



**Max-Planck-Institut  
für Sonnensystemforschung**

*Max Planck Institute  
for Solar System Research*

**Tätigkeitsbericht 2010**  
*Activity Report 2010*



MAX-PLANCK-GESELLSCHAFT

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## 1. Wissenschaftliche Zusammenarbeit / *Scientific collaborations*

### 1.1 Wissenschaftlich Gäste (mit Aufenthalt $\geq 1$ Woche)

#### *Scientific guests (with stay $\geq 1$ week)*

**Eric Adamson** (University of Alaska, Fairbanks, USA), 1 Oct. – 31 Dec. (host: J. Büchner)

**Vincenzo Andretta** (INAF-Osservatorio Astronomico di Capodimonte, Napoli, Italy), 12 Aug.– 21 Aug. (host: L. Teriaca)

**Alexander Bazilevsky** (Vernadsky Institute, Russian Academy of Sciences, Moscow, Russia), 1 Aug. – 31 Aug. (host: W. Markiewicz)

**Ankit Bhagatwala** (Stanford University, Stanford, USA), 19 July – 30 Aug. (host: L. Gizon)

**Aaron Birch** (CoRA, Boulder, USA), 4 Dec. – 11 Dec. (host: L. Gizon)

**Nikolay Borisov** (Izmiran Institut, Moscow, Russia), 16 Feb. – 15 Mar. (host: U. Mall); 18 July – 8 Aug. (host: U. Mall); 17 Oct. – 30 Nov. (host: M. Fraenz)

**Michaëlle Bouilloud** (University of Paris 12, Paris, France), 6 Apr. – 6 June (host: F. Goesmann)

**Paul Cally** (Monash University, Clayton, Australia), 7 June – 27 June (host: L. Gizon)

**Mark Cheung** (Lockheed Martin Solar and Astrophysics Laboratory, Palo Alto, USA), 22 Feb. – 4 Mar. (host: M. Schüssler)

**Andrzej Czechowski** (Space Research Center of the Polish Academy of Sciences, Warsaw, Poland), 11 Oct. – 30 Nov. (host: M. Hilchenbach)

**Bhola Dwivedi** (Banaras Hindu University, Banares, India), 2 June – 15 June (host: W. Curdt)

**Ezequiel Echer** (INPE, Sao Jose Campos, Brasil), 1 Nov. – 11 Nov. (host: M. Fraenz)

**Narges Fathalian** (Institute of Advanced Studies, Zanjan, Iran), 23 July – 31 Dec. (host: B. Inhester)

**Li Feng** (Purple Mountain Observatory, Nanjing, China), 1 Mar. – 30 Dec. (host: B. Inhester)

**C. Geiger** (University of Delaware, Newark, Delaware, USA), 11 July – 11 Aug. (host: M. Hilchenbach)

**Jiansen He** (Peking University, Beijing, China), 1 Mar. – 31 Aug. (host: E. Marsch)

**Nikolai Ignatiev** (Space Research Institute, Russian Academy of Sciences, Moscow, Russia), 22 Feb. – 22 Apr.; 10 May – 12 June; 25 Oct. – 27 Nov. (host: W. Markiewicz)

**Emre Isik** (University Istanbul, Turkey), 22 Feb. – 5 Mar. (host: M. Schüssler)

**Jaime Araneda** (University of Concepcion, Chile), 1 July – 14 Aug. (host: E. Marsch)

**Setareh Javadi** (Shahid Beheshti University, Teheran, Iran), 1 Jan. – 26 Sep. (host: J. Büchner)

**Minsup Jeong, Hongdal Jun, Hyunnam Kim, Kyoung-Sun Lee, Jinyhe Park, Jong-Yeob Park** (School of Space Research, Kyung-Hee University, Yongin, Korea), 29 Sep.– 3 Dec. (host: S.K.Solanki)

**Viktor Korokhin** (Astronomical Institute of Kharkov National University, Kharkov, Ukraine), 27 Sep. – 28 Oct. (host: U. Mall)

**Konrad Kossacki** (Institute of Geophysics, Warsaw University, Warsaw, Poland), 8 Aug. – 3 Oct. (host: W. Markiewicz)

**Masahito Kubo** (Hinode Science Center, NAOJ, Tokyo, Japan), 18 Oct. – 20 Jan. (host: L. Gizon)

**Takeshi Kuroda** (Institute of Space and Astronautical Science, Sagami-hara, Japan), 8 Nov. – 8 Dec. (host: P. Hartogh)

- Kuan-Wu Lee** (National Central University, Jhongli City, Taiwan), 15 June – 31 Dec. (host: J. Büchner)
- Zhi-Chao Liang** (National Tsing Hua University, Hsinchu, Taiwan), 6 Mar. – 5 Oct. (host: L. Gizon)
- Ajay Manglik** (National Geophysical Research Institute, Hyderabad, India), 1 June – 30 July (host: U.Christensen)
- Karen Meech** (University of Hawaii, Honolulu, USA), 13 Oct. – 21 Oct. (host: H. Bönhardt)
- Dieter Nickeler** (Astronomical Institute AV ČR, Ondřejov, Czech Republic), 9 May – 22 May; 9 Nov. – 30 Nov. (host: Th. Wiegelmann)
- Antonius Otto** (University of Alaska, Fairbanks, USA), 17 Oct. – 27 Nov. (host: J. Büchner)
- Evgeny Panov** (Institut für Weltraumforschung, Graz, Austria), 5 Sep. – 12 Sep. (host: E.Kronberg)
- Arakel Petrosyan** (Space Research Institute, Russian Academy of Sciences, Moscow, Russia), one week (host: E. Marsch)
- Elena Petrova** (Space Research Institute, Russian Academy of Sciences, Moscow, Russia), 17 Oct. – 17 Nov. (host: W. Markiewicz)
- Vivek Raj** (Indian Institute of Technology, Kharagpur, India), 17 May – 20 July (host: M. Rengel)
- Vishnu Reddy Kanapuru** (University of North Dakota, Grand Forks, ND, USA), 5 July – 5 Sep. (host: A. Nathues)
- Anatoli Remizov** (Space Research Institute, Russian Academy of Sciences, Moscow, Russia), 31 May – 30 Sep. (host: M. Hilchenbach, N. Krupp)
- Rahul Sarkar** (Indian Institute of Technology, Kharagpur, India), 4 May – 11 July (host: L. Gizon)
- Sergey Savin** (Space Research Institute, Russian Academy of Sciences, Moscow, Russia), 11 July – 25 July (host: J. Büchner, P. Daly)
- Werner Schmutz** (Physikalisch-Meteorologisches Observatorium Davos, Switzerland), 25 Oct. – 12 Nov. (host: S.K. Solanki)
- Gerd Sonnemann** (Leibniz-Institut für Atmosphärenphysik, Kühlungsborn, Germany), 1 Sep. – 30 Sep. (host: P. Hartogh)
- Guillermo Stenborg** (Naval Research Lab, Washington, USA), 14 Sep. – 18 Nov. (host: B.Inhester)
- Hui Tian** (Peking University, Beijing, China), 1 Aug. – 31 Dec. (host: E. Marsch)
- Sanjiv Tiwari** (Udaipur Solar Observatory, Udaipur, India), 5 Aug. – 21 Aug. (host: S.K. Solanki)
- Victor Tsai** (U.S. Geological Survey, Denver, USA), 24 Oct. – 5 Nov. (host: Gizon)
- Chuanyi Tu** (Peking University, Beijing, China), 14 July – 31 July (host: E. Marsch)
- Tonjiang Wang** (Catholic University of America, Washington, USA), 25 July – 14 Aug. (host: S.K.Solanki)
- Shangbin Yang** (Chinese Academy of Sciences, Beijing, China), 1 Jan. – 15 Mar. (host: J. Büchner)

