schweiz), Modeling of the solar spectrum and its variability, 19 Jul 2012
- Prof. Dr. Robert Stein** (Michigan State University), Weather on the Sun: Realistic Numerical Simulations of Solar Magneto-Convection, 4 Oct 2012
- Prof. Klaus Jockers** (Max Planck Institute for Solar System Research, Katlenburg-Lindau, Germany), Linear inverse modeling of gas jets on Comet Churyumov-Gerasimenko, a possible tool to locate active spots on the nucleus surface using MIRO and/or OSIRIS data, 9 Nov 2012

Seminar der Sonnengruppe am MPS / *MPS Solar Group Seminar*

Vorträge von Mitgliedern der Sonnengruppe / *Talks by members of the Solar group*

- Suguru Kamio**, Long-term variation of the quiet region corona, 10 Jan 2012
- Gautam Narayan**, Observations of flux emergence in a plage region, 17 Jan 2012
- Thomas Wiegelmann**, Coronal magnetic field modeling with SDO: I. Active Region modeling, 24 Jan 2012
- Judith de Patoul**, Sun's magnetic pole, 07 Feb 2012
- Sven Bingert**, Large scale numerical coronal model above an active region observed by HMI/SDO, 21 Feb 2012
- Jeff Lee**, Current bifurcation in a modified Harris current sheet, 28 Feb 2012
- Julia Thalmann**, A comparison of nonlinear force-free extrapolations based on SDO/HMI and SOLIS/VSM data, 06 Mar 2012
- Alex Feller**, Center-to-limb variation of quiet Sun intensity contrasts as measured from Sunrise, 17 Apr 2012
- Girjesh Gupta**, Spectroscopic observations of propagating disturbances in a polar coronal hole, 24 Apr 2012
- Robert Cameron**, Magnetic flux transport: constraints and a nonlinearity, 12 Jun 2012
- Luca Teriaca**, Spectroscopic observations of Fe XVIII, 26 Jun 2012
- Sanjiv Tiwari**, Depth-dependent Inversion of a Sunspot Observed from Hinode (SOT/SP). I. Inversion Strategy, 03 Jul 2012

Michiel van Noort, Spatially coupled inversion of spectro-polarimetric imaging data, 10 Jul 2012

Seminar der Planetengruppe am MPS / MPS Planetary Group Seminar

Vorträge von Mitgliedern der Planetengruppe / *Talks by members of the Planetary group*

Dr. U. Mall, Dr. R. Bugiolacchi, Megha Batt, Dr. A. Nathues, Juan Sanches (SIR2-Team), The Moon observed from Earth and Space by the MPS, 24 Feb 2012

Prof. Ansgar Reiners (Universität Göttingen), An Overview of Exoplanetary Projects at the Institute of Astrophysics Göttingen, 12 Mar 2012

Martin Hilchenbach, Raman spectroscopy for Mars and beyond, 30 Mai 2012

Vishnu Reddy, Dawn at Vesta: Exchange of volatiles and carbon in the early Solar System, 04 Dec 2012

IMPRS Solar System Seminar (S³ Seminar)

Drei Vorträge von Doktoranden über das Thema ihrer Doktorarbeit

Three talks by students about their PhD project

Yeon Joo Lee, Venus cloud structure and radiative energy balance in mesosphere

Yoann Vernisse, Classification of the interaction of planetary bodies with stellar winds by hybrid simulation

Stefan Wiehle, Hybrid simulations of Venus ionospheric magnetization states

Ilya Usoskin (Oulu), Cosmic rays in the Earth's atmosphere

18 Jan 2012

Megha Bhatt, Iron abundance estimations using the SIR-2 and other VIS-NIR spectrometers on-board Chandrayaan-1

Jayant Joshi, Spectroscopy of Sunspot Penumbra in C I 5380.3 Å

Karsten Schindler, Detector Characterization Activities and Studies for Future VIS-NIR Spectrometers

1 Feb 2012

Neda Dadashi, The average Doppler shift of transition region and coronal lines

Farhad Shakeri, Cycle-related solar EUV variability

Christoph Koenders, The massloading process and the cometary bow shock position

15 Feb 2012

Shahin Jafarzadeh, Structure and dynamics of isolated internetwork bright points in the lower solar atmosphere observed by SUNRISE

David Bühler, Does the quiet Sun magnetic flux vary with time?