## 1.2 Aufenthalt ( $\geq 1$ Woche) von Wissenschaftlern des MPS an anderen Instituten

### *Visits ( $\geq 1$ week) of MPS scientists to other institutes*

**Hermann Boehnhardt:** Armagh Observatory, Armagh, Great Britain; 20 May – 31 May

**Walter Goetz:** University of Copenhagen, Denmark; 1 Jan. – 31 Jan.

**Norbert Krupp:** National Central University, Jhongli City, Taiwan; 20 Nov. – 26 Nov.

**Dieter Schmitt:** Ecole Normale Supérieure, Paris, France; 27 Jan. – 2 Feb., 26 Apr. – 29 Apr., 16 Aug. – 19 Aug.

**Stefan Schroeder:** Lunar and Planetary Laboratory, University of Arizona, Tucson, USA; 1 Nov. – 10 Dec.

**Udo Schuehle:** Southwest Research Institute, Boulder, CO, USA; 16 Aug. – 25 Aug.

**Hannah Schunker:** Colorado Research Associates, Boulder, USA; 7 Sep. – 3 Oct.

**Colin Snodgrass:** Las Cumbres Observatory, Santa Barbara, CA, USA; 12 Mar. – 5 Apr.  
European Southern Observatory, Chile; 25 Aug. – 16 Sep., 10 Feb. – 24 Feb.

**Sami K. Solanki:** Kyung-Hee University, Yongin, Korea; 3 July – 14 July. School of Space Research,  
Kyung-Hee University, Yongin, Korea; 6 Sep. – 1 Oct., 29 Nov. – 17 Dec.

**Vytenis M. Vasiliunas:** Center for Atmospheric Research, University of Massachusetts Lowell, USA;  
10 Oct. – 21 Oct.

### 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 and S.K. Solanki in collaboration with I. Ermolli (INAF Osservatorio Astronomico di Roma, Italy).

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

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

##### ***Astrophysical spectropolarimetry***

A. Gandorfer in collaboration with M. Bianda (IRSOL, Switzerland).

##### ***BEIRUS***

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

##### ***BepiColombo – BELA (Laser Altimeter)***

M. Hilchenbach, U. Christensen, R. Kallenbach, R. Roll, H. Fischer, and H. Perplies 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 Maurice des Fossés, France); D. Resendes (Instituto Superior Técnico, Universidade Técnica de Lisboa, Lisboa, Portugal).

##### ***BepiColombo – MIXS***

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

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

J. Woch, A. Loose, N. Krupp, and M. Fränz in collaboration with S. Orsini (PI) (IFSI, Roma, Italy); K. Torkar (SRI, Graz, Austria); J.-J. Berthelier (LPP-CNRS, St. Maurice des Fosses, France); P. Escoubet (ESTEC, Noordwijk, The Netherlands); F. Leblanc (IPSL, Verrières-Le-Buisson, France); K. Szego (KFKI, 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, P. Kollmann, A. Lagg, A. Müller and Z. Bebesi in collaboration with S. M. Krimigis, S. Livi, D. G. Mitchell (Applied Physics Laboratory, Johns Hopkins University, Laurel, MD, USA); D. Hamilton (University of Maryland, College Park, MD, USA); I. Dandouras (CESR, Toulouse, France); T. P. Armstrong (Fundamental Technologies, Kansas, USA).

##### ***CAST (CERN Axion Solar Telescope)***

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

##### ***Chandrayaan-1 – SIR-2***

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

**ChroMag - The magnetism of the chromosphere: combining theory and observations**

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

**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. Jungclaus (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)**

A. Korth, M. Fränz, P.W. Daly, S. Haaland, and E. Kronberg 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 – RAPID (Particle spectrometer RAPID); Data analysis**

P.W. Daly (PI), E. Kronberg, S. Haaland, U. Mall, J. Büchner, A. Korth, J. Woch, and V. M. Vasyliunas 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); 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); R. Nakamura (IWF, Graz, Austria); K. Nykyrii (Embry-Riddle University, Daytona, USA); Arpad Kis (Geodetic and Geo-physical Institute, Hungarian Academy of Science, Sopron, Hungary).

**Cluster Active Archive and German Cluster Data Centre (CAA, GCDC, archiving of RAPID-EDI data)**

P.W. Daly, E. Kronberg, E. Georgescu, S. Haaland in collaboration with M. Taylor, H. Laakso (ESA); C. H. Perry, J. Davies (RAL, Didcot, UK).

**Comparative analysis of plasma environment at Mars and Venus**

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

**Comparative helioseismic study of Active Region 9787**

L. Gizon, H. Moradi, and H. Schunker in collaboration with A. C. Birch, 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).

**Contrasts of magnetic features from magnetoconvection simulations**

M. Schüssler and S. K. Solanki in collaboration with N. Afram, Y. C. Unruh (Imperial College London, UK); A. Vögler (Astronomical Institute Utrecht, The Netherlands).

**Coronal MHD-equilibria**

T. Wiegmann in collaboration with T. Neukirch (University St. Andrews, UK); D. Nickeler (Astronomical Institute AV ČR, Ondřejov, Czech Republic).

**CoRoT additional program (AP) “Stellar variability and microvariability – III: convection and short term evolution of photospheric active regions”.**

N. A. Krivova and S. K. Solanki in collaboration with Institute of Astronomy (University of Cambridge, UK); School of Physics and Astronomy (University of St. Andrews, UK); Astrophysics Group (Imperial College, London, UK).

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

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

**Cosmic-ray propagation**

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

**Cosmogenic nuclides and past solar activity**

M. Schüssler and S. K. Solanki in collaboration with I. G. Usoskin (Sodankylä Geophysical Observatory, Finland); G. A. Kovaltsov (Ioffe Physical-Technical Institute, St. Petersburg, Russia).

**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).

**DAWN**

A. Nathues, H. Sierks, P. Gutierrez, I. Hall, L. Le Corre, T. Maue, V. Reddy, S. Schroeder and U. Christensen 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).

**Deep Impact at comet 9P/Tempel 1: Exploring the Dust Component**

H. Boehnhardt (PI) in collaboration with N. Ageorges, S. Bagnulo, O. Hainaut, E. Jehin, H. U. Kaeufl, F. Kerber, G. LoCurto, E. Pompei, O. Marco, F. Selmann (ESO, Garching, Germany & Santiago de Chile, Chile); L. Barrera (UMCE, Santiago de Chile, Chile); T. Bonev (University Sofia, Bulgaria); R. Gredel (MPI für Astronomie, Heidelberg, Germany); L. Lara, J. L. Ortiz (Instituto de Astrofísica de Andalucía, Granada, Spain); K. Meech (University of Hawaii, Honolulu, USA); E. Pantin (Service d'Astrophysique, IRFU/CEA, Gif sur Yvette, France); H. Rauer (DLR Berlin, Germany); G. P. Tozzi (INAF Arcetri Observatory, Florence, Italy).

**Deep Search for Biological Signatures on Mars critically supporting the Herschel mission**

P. Hartogh in collaboration with M. Mumma, G. Villanueva (NSAS GSFC, Greenbelt, USA); R. E. Novak (Iona College, New Rochelle, USA); H. U. Käufl (ESO, Garching, Germany).

**Detection of waves in the solar Atmosphere**

L. Teriaca and S. K. Solanki in collaboration with D. Banerjee, G. Gupta (IIA, Bangalore, India).

**DFG-ISDUST (Interstellar Dust in the Solar System)**

H. Krüger and P. Strub 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 (ISAS, Sagami-hara, 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.**

P. Hartogh, C. Jarchow, and K. Hallgren 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, E. Dubinin, 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, M. de Val-Borro, A. Medvedev, and L. Rezac 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).

#### **Diagnosics of magnetoconvection**

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

#### **EJSM-GALA (Ganymede Laser Altimeter)**

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

#### **EJSM-SWI**

P. Hartogh, C. Jarchow, M. Rengel, R. Kallenbach, A. Gonzales, 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).

#### **EJSM- Voruntersuchung für Plasma-Instrument**

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

#### **European Solar Telescope (EST)**

A. Feller, J. Hirzberger and S.K. Solanki in collaboration with B. Gelly, A. Lopez-Ariste (Themis S.L., France); C. Keller, F. Bettonvil (Utrecht University, Utrecht, The Netherlands); R. Volkmer, T. Kentischer (Kiepenheuer Institut für Sonnenphysik, Freiburg, Germany); M. Collados (Instituto de Astrofísica de Canarias, La Laguna, Spain); G. Scharmer (Royal Swedish Academy of Sciences, Stockholm, Sweden); F. Cavallini, G. Cauzzi (INAF, Osservatorio Astrofisico di Arcetri, Florence, Italy); A. Kucera (Astronomical Institute of the Slovak Academy of Sciences, Tatranska Lomnica, Slovak Republic); F. Berrilli (Università degli Studi di Roma Tor Vergata, Rome, Italy); G. Molodij (Observatoire de Paris, Paris-Meudon, France).

#### **EUROPLANET (European Planetology Network)**

N. Krupp in collaboration with CESR (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), O. Roders, M. Bierwith, H. Steininger, E. Steinmetz, W. Goetz and M. Hilchenbach in collaboration with Paul Mahaffy, Will Brinckerhoff (NASA GSFC, Washington, DC, USA); L. Becker (John Hopkins University, Baltimore, USA); R. Cotter (Johns Hopkins School of Medicine, Baltimore, USA); C. Szopa (Laboratoire Atmosphères, Milieux, Observations Spatiales, Paris, France); F. Raulin (Laboratoire Interuniversitaire des Systèmes Atmo-sphériques, Paris, France).

**ExoMars – RAMAN – LIBS**

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

**ExoMars – SEIS**

U. Christensen, R. Roll, M. Bierwirth and W. Goetz in collaboration with P. Lognonné (IPGP, Paris, France).

**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 and A. Lagg in collaboration with D. J. Williams, R. McEntire (Applied Physics Laboratory, John Hopkins University, Laurel, USA); S. Kasahara (Institute of Space and Astronautical Science, Sagamihara, Kanagawa, Japan).

**GBSO – Ground Based Solar Observations**

A. Gandorfer, J. Hinzberger, A. Lagg, 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).

**GEMS**

R. Roll, U. Christensen, M. Bierwirth, and W. Goetz in collaboration with JPL (Pasadena, USA)

**Geomagnetic dipole frequency spectrum**

U. Christensen and J. Wicht in collaboration with P. Olson (John Hopkins University, Baltimore, USA); G. Glatzmaier (University of California, Santa Cruz, USA).

**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 Michal Svanda in collaboration with A. C. Birch (CoRA, Boulder, USA); T. Hohage (Göttingen University, 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).

***Helmholtz-Allianz "Planetary Evolution and Life"***

U. Christensen, J. Wicht, H. Boehnhardt and P. Hartogh 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, C. Jarchow and T. Cavalie in collaboration with F. Helmich, R. Assendorp, I. Avruch, K. Edvards, D. Kester, C. Risacher, 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); C. McCoe (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); E. Sánchez Suárez (CSIC, Madrid, Spain).

***Hinode data analysis***

A. Lagg, S. K. Solanki, and J. Hirzberger in collaboration with National Astronomical Observatory of Japan (NAOJ); S. K. Mathew (Udaipur Observatory, India).

***HssO (Herschel Solar System Observations)***

M. Rengel, P. Hartogh, T. Cavalie, A. Gonzalez, C. Jarchow, M. de Val-Borro and A. Medvedev in collaboration with M. Banaszkiwicz, 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.

***Identification and misidentification of different types of kink modes in coronal loops***

S. K. Solanki in collaboration with T. J. Wang (Montana State University, Bozeman, USA); M. Selwa (NASA GSFC, Greenbelt, USA).

***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).

***Internal magnetic fields of the gas giants***

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).

***Inter-scale coupling in magnetic reconnection***

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

***IRIS Interface Region Imaging Spectrograph***

T. Wiegmann in collaboration with A. Title, K. Schrijver (LMSAL, Palo Alto, USA).

***ISSI Team "Interpretation and modelling of Solar Spectral Irradiance measurements"***

N. A. Krivova and S. K. Solanki in collaboration with INAF Osservatorio Astronomico di Roma (Italy); Astrophysics Group (Imperial College, London, UK); PMOD WRC (Davos, Switzerland); LASP

(University of Colorado, Boulder, USA); Institut für Umweltphysik (Universität Bremen, Germany); Interferometrics Inc. (Herndon, USA).

***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 “Structure and Dynamics of Coronal Plumes and Inter-plume Regions in Solar Coronal Holes”***

K. Wilhelm (Team leader), L. Teriaca, and L. Feng in collaboration with L. Abbo, S. Giordano (INAF Osservatorio Astronomico di Torino, Italy); F. Auchère, A. H. Gabriel, N. Barbey (Institut d’Astrophysique Spatiale, Orsay, France); S. Imada (National Astronomical Observatory of Japan, Osawa, Japan); A. Llebaria (Laboratoire d’Astrophysique de Marseille, France); W. H. Matthaeus (Bartol Research Institute, Newark, USA); G. Poletto (Osservatorio Astrofisico di Arcetri, Firenze, Italy); N.-E. Raouafi (National Solar Observatory, Tucson, USA); S. T. Suess (NASA Marshall Space Flight Center, Huntsville, USA); Y.-M. Wang, E. O. Hulburt (Center for Space Research, Washington, USA).

***ISSI Team “Venus Climate”***

D. Titov in collaboration with A. Balogh, L. Bengtsson, R.-M. Bonnet, S. Koumoutsaris, A.-P. Rossi (ISSI); C. Covey (Lawrence Livermore National Laboratory, Livermore, USA); D. Grinspoon (Museum of Natural History, Denver, USA); S. Lebonnois (Laboratoire de Météorologie Dynamique, Paris, France); S. Limaye (University of Wisconsin, Madison, USA); R. Pierrehumbert (University of Chicago, USA); P. Read (AOPP, Oxford University, UK); H. Schmidt (MPI für Meteorologie, Hamburg, Germany); H. Svedhem (ESTEC, Noordwijk, The Netherlands); M. Yamamoto (Institute of Space and Astronautical Science, Sagami, Japan).