Lucia Duarte, Towards more realistic dynamo models of the gas giants

29 Feb 2012

Navdeep Panesar, A polar crown prominence observed by SDO and STEREO

Juan Sanchez, Phase reddening on near-Earth-asteroids: Implications for mineralogical analysis, taxonomic classification and space weathering

14 Mar 2012

Tijmen van Wettum, Different heating mechanisms for the solar corona

Dennis Röhrbein, Analysis of 3D-MHD simulations of solar-magneto convection

25 Apr 2012

Wieland Dietrich, Can the heterogeneous magnetization of the Martian crust originate from an ancient hemispherical dynamo?

Hendrik Kriegel, Hybrid simulations of Saturn's moons Enceladus and Rhea compared with Cassini magnetometer data

Benjamin Beeck, Magnetoconvection in cool stars - 3D simulations and spectral line synthesis

Jürgen Blum (Braunschweig), Building planets in the lab
9 May 2012

Nafiseh Masoumzadeh, Surface structure analysis of small bodies on the different scales

Chaitanya Giri, Carbon, Comets and COSAC

Kun Li, The source region of the cold ion outflowing from the Earth's ionosphere
23 May 2012

Juanjo Piqueras, Assessing effects of space radiation on the image sensor for SO/PHI

Jisesh Sethunadh, General circulation modeling of stratospheres of cold and warm Jupiters

Antoine Genetelli, Multi wavelength analysis of emerging flux using SDO
5 June 2012

Daniel Heisselmann, An experimental view on ice-particle collisions in Saturn's rings

Eugene Shalygin, Study of the Venus surface using Venus Monitoring Camera images
4 July 2012

Marc Hofmann, Granular flow in low gravity: Experiment

Jinhua Shen, Hard X-ray observation and extrapolation of coronal magnetic field

Iulia Chifu, 3D reconstruction of solar coronal features
18 July 2012

Emanuele Papini, Propagating linear waves in a convectively unstable solar model: a perturbative approach

Björn Löptien, Synthetic helioseismic data for Solar Orbiter

Jan Langfellner, Probing vortical motions with helioseismology
7 Nov 2012

Kun Li, The fate of cold ion outflow from polar ionosphere

Guneshwar Thangjam, Lithological variation and mapping of Vesta

Sebastian Höfner, Thermal modeling of active regions of cometary nuclei
21 Nov 2012

Yoann Vernisse, Stellar winds and planetary bodies simulation: transition by magnetic dipole variation

Stefan Wiehle, Hybrid simulations of Venus' dynamic plasma environment

Patricio Munoz, Theory and numerical simulations of current sheet instabilities in the solar corona
5 Dec 2012

Kok Leng Yeo, Sources of variation in solar irradiance

Konstantin Finke, Dynamo mechanism of the turbulent spherical Couette flow

Lucia Duarte, Anelastic dynamo models with variable electrical conductivity: an application to gas giants
19 Dec 2012

6. Lehrtätigkeit / Lectures

Vorlesungen von MPS-Wissenschaftlern an Universitäten und anderen Institutionen *Lectures of MPS scientists at universities and other institutions*

Aaron Birch: Physics of the Interior of the Sun and Stars (together with Laurent Gizon), Georg August University Göttingen, WS 2012/13

Data Analysis in Astrophysics (together with Laurent Gizon), Georg August University Göttingen, SS 2012

Jörg Büchner: Physics of the Sun, Heliosphere and Space Weather - Key Knowledge, Georg August University Göttingen, WS 2011/12 and WS 2012/13

Physics of the Sun, Heliosphere and Space Weather - Space Weather Applications, Georg August University Göttingen, SS 2012

Introduction into Solar Plasma Physics, University of Nanchang, China, October 2012

Laurent Gizon: Forschungsschwerpunkt: Astro- und Geophysik, Georg August Universität Göttingen, WS 2011/12 and WS 2012/13

Introduction to Helioseismology, Georg August Universität Göttingen, WS 2011/12

Data Analysis in Astrophysics, Georg August University Göttingen, SS 2012

Physics of the Interior of the Sun and Stars, Georg August University Göttingen, WS 2012/13

Walter Goetz: Regionale Geologie (Seminar), Georg August University Göttingen, SS 2012

Reinold Kallenbach: Turbulence – Advanced Course Master in Physics, University of Bern, Switzerland, SS 2012

Harald Krüger: Entstehung von Sonnensystemen (together with Klaus Jockers), Georg August University Göttingen, WS 2011/12 and WS 2012/13

Hardi Peter: Solar Eclipses and Physics of the Corona, Georg August University Göttingen, SS 2012

Numerical Experiments in Astrophysics (together with Wolfram Schmidt), Georg August University Göttingen, WS 2011/12

Solar and stellar activity (together with Ansgar Reiners), Georg August University Göttingen, WS 2012/13

Dieter Schmitt: Numerical methods in hydrodynamics, Institute of Theoretical and Applied Physics (ITAP), Turunc-Marmaris, Turkey, Sep. 2012

Manfred Schüssler: Good Scientific Practice and Ethical Issues in the Research Environment, Georg August University Göttingen, SS 2012

Hannah Schunker: Helioseismology, ISWI & MAGDAS Summer School on Space Science, Sep. 2012

Sami K. Solanki: Physical Study of the Sun and Heliosphere, School of Space Research, Kyung-Hee University, Yongin, Korea, SS 2012

How to write a scientific paper?, School of Space Research, Kyung-Hee University, Yongin, Korea, Apr./May 2012

Jean-Baptiste Vincent: Digital image processing in cometary science, Georg August University Göttingen, May 2012

Thomas Wiegmann: Space Plasma Physics, IMPRS, Apr – July 2012

7. Tagungen und Workshops *Conferences and workshop*

7.1 Organisation von Tagungen und Workshops *Organization of conferences and workshops*

Aaron Birch, 2013 LWS/SDO Science Workshop (SOC), Cambridge, USA, Mar. 2013

Hermann Böhnhardt: 6th Philae post-launch scientific workshop, 28-31 Oct. 2012, Seggau, Austria

Jörg Büchner: 1st German-Chinese Solar Physics Symposium “Multiwaveband observations and Modelling of Solar Activity, Nanjing, China, Oct. 2012;

Symposium “Theory and Simulation of Solar System Plasmas” at the EGU General Assembly, Vienna, Austria, Apr. 2012

Ulrich Christensen: Exploratory Round Table Conference MPG-CAS (Steering Committee), Shanghai, China, 1-3 Nov. 2012

Laurent Gizon: European Week of Astronomy and Space Science (EWASS) 2012 (SOC), Rome, Italy, 1 – 6 July 2012

ISSI Helioseismology Workshop (SOC), Bern, Switzerland, 24-28 Sept. 2012

“Eclipse on the Coral Sea: Cycle 24 Ascending” (SOC), Palm Cove, Australia, 12-16 November 2012

Fujihara seminar (SOC), Hakone, Japan, 25 -30 Nov. 2012

Martin Hilchenbach: COSIMA Team workshop, Orleans, France, 22-24 Okt. 2012

Natalie Krivova: Solar and stellar variability: what can we learn from a joint effort? EGU GA-2013, Vienna, Austria, 07 - 12 Apr. 2013

Elena Kronberg: MPS Symposium „What have we learned from multi spacecraft missions ?“, Katlenburg-Lindau, Germany, 22 June 2012

Norbert Krupp: Europlanet workshop “Aurora of Giant planets’ systems”, Santorini, Greece, 23-25 May, 2012

Cassini MAPS workshop, Cologne, Germany, 28-30 Mar. 2012

ISSI workshop “Giant Planet Magnetodiscs and Aurorae”, Bern, Switzerland, 26-30 Nov. 2012

Hardi Peter: From the Heliosphere into the Sun, Bad Honnef, Germany, 31 Jan.-3 Feb. 2012

Elias Roussos: Europlanet Workshop “Aurora of Giant planets’ systems”, Santorini, Greece, 23-25 May 2012

Emanuele Papini, Tino Riethmüller, Dieter Schmitt, Julia Thalmann: Rocks’n’Stars, Goettingen, Germany, 8-11 Oct. 2012

7.2 Convener bei wissenschaftlichen Tagungen

Convener during scientific meetings

Jörg Büchner: Symposium "Theory and Simulation of Solar System Plasmas", EGU General Assembly, Vienna, April 2012

Symposium "Plasma Astrophysics" at the DPG Spring Meeting, Heidelberg, Germany, February 2012

Symposium "Magnetic Reconnection in Space, the Sun and Astrophysics" COSPAR General Assembly, Mysore, India, July 2012

Structure and Dynamics of Solar and Stellar Magnetic Fields, British-German Astronomy Meeting, Manchester, 27-30 March 2012

Laurent Gizon: ISSI Helioseismology Workshop, Bern, Switzerland, 24-28 September 2012