***Kinetische Physik des Sonnenwinds***

E. Marsch in collaboration with J. Araneda (Universität Concepción, Chile).

***Kinetische Plasmaphysik der Sonnenkorona***

E. Marsch in collaboration with G. Mann, C. Vocks (Astrophysikalisches Institut Potsdam, Germany).

***KuaFu – “Space Weather Explorer”***

U. Schühle and E. Marsch in collaboration with Chuanyi Tu (PI), J.-S. Wang (Peking University, Beijing, China); E. Donovan (University of Calgary, Canada); L.-D. Xia (School of Earth and Space Sciences, University of Science and Technology of China, Hefei, Anhui, China); Y.-W. Zhang (China Academy of Space Technology and DFH Satellite Co. Ltd, Beijing, China).

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K. Wilhelm in collaboration with J. E. Truemper (Max-Planck-Institut für Extraterrestrische Physik, Garching, Germany)

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

L. Teriaca, W. Curdt, D. Innes, H. Peter, U. Schuehle, S.K. Solanki and T. Wiegmann in 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, 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).

#### **LEO-MIMO**

P. Hartogh, L. Paganini, M. Rengel, and D. Titov in collaboration with M. Küppers (European Space Astronomy Centre, Villafranca, Spain); K. Kossacki (University of Warsaw, Warsaw, Poland).

#### **MAG (Magnetometer for Solar Orbiter)**

E. Marsch and U. Christensen in collaboration with T. Horbury (PI) (Imperial College London, UK).

#### **Magnetic fields of low-mass stars and brown dwarfs**

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

#### **MAOAM (The Martian Atmosphere: Observing And Modelling)**

P. Hartogh, C. Jarchow and A. Medvedev in collaboration with U. Berger, G. Sonnemann, M. Grygalashvyly (IAP Kühlungsborn, Germany); T. Kuroda (ISAS, Sagamihara, 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).

#### **Marco Polo – Study of the laser altimeter**

R. Kallenbsch 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**

N. Hoekzema and W. Markiewicz in collaboration with K. Gwinner, T. Roatch, H. Hofmann (DLR, Berlin, Germany); G. Neukum (FU, Berlin, Germany); A. Inada (CalTech, Los Angeles, USA); L. Petrova (IKI, Moscow, Russia).

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

M. Fränz, J. Woch, N. Krupp, and E. Dubinin 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 – OMEGA**

D. Titov in collaboration with J.-P. Bibring, Y. Langevin, B. Gondet (Institut d'Astrophysique Spatiale, Orsay, France); P. Drossart (Observatoire de Paris, Meudon, France); N. Ignatiev (Space Research Institute, Moscow, Russia).

#### **Mars Express – PFS**

D. Titov in collaboration with V. Formisano (INAF Istituto di Fisica dello Spazio Interplanetario, Rome, Italy), N. Ignatiev, A. Fedorova (Space Research Institute, Moscow, Russia); E. Lellouch, T. Fouchet, Th. Encrenaz (Observatoire de Paris, Meudon, France).

#### **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).

**MARVEL – Mars Volcanic Emission and Life Scout**

P. Hartogh in collaboration with M. Allen (JPL, Pasadena, USA); G. Chin (NASA GSFC, Greenbelt, 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 (ISAS, Sagamihara, 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).

**Micro-lensing 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).

**Micro-turbulent transport**

J. Büchner in collaboration with F. Jenko, Moritz Püschel (IPP, Garching, Germany).

**Millennium – climate simulations for the last millennium using the Earth System Model (ESM)**

N. A. Krivova and S. K. Solanki in collaboration with Max-Planck-Institut für Meteorologie (Hamburg, Germany); Freie Universität Berlin (Berlin, Germany).

**Mode analysis of geodynamo models**

D. Schmitt in collaboration with M. Schinner (Ecole Normale Supérieure, Paris, France); P. Hoyng (SRON, Utrecht, The Netherlands).

**Models of the dynamo of Mars**

U. Christensen and J. Wicht in collaboration with D. Breuer (DLR – Institut für Planetenforschung, Berlin, Germany).

**MPCS – Study of the Marco Polo Camera System**

H. Boehnhardt, H. Perplies, and G. Tomasch in collaboration with G. Cremonese, V. de Deppo, S. Marchi, G. Naletto (INAF, Padova, Italy); L. Lara, J. Castro, M. Herranz, J. Ramos, J. Rodrigo (IAA, Granada, Spain); H. Michalik, B. Fiethe, B. Osterloh (IDA, Braunschweig, Germany); S. Mottola, T. Behnke, H. Michaelis, J. Oberst (DLR, Berlin, Germany); G. Alonso, I. Perez-Grande, A. Sanz-Andres (UPM, Madrid, Spain).

**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**

T. Wiegmann, 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)**

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

**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, Moffet 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. Paulo 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. Alvarez-Candal (ESO, Santiago de Chile, Chile); P. Lacerda (Queen's University, Belfast, UK).

**PHOENIX**

W. Markiewicz in collaboration with P.H. Smith (Lunar and Planetary Laboratory, University of Arizona, USA); M. Hecht (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, USA).

**Physical and composition properties of shortperiodic and Oort Cloud comets**

H. Boehnhardt, M. Lippi, 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).

**Physik der Saturnmagnetosphäre im Vergleich mit Jupiter**

N. Krupp in collaboration with W.H. Ip (Institute of Astronomy, National Central University Taiwan, Jhongli City, Taiwan); T. Krimigis (Applied Physics Laboratory, Johns Hopkins University, Laurel, USA); K.K. Khurana (UCLA, Los Angeles, 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 (IAP, Paris, France).

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

L. 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, 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 J.-F. Hochedez (PI), A. BenMoussa, D. Berghmans, A. Theissen, V. Delouille, B. Nicula, L. Wauters, R. Van der Linden, A. Zhukov, F. Clette (Royal Observatory of Belgium, Brussels, Belgium); W. Schmutz, S. Koller, H. Roth, E. Rozanov, I. Rüedi, C. Wehrli (Physikalisch-Meteorologisches Observatorium Davos, Davos, Switzerland); K. Haenen, V. Mortet,

Z. Remes, M. Nesládek, M. D'Olieslaeger (Institute for Materials Research, Diepenbeek, Belgium); Y. Stockman, J.-M. Defise, J.-P. Halain, P. Rochus (Centre Spatial de Liège, Liège, Belgium); D. Gillotay, D. Fussen, M. Dominique, 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. Kretschmar (Istituto Fisica dello Spazio Interplanetario, Rome, Italy); R. Petersen, M. Nesládek, M. D'Olieslaeger (IMEC, Diepenbeek, Belgium); J. Roggen (IMEC, Louvain, Belgium); 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, J. F. Hochedez, B. Nicula, G. Lawrence, A. C. Katsyiannis, R. Van der Linden, A. Zhukov, F. Clette (Royal Observatory of Belgium, Brussels, Belgium); J. M. Defise (PI), J. H. Lecat, P. Rochus, E. Mazy, T. Thibert (Centre Spatial de Liège, Liège, Belgium); P. Nicolosi, M. G. Pelizzo (University of Padova, Italy); V. Slemzin (Lebedev Physical Institute, Moscow, Russia).

**PROBA-3 – SPIIC**

W. Curdt and S.K. Solanki in collaboration with Ph. Lamy (Laboratoire d'Astrophysique de Marseille, France); K. Tsinganos (University of Athens, Greece)

**Propagating waves in polar coronal holes as seen by SUMER & EIS**

L. Teriaca and S. K. Solanki in collaboration with D. Banerjee (Indian Institute of Astrophysics, Bangalore, India); G. R. Gupta (Indian Institute of Science, Bangalore, India); S. Imada (National Astronomical Observatory of Japan, Tokyo, Japan); G. Stemborg (Interferometrics Inc., Herndon, USA).