Paul Hartogh: AOGS, 9th Annual General Meeting, Singapore, August 2012

Natalie Krivova: COST ES1005 - TOSCA Workshop on "Recent variability of the solar spectral irradiance and its impact on climate modelling?", Berlin, Germany, 14-16 May 2012

Elena Kronberg: Fall AGU Meeting, San Francisco, USA, 2-8 December 2012

Harald Krüger: Cospar General Assembly, session on 'Dust and Planetary Rings', Mysore India, 15-21 July 2012

Norbert Krupp: Europlanet workshop, Santorini, Greece, 22-25 May 2012

Cassini MAPS workshop, Cologne, Germany, 28-30 March 2012

ISSI workshop, Bern, Switzerland, 26-30 November 2012

Wojciech Markiewicz: EGU general Assembly, Vienna, Austria, 22 – 27 April 2012

Tino Riethmüller: Rocks 'n' Stars, Göttingen, Germany, 8-11 October 2012

Elias Roussos: European Planetary Science Congress, Madrid, Spain, 24-28 September 2012

Manfred Schüssler: Solar Physics with Large Telescopes, IAU General Assembly, Beijing, China, August 2012

Colin Snodgrass: UK/DE National Astronomy Meeting, Manchester, UK, 27-30 March 2012

European Planetary Science Congress, Madrid, Spain, 24-28 September 2012

Sami K. Solanki: 5th Solar Orbiter Workshop, Brugge, Belgium, 10-13 September 2012

26th NSO Workshop "Solar Origins of Space Weather and Climate: Connecting the Interior to the Corona", New Mexico, USA, 30 April – 4 May 2012

Marco Stangalini: European Week of Astronomy and Space Science (EWASS) 2012, Rome, Italy, 1-6 July 2012

Thomas Wiegmann: NAM 2012, session SP2: Solar Coronal Magnetic Fields, Manchester, UK, 27-30 March 2012

8. Gutachtertätigkeit für wissenschaftliche Zeitschriften

Reviews for scientific journals

Insgesamt wurden mehr als 162 Artikel für wissenschaftliche Zeitschriften von 35 Wissenschaftlern des MPS begutachtet.

In total more than 162 articles for scientific journals were reviewed by 35 different scientists of the MPS.

Gutachter (in alphabetischer Reihenfolge)/ **Reviewer** (in alphabetical order):

P. Barthol, A. Birch, H. Boehnhardt, J. Büchner, R. Burston, R. Cameron, U. Christensen, W. Curdt, M. Fraenz, A. Gandorfer, F. Goesmann, S. Haaland, P. Hartogh, M. Hilchenbach, J. Hirzberger, B. Inhester, D. Innes, R. Kallenbach, N. Krivova, E. Kronberg, H. Krüger, A. Lagg, M. Lukicheva, W. Markiewicz, M. van Noort, H. Peter, M. Rengel, E. Roussos, D. Schmitt, M. Schuessler, H. Schunker, C. Snodgrass, S. K. Solanki, M. Stangalini, L. Teriaca, V. Vasylunas, J.-B. Vincent, Y. Wei, T. Wiegmann, K. Wilhelm

Zeitschriften (Anzahl Gutachten)/ Journals (number of reviews):

Astronomy & Astrophysics (23)

Journal of Geophysical Research (20)

Advances in Space Research (18)

Astrophysical Journal (12)

Solar Physics (11)

Planetary & Space Science (10)

Geophysical Research Letters (9)

Icarus (7)

Astrophysical Journal Letters (5)

Annales Geophysicae (4)

Nonlinear Processes in Geophysics (4)

Physical Review Letters (4)

Astronomical Journal (3)

Earth & Planetary Science Letters (3)

Geophysical & Astrophysical Fluid Dynamics; Nature; Physics of the Earth & Planetary Interiors (2 each)

AGU Monograph; AIP proceedings; Astronomische Nachrichten; Astrophysics and Space Science; Atmospheric Chemistry and Physics; Atmospheric Measurement Techniques; Earth, Moon and Planets; Experimental Astronomy; Geophysical Journal International; Journal of Atmospheric and Solar-Terrestrial Physics; Journal of Computational Physics; Journal of Fluid Dynamics; Journal of selected Topics in Applied Earth Observations and Remote Sensing; Living Reviews in Solar Physics; Nuclear instruments and methods; Particuology; Physics of Fluids; Physics of Plasmas; Science; Space Science Reviews (1 each)

9. Herausgebertätigkeit / *Editorship*

Regina Aznar Cuadrado: Living Reviews in Solar Physics (Scientific Editor)

Peter Barthol: The SUNRISE Balloon-Borne Stratospheric Solar Observatory, Springer, ISBN 978-1-4419-9773-9

Joerg Büchner: Nonlinear Processes in Geophysics (Editor), Advances in Space Research (Associate Editor)

Hermann Boehnhardt: Earth, Moon and Planets (Editorial Board)

Ulrich Christensen: Physics of the Earth & Planetary Interiors

Alex Feller: Astronomische Nachrichten, vol. 333, issue 9 (GREGOR special issue)

Paul Hartogh: Advances in Geophysics (Editor)

Hardi Peter: Astronomy & Astrophysics (Editor)

Manfred Schüssler: Living Reviews in Solar Physics (Editorial Board)

Sami K. Solanki: Living Reviews in Solar Physics (Editor in Chief)

Johannes Wicht: International Journal of Geomathematics (Editor)

Klaus Wilhelm: Photons in Space 2013, Springer, 2nd Edition, 2012

10. Mitgliedschaft in wissenschaftlichen Gremien

Membership in scientific councils

Hermann Bönnhardt: IAU Commission 15 and 51; COSPAR Commission B; Member of the Science Study team for ESA's MarcoPolo-R Mission (2011-2012)

Jörg Büchner: Committee of the German Physical Society Extraterrestrial Physics Branch; Space Research Advisory Board of the Swedish National Space Board (SNSB); Advisory Committee "From Quantum to Cosmos"; International School on Space Plasma Simulation; Finish Academy Physics Evaluation Board; Steering Committee of the Max Planck Princeton Center for Plasma Physics; Member of the Council of German Astronomical Observatories

Ulrich Christensen: Steering Board of the Collaborative Research Center (SFB 963) "Astrophysical Flow Instabilities and Turbulence"; Göttingen Research Council; Advisory Board of SEDI (Study of the Earth's Deep Interior, Union Committee of the International Union of Geophysics and Geodesy); Committee for high pressure research in the geosciences of the Bavarian Academy of Sciences; Forschungskollegium Physik des Erdkörpers; Member of the Copernicus Gesellschaft e.V.

Laurent Gizon: Board Member, PLATO Mission Consortium; Collaborator, NASA SDO Science Center (Helioseismology); Board Member, European Helio- and Asteroseismology Network (HELAS); Elected Board Member, European Solar Physics Division (European Physical Society); Working Group Member, DLR/ESA 'Gossamer Roadmap' for solar sail technology; Board Member, Institute for Astrophysics, University of Goettingen

Paul Hartogh: ALOMAR Scientific Advisory Committee (ASAC); Herschel Users' Group (HUG)

Natalie Krivova: Co-leader CAWSES-II, Task 1, Project 2: What are the uncertainties in establishing the long-term direct solar effect upon climate?; Organizing Committee of Commission 12 of IAU

Norbert Krupp: JUICE Science Definition Team; International Academy of Astronautics

Hardi Peter: Head of Commission on "Sun & Heliosphere" of the Arbeitsgemeinschaft Extraterrestrische Forschung (AEF); Board of the Solar Physics Division (SPD) of the European Physical Society (EPS); Organizing committee of Commission 10 "Solar Activity" of the International Astronomical Union (IAU); Solar Orbiter SPICE Science Steering Committee

Sami K. Solanki: National Representative of SCOSTEP; European Space Science Committee (ESSC) of the European Science Foundation (ESF); Programme Commission "Extraterrestrial Physics" of DLR; Scientific Advisory Committee of the Instituto de Astrofísica de Canarias (IAC); Scientific Advisory Committee of the Istituto Ricerche Solari Locarno (IRSOL), Switzerland.

11. Auszeichnungen / *Awards*

Peter Barthol and Reinhard Meller: William Sweet Smith Prize 2011, Institution of Mechanical Engineers, Aerospace Division

Hardi Peter: Appointed “außerplanmäßiger Professor” at the University of Göttingen

Elias Roussos: 2011 Editors’ Citation for Excellence in Refereeing for GRL (awarded in June 2012)

SDO Science Investigation Team (Sami K. Solanki, Laurent Gizon, Aaron Birch, Ray Burston, Hannah Schunker, Yacine Saidi and Kaori Nagashima): NASA Group Achievement Award for outstanding designing, building and operating of the science investigation of SDO.