**PROTEUS**

H. Böhnhardt and M. Hilchenbach in collaboration with Y. Langvin (Institute d'Astrophysique Spatiale, Paris, France); K. Meech (University of Hawaii, USA); J. Silen (Finish Meteorological Institute, Helsinki, Finland)

**RAISE – Rapid Imaging Spectrograph Experiment**

U. Schühle in collaboration with D. Hassler (PI), D. Slater, C. DeForest, S. McIntosh (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).

**Rapid time variations of the geomagnetic field**

U. Christensen and J. Wicht in collaboration with V. Lesur (GeoForschungsZentrum, Potsdam, Germany).

**Rosetta – CONSERT** (*Radio Tomography Project*)

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

**Rosetta – COSAC** (*PHILAE*)

R. Roll and H. Boehnhardt 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, H. Boehnhardt, and H. Fischer 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, 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, Orléans, France); K. Torkar (Institut für Weltraumforschung, Graz, Austria); M. Trieloff (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) and A. Loose 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 1. Physikalisches Institut, 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, S. F. Hviid, R. Kramm, N. Ockay, C. Snodgrass, J.-B. Vincent, and C. Tubiana 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, Torrejón 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 di 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, R. Roll, B. Chares, H. Fischer, O. Küchemann and W. Kühne in collaboration with S. Ulamec (DLR, Köln, Germany); J. P. Bibring (IAS, Paris, France); P. Gaudon (CNES, Toulouse, France).

#### ***Rosetta – PHILAE – ROMAP***

M. Hilchenbach, R. Roll and H. Boehnhardt 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).

***Search for dust clouds near the solar system with the Wilkinson Microwave Anisotropy Probe***

H. Krüger in collaboration with D. Schwarz, V. Dikarev (Universität Bielefeld, Germany); A.V. Krivov (Friedrich Schiller Universität Jena, Germany).

***Seismic Constraints on Solar Convection***

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

***SELENE2-SEIS***

M. Bierwirth, R. Roll and U. Christensen in collaboration with N. Kobayashi, H. Shiraishi (JAXA Institute of Space and Astronautical Science, Tokio, 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)

***Sensitivity kernels for local helioseismology***

L. Gizon and R. Burston in collaboration with A. C. Birch (CoRA, Boulder, USA).

***Simulation of the kinetics of space plasmas***

J. Büchner in collaboration with M. Palmroth, L. Daldorff (Finnish Meteorological Institute, Helsinki, Finland)

***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, R. Burston, H. Moradi and Th. Stahn in collaboration with 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 P. Bochsler (PI), 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, Karin Bamert (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, U. Schühle, S. K. Solanki, L. Teriaca, H. Peter and K. Wilhelm in collaboration with E. Landi, U. Feldman, G. A. Doschek, J. T. Mariska (Naval Research Laboratory, Washington, USA); P. Lemaire, A. H. Gabriel, J.-C. Vial (Institut d'Astrophysique Spatiale, Orsay, France); A. I. Poland (NASA GSFC, Greenbelt, USA); J. Hollandt (PTB, Berlin, Germany); O. Siegmund (SSL, University of California, Berkeley, USA); D. Hassler (SWRI, Boulder, USA); P. G. Judge (HAO, Boulder, USA); N.

Brynildsen, M. Carlsson, P. Maltby, O. Kjeldseth- Moe (Institute of Theoretical Astrophysics, University of Oslo, Norway); P. Brekke (ESA/NASA GSFC, Greenbelt, USA); H. P. Warren (Harvard-Smithsonian Center for Astrophysics, Cambridge, USA); B. N. Dwivedi (DAP, Varanasi, India); C.-Y. Tu (DG, Beijing, China); J. G. Doyle (Armagh Observatory, UK); P. Heinzel (Astronomical Institute, Czech Academy of Science, Ondrejov, Czech Republic); M.C.E. Huber, A. Pauluhn (Paul Scherrer Institut, Villigen, Switzerland).

***SOLAIRE (Solar Atmospheric and Interplanetary Research) - Research Training Network***

E. Marsch in collaboration with F. Moreno-Insertis (Instituto de Astrofísica de Canarias, Tenerife, Spain); A. Hood (University of St Andrews, UK); S. Poedts (Katholieke Universiteit Leuven, Belgium); A. Nordlund (Niels Bohr Institute, University of Copenhagen, Denmark); V. Hansteen (Institute of Theoretical Astrophysics, University of Oslo, Norway); G. Aulanier (Observatoire de Paris, Meudon, France); L. Fletcher (University of Glasgow, UK); F. Zuccarello (Università di Catania, Italy); Ch. Keller (Utrecht University, The Netherlands); K. Petrovay (Eötvös University, Budapest, Hungary); A. Milne (Fluid Gravity Engineering Ltd., St Andrews, UK)

***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-C (Plan A) Science Definition***

L. Gizon in collaboration with T. Sekii (NOAJ, Tokyo, Japan) and others.

***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 Observatoy, 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 G. Mann (Astrophysikalisches Institut Potsdam, Germany).

***Solar Flares***

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

***Solar Flare Telescope***

T. Wiegmann and J. Thalmann in collaboration with T. Sakurai (National Astronomical Observatory, Japan)

***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).

***Solar Orbiter: EU1***

U. Schühle, W. Curdt, L. Teriaca, and S. K. Solanki in collaboration with T. Apporchaux, J.-C. Vial, F. Auchere (Institut d'Astrophysique Spatiale, Paris, France); P. Rochus, J. M. Defise (Centre Spatial de Liège, Liège, Belgium); J.-F. Hochedez (PI), A. BenMoussa (Royal Observatory of Belgium, Brussels, Belgium); L. Harra, J. Sun, D. Williams (Mullard Space Science Laboratories, London, UK).

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

L. Teriaca, U. Schühle and S. K. Solanki in collaboration with E. Antonucci (INAF Osservatorio Astronomico di Torino, Turin, Italy); N. Afram, Y. Unruh (Imperial College, London, UK); J. Harder (University of Colorado, Boulder, USA); T. Wenzler (ETH Zürich, Switzerland).

**Solar Orbiter: PHI**

S. K. Solanki, A. Feller, A. Gandorfer, L. Gizon, J. Hirzberger, A. Lagg, U. Schühle, and J. Woch 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, and H. Peter in collaboration with D. Hassler, C. DeForest, D. Slater (Southwest Research Institute, San Antonio, USA); J. Davila, S.K. Antiochos, T. Kucera, R. Thomas (NASA GSFC, Washington, USA); H. P. Warren, J. Mariska (NRL, Washington, USA); K. Schrijver (LMSL, Palo Alto, USA); S. Habbal, I. Roussev (University of Hawaii, USA); T. Zurbuchen (University of Michigan, Ann Arbor, USA); D. Longcope (Montana State University, Bozeman, USA); T. Appourchaux, Buchlin, F. Auchere, J.-C. Vial (IAS, Paris, France); R. Harrison, P. Young (RAL, Didcot, UK); S. Mathews (MSSL, London, UK); M. Carlsson, V. Hansteen (Institute of Theoretical Astrophysics, University of Oslo, Norway).

**Solar Stereoscopy**

B. Inhester and T. Wiegmann 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).

**Solar transition region and coronal convection**

E. Marsch in collaboration with C.-Y. Tu (Peking University, Beijing, China).

**Solis**

T. Wiegmann and J. Thalmann in collaboration with N. E. Raouafi (NSO, Tucson, USA).

**Sources of the solar wind**

E. Marsch in collaboration with C.-Y. Tu (Peking University, Beijing, China).

**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 – SECCHI** (*Sun Earth Connections Coronal and Heliospheric Investigation*)

T. Wiegmann in collaboration with R. Howard (Naval Research Laboratory, Washington D.C., USA); V. Bothmer (Universität Göttingen) and members of the following institutes: Johns Hopkins

University (Laurel, USA); Rutherford Appleton Laboratory (Didcot, UK); University College (London, UK); Mullard Space Science Lab (Dorking, UK); NASA GSFC (Greenbelt, USA); University of Birmingham (UK); Universität Kiel (Germany); Centre Spatial de Liège (Liège, Belgium); Lockheed Martin Solar Lab (Palo Alto, USA); Institut d'Astrophysique Spatiale (Orsay, France); Royal Observatory of Belgium (Bruxelles, Belgium); Laboratoire d'Astronomie Spatiale (Marseille, France); Observatoire de Paris (Meudon, France); NASA/JPL (Pasadena, USA); University of Michigan (Ann Arbor, USA); Science Applications International Corporation (San Diego, USA).

### ***Structure of the solar chromosphere***

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, M. de Val-Borro, C. Jarchow, 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 and T. Wiegmann 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. K. Solanki in collaboration with V. Martínez Pillet (Instituto de Astrofísica de Canarias, Tenerife, Spain); B. Lites (High Altitude Observatory, Boulder, USA); S. K. Mathew (Udaipur Solar Observatory, India).

### ***Surface exploration of Kuiper Belt Objects and Cometary Nuclei***

H. Boehnhardt (PI) and S. Protopapa 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***

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

### ***SWA for Solar Orbiter (Solar Wind Analyser)***

E. Marsch in collaboration with C. Owen (PI) (Mullard Space Science Laboratory, Dorking, UK).

### ***The intensity oscillations in the chromospheric emissions***

M. Loukitcheva in collaboration with S. White (University of Maryland, College Park, USA).

### ***Three-dimensional reconnection***

J. Büchner in collaboration with B. Scott (IPP Garching, Germany).

### ***TNOs are cool***

H. Boehnhardt and M. Rengel 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).

#### **Topology of coronal magnetic fields**

T. Wiegmann in collaboration with E. Priest, S. Régnier (University of St. Andrews, UK).

#### **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).

#### **Ulysses – SWICS (Solar Wind Ion Composition Spectrometer)**

J. Woch and M. Fränz in collaboration with L. Rodriguez (Royal Observatory of Belgium, Brussels, Belgium); R. von Steiger (ISSI, Bern, Switzerland).

#### **Understanding the WMAP Results: Low-order multipoles and dust in the vicinity of the solar system**

H. Krüger in collaboration with A. Krivov (Universität Jena, Germany).

#### **UV spectroscopy of the solar corona**

E. Marsch and W. Curdt in collaboration with L.-D. Xia (Shandong University, Weihai, China).

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

M. Fränz and J. Woch 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, Tucson, USA); J. A. Sauvaud, A. Fedorov (CESR, Toulouse, France); E. Kallio (FMI, Helsinki, Finland); S. Orsini (IFSI, Rome, Italy).

#### **Venus Express Scientific Support**

D. Titov in collaboration with H. Svedhem, O. Witasse (ESTEC, Noordwijk, The Netherlands); R. Hoofs, D. Meritt, M. Almeida (ESAC-ESA, Madrid, Spain).

#### **Venus Express-VeRa (Venus Radio Science)**

D. Titov in collaboration with M. Paetzold, S. Tellmann (Rheinisches Institut für Umweltforschung Cologne, Germany); B. Haeusler (University of Bundeswehr, Munich, Germany).

#### **Venus Express – VIRTIS**

D. Titov in collaboration with P. Drossart (Observatoire de Paris, Meudon, France); G. Piccioni, D. Grassi (Institute for Space Astrophysics, Rome, Italy).

#### **Venus Express – VMC (Venus Monitoring Camera)**

D. Titov and W. Markiewicz 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); E.

Shalygin (Kharkov University, Ukraine); A. Basilevsky (Vernadsky Institute for Analytical Chemistry and Geochemistry, Moscow, Russia); S. Limaye (University of Wisconsin, Madison, USA).

***VESPER – Venus Atmosphere Chemistry and Dynamics Orbiter***

P. Hartogh and C. Jarchow in collaboration with G. Chin (NASA GSFC, Greenbelt, USA); M. Allen (JPL, Pasadena, USA).

***VUV spectroscopy for Solar-C***

L. Teriaca, S. K. Solanki, and U. Schühle in collaboration with T. Shimizu (ISAS/JAXA, Tokio, Japan); T. Watanabe, S. Tsuneta (NAOJ, Tokio, Japan); L.K. Harra (MSSL, Dorking, UK); G. A. Doschek, C. Korendyke (NRL, Washington DC, 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)

***Wave propagation in inclined magnetic fields***

H. Schunker 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).

## 2. Vorschläge und Anträge / *Proposals*

### 2.1 Projektvorschläge / *Project proposals*

#### ***Caroline, a search for Earth's water***

Submitted to ESA.

C. Snodgrass, H. Sierks, and C. Tubiana with G. Jones (PI), J. Agarwal, C. S. Arridge, N. Bowles, M. Burchell, A. J. Coates, M. Dougherty, S. Duddy, A. Fitzsimmons, A. Graps, H. Hsieh, C. Lisse, S. C. Lowry, A. Masters.

#### ***German Network for Lunar Science and Exploration***

Submitted to NASA.

U. Mall with R. Jaumann (DLR - Institut für Planetenforschung, Berlin, Germany) and others.

#### ***Helio- and ASteroseismology TRaining Network (HASTRAN)***

Submitted to EU-FP7; not selected

L. Gizon with T. Appourchaux (Coordinator, Institut d'Astrophysique Spatiale), J. Christensen-Dalsgaard (Aarhus University), M. Roth (Kiepenheuer-Institut für Sonnenphysik), C. Aerts (Katholieke Universiteit Leuven), M. Monteiro (Centro de Astrofísica da Universidade do Porto), M. Thompson (University of Sheffield), P. Pallé (Instituto de Astrofísica de Canarias), G. Houdek (Universität Wien), J. Daszyńska-Daszkiewicz (Uniwersytet Wrocławski), W. Lork (EADS Astrium GmbH), and 7 associated partners.

#### ***Helioseismology-based space weather Forecast Service (HelioFoS)***

Submitted to EU-FP7; not selected

L. Gizon (PI), R. Burston and H. Moradi with H. Sdunnus (etamax space GmbH, Germany), T. Appourchaux (Institut d'Astrophysique Spatiale, France), M. Roth (Kiepenheuer-Institut für Sonnenphysik, Germany), J. Harms (LuxSpace SARL, Luxemburg), T. Corbard (Observatoire de la Côte d'Azur, France), M. Thompson (University of Sheffield, UK), K. Mursula (University of Oulu, Finland), C. Foullon (University of Warwick).

#### ***ISSI Team "The Interpretation and Modeling of Solar Spectral Irradiance Measurements"***

Submitted to ISSI.

N. Krivova and S.K. Solanki with J. Harder, W. Schmutz, Y.C. Unruh, W. Ball, I. Ermolli, M. Weber, L. Floyd

#### ***LEMUR: Large European Module for solar Ultraviolet Research (European contribution to JAXA's Solar-C mission).***

Submitted to ESA; selected

L. Teriaca, W. Curdt, D. Innes, H. Peter, U. Schuehle, and T. Wiegmann with V. Andretta, F. Auchere, C. M. Brown, E. Buchlin, G. Cauzzi, J. L. Culhane, J. M. Davila, G. Del Zanna, G. A. Doschek, S. Fineschi, A. Fludra, P. T. Gallagher, L. Green, L. K. Harra, S. Imada, B. Kliem, C. Korendyke, J. T. Mariska, V. Martinez-Pillet, S. Parenti, S. Patsourakos, L. Poletto, R. J. Rutten, M. Siemer, T. Shimizu, H. Socas-Navarro, D. Spadaro, J. Trujillo-Bueno, S. Tsuneta, S. Vargas Dominguez, J.-C. Vial, R. Walsh, H. P. Warren, B. Winter, P. Young

#### ***Proteus - Searching for the origin of Earth's water***

Submitted to NASA.

H. Boehnhardt, M. Hilchenbach, and H. Sierks with K. Meech, M. A'Hearn, F. Anderson, S. Bolton, C. Briois, S. Chesley, A. Coradini, O. Hainaut, K. Hand, D. Jewitt, T. Johnson, K. Klaasen, A. Krot, Y. Langevin, T. Mäkinen, M. Mottl, T. Owen, D. Pralnik, J. Waite, and D. Young.

#### ***Solar Dynamics Observatory Data Centres in Europe (SOLACE)***

Submitted to ESA; not selected



L. Gizon and R. Burston with V. Delouille (PI) (Royal Observatory of Belgium); E. Buchlin (Institut d'Astrophysique Spatiale); D. Brown (University of Central Lancashire).

***Solar magnetism eXplorer (SolmeX)***

Submitted to ESA; not selected

H. Peter, W. Curdt, A. Gandorfer, B. Inhester, A. Lagg, U. Schühle, S. Solanki, and L. Teriaca with L. Abbo, A. Bemporad, S. Fineschi (INAF Osservatorio Astronomico di Torino, Italy); V. Andretta (INAF Osservatorio Astronomico di Capodimonte, Napoli, Italy); F. Auchere, J.-C. Vial (Institut d'Astrophysique Spatiale, Orsay, France); F. Berrilli (Universita degli Studi di Roma "Tor Vergata", Italy); V. Bommier (Observatoire de Paris, Meudon, France); A. Braukhane, H. Dittus, V. Maiwald, D. Quantius, O. Romberg, M. Schlotterer (DLR Institute of Space Systems, Bremen, Germany); R. Casini, S. Tomczyk (NCAR/HAO, Boulder, USA); J. Davila (NASA GSFC, Greenbelt, USA); A. Fludra, D. Griffin (Rutherford Appleton Laboratory, Didcot, UK); E. Landi Degl'Innocenti (Universita degli Studi di Firenze, Italy); R. Manso Sainz, V. Martinez Pillet, J. Trujillo Bueno (Instituto de Astrofisica de Canarias, Tenerife, Spain); S. Matthews (Mullard Space Science Laboratory, Dorking, UK); D. Moses (Naval Research Laboratory, Washington DC, USA); S. Parenti (Royal Observatory of Belgium, Brussels, Belgium); A. Pietarila (National Solar Observatory, Tucson, USA); N.-E. Raouafi (APL, Johns Hopkins University, Laurel, USA); J. Raymond (Smithsonian Astrophysical Observatory, Cambridge, USA); P. Rochus (Centre Spatial de Liège, Liège, Belgium); D. Spadaro (INAF Osservatorio Astrofisico di Catania, Italy).

***SPARK / ChromE***

Submitted to ESA.

A. Lagg, A. Gandorfer, H. Peter and D. Innes with S. Mathews (PI) (Mullard Space Science Lab, Dorking, UK) and others.

***Time-Domain Stellar Astrophysics***

Submitted to EU-FP7; not selected

L. Gizon with M. Monteiro (PI) (Centro de Astrofísica da Universidade do Porto, Portugal) and others.

***Using SDO/HMI Data to Investigate the Energization of the Coronal Magnetic Field***

Submitted to NASA; selected.

L. Gizon with G. Barnes (PI, NWRA/CoRA, Boulder, USA), A. Birch, K.D. Leka (NWRA, Boulder, USA), M. Wheatland (University Sydney), Peter Schuck (NASA)

## 2.2 Anträge auf Beobachtungszeit / *Observing time proposals*

### ***Activity of distant long period comets***

TNG (Telescopio Nazionale Galileo).

C. Snodgrass with E. Mazzotta Epifani, G. P. Tozzi.

### ***Asteroid 596 Scheila outburst or collision***

ESO (DDT).

C. Snodgrass (PI), C. Tubiana, H. Boehnhardt and J.-B. Vincent with B. Carry, A. Fitzsimmons, H. Hsieh, O. Hainaut, S. Lowry, S. Duddy.

### ***Confirmation of the first detection of HNC on Titan***

Herschel Space Observatory.

M. Rengel, P. Hartogh, and C. Jarchow with E. Lellouch, N. Biver, D. Bockelee-Morvan, R. Moreno, R. Courtin (LESIA, France); T. Cavalie (Obs. Bordeaux, France); L. Lara L. (IAA, Spain), D.C. Lis (Caltech, USA).

### ***Detection and characterization of comet 73P fragments***

Subaru Telescope.

H. Boehnhardt, C. Snodgrass, C. Tubiana, and J.-B. Vincent.

### ***Exploring the venusian mesospheric dynamics and chemistry with APEX***

APEX (Atacama Pathfinder Experiment).

P. Hartogh, M. Rengel, and C. Jarchow with H. Sagawa (NICT, Tokyo, Japan); R. Güsten (Max-Planck-Institut für Radioastronomie, Bonn, Germany).

### ***Fragments of comet 2P/Encke***

ESO.

C. Snodgrass (PI), C. Tubiana, H. Boehnhardt and J.-B. Vincent with R. Michelsen, H. Haack, A. Fitzsimmons, I. Williams.

### ***HCl, HF and H<sub>2</sub>O<sup>+</sup> in comets: probing solar nebula and coma chemistry***

Herschel Space Observatory.

M. Rengel, M. de Val-Borro and P. Hartogh with R D. Bockelee-Morvan, N. Biver, J. Crovisier, P. Encrenaz, R. Moreno (LESIA, France); J. Boissier (INAF, Arcetri, Italy); J. Cernicharo (DAMIR, Spain); S.B. Charnley, S.N. Milam (NASA, USA); M. Combi (U. Michigan, USA); M. Küppers, M. Kidger (ESAC, Spain); T. de Graauw (ALMA, Chile); H.S.P. Mueller (U. Köln, Germany); D.C. Lis, T.G. Phillips (Caltech, USA).

### ***HNC Submm Remote Sensing of the Titan Atmosphere in support of a Guaranteed Key Program on Herschel***

IRAM 30m.

M. Rengel and P. Hartogh with H. Sagawa (NICT, Tokyo, Japan).

### ***Is water ice common in the outer main asteroid belt?***

ESO.

C. Snodgrass (PI), C. Tubiana, and H. Boehnhardt with S. Protopapa, H. Hsieh, P. Vernazza.

### ***Obliquity and colour asymmetry of Kuiper belt contact binary 2001 QG298***

ESO.

C. Snodgrass with P. Lacerda.

### ***Physical properties of asteroids from observation of their lightcurves***

LCOGT (Las Cumbres Observatory Global Telescope).

C. Snodgrass (PI) with B. Carry, T. Lister.

***Probing the atmospheres of Uranus, Neptune and Titan with CH<sub>4</sub> lines***

Herschel.

M. Rengel, P. Hartogh, and C. Jarchow with E. Lellouch, R. Moreno, R. Courtin (LESIA, France); T. Cavalie (Obs. Bordeaux, France); H. Feuchtgruber (MPE, Germany).

***Probing the Enceladus torus with Herschel***

Herschel.

M. Rengel, P. Hartogh, and C. Jarchow with E. Lellouch, N. Biver, D. Bockelee-Morvan, J. Crovisier, R. Moreno (LESIA, France); T. Cavalie (Obs. Bordeaux, France); H. Feuchtgruber (MPE, Germany).

***Rotationally-resolved spectroscopy of Chariklo with SOFI - where is the water?***

ESO.

C. Snodgrass with B. Carry, A. Alvarez-Candal.

***Seasonal variability of hydrogen peroxide in the martian atmosphere***

APEX.

P. Hartogh, M. Rengel, and C. Jarchow with H. Sagawa (NICT, Tokyo, Japan); R. Güsten (Max-Planck-Institut für Radioastronomie, Bonn, Germany).

***The Atmosphere Above a Sunspot Umbra***

CARMA.

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

***The nucleus of 17P/Holmes, source of a large unexplained outburst***

ESO.

C. Snodgrass (PI) with A. Fitzsimmons, H. Hsieh, and S. Lowry.

***The opposition surge of 67P/Churyumov-Gerasimenko***

ESO.

H. Boehnhardt, H. Sierks, C. Snodgrass, C. Tubiana, and J.-B. Vincent with J. Agarwal, S. Lowry.

***The Solar phase functions of three comet nuclei***

ESO.

C. Snodgrass (PI) and C. Tubiana.

***Verification of Parentage of Unbound Asteroid Pairs***

ESO.

C. Snodgrass with S. Duddy, P. Lacerda, H. Hsieh, A. Fitzsimmons, S. Lowry.

### 3. Publikationen / *Publications*

#### 3.1 Referierte Publikationen / *Refereed publications*

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

- Afram, N., Y. C. Unruh, S. K. Solanki, M. Schüssler, and S. K. Mathew*, A Comparison of Measured and Simulated Solar Network Contrast, in: *Solar and Stellar Variability: Impact on Earth and Planets. Proceedings of the International Astronomical Union* (edited by K. A. G., A. A. H., and R. J.-P.), vol. 264 of IAU Symposium, pp. 63–65, 2010.
- Agarwal, J., M. Mueller, W. T. Reach, M. V. Sykes, H. Boehnhardt, and E. Gruen*, The dust trail of comet 67P/Churyumov-Gerasimenko between 2004 and 2006, *Icarus*, 207, 992–1012, doi:10.1016/j.icarus.2010.01.003, 2010.
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**M. Drahus**, Microwave observations and modeling of the molecular coma in comets, Doktorarbeit, Georg-August-Universität Göttingen, Berlin, 2010.

**P. Kobel**, Center-to-limb investigations of solar photospheric magnetic features at high spatial resolution, Doktorarbeit, Georg-August-Universität Göttingen, Berlin, 2010.

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**M. Lippi**, The composition of cometary ices as inferred from measured production rates of volatiles, Doktorarbeit, Technische Universität Braunschweig, Berlin, 2010.

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#### 4. Vorträge und Poster / *Talks and posters*

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

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N. Andre, S. B. R. Allieux, C. B. A. Fedorov, P. Louarn, **N. Krupp**, C. Paranicas, and J.-E. Wahlund, Identification of Ganymede's magnetospheric regions and associated plasma processes: Synopsis of Galileo multiple flyby observations, EJSM science Workshop, ESTEC, Noordwijk, NL, May 17-19, 2010. (Oral)

**A. Angsmann**, **E. Dubinin**, **M. Fraenz**, **J. Woch**, S. Barabash, M. Paetzold, and T. Zhang, Structure and dynamics of the ionosphere of Venus, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)

**A. Angsmann**, **M. Fraenz**, **E. Dubinin**, **J. G. Woch**, **N. Krupp**, S. Barabash, M. Paetzold, T. Zhang, and U. M. Motschmann, Structure and Dynamics of the Upper Ionosphere of Venus, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Oral)

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J. Araneda, Y. Maneva, and **E. Marsch**, Ion heating and acceleration by trapping in parametrically unstable Alfvén-cyclotron waves in the solar wind, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)

J. Ballot, **L. Gizon**, R. Samadi, G. Vauclair, T. Appourchaux, M. Auvergne, A. Baglin, F. Baudin, O. Benomar, H. Bruntt, T. L. Campante, C. Catala, W. J. Chaplin, S. Deheuvels, N. Dolez, R. A. García, P. Gaulme, S. Mathur, E. Michel, B. Mosser, C. Régulo, I. W. Roxburgh, D. Salabert, **T. Stahn**, G. A. Verner, and the rest of CoRoT data analysis team, CoRoT observations of solar-like oscillations in the overmetallic cool dwarf HD52265, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)

**M. Bárta**, **J. Büchner**, and M. Karlický, Spontaneous current sheet fragmentation and particle acceleration in cascading magnetic reconnection in solar flares, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)

**M. Bárta**, **J. Büchner**, M. Karlický, H. Auräß, and G. Mann, Radio manifestation of plasmoid merging - observation vs. modelling, CESRA Workshop 2010, La-Roche-en-Ardenne, June 14-19, 2010. (Oral)

**M. Barta**, **J. Büchner**, and K. M., Plasmoid/plasmoid and plasmoid/loop-top interactions in solar flares, Annual Meeting of the German Physical Society, Bonn, March 20, 2010. (Oral)

**P. Barthol**, Successful flight of the SUNRISE balloon-borne stratospheric solar observatory, SPIE Astronomical Telescopes and Instrumentation, San Diego, CA, USA, June 28, 2010. (Oral)

**P. Barthol**, SUNRISE: High resolution imaging and polarimetry with a balloon-borne stratospheric solar observatory, Astrophysikalisches Kolloquium, Kiepenheuer Institut, April 29, 2010. (Oral)

**Z. Bebesi**, Energetic electron absorption in the upper atmosphere of Titan, CASSINI/MAPS Workshop 2010, CIAS, Observatoire de Meudon, France, April 7-9, 2010.

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**Z. Bebesi**, **N. Krupp**, K. Szego, Z. Nemeth, G. Erdos, M. Fraenz, S. M. Krimigis, D. G. Mitchell, D. T. Young, and M. K. Dougherty, Distribution of high energy electron drop-outs in the upper atmosphere of Titan, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)

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- H. Boehnhardt**, Stardust, DeepImpact und Rosetta - Kometenforschung heute und in 5 Jahren, Astronomie-stiftung Trebur, Trebur, Sep 24, 2010. (Oral)
- B. Boncho, H. Böhnhardt, M. J. Mumma, M. A. DiSanti, G. L. Villanueva, M. Lippi, and E. L. Gibb**, Detections of Ethane (C<sub>2</sub>H<sub>6</sub>), Methane (CH<sub>4</sub>), and Carbon Monoxide (CO) in the Coma of Comet C/2006 W3 (Christensen) at 3.25 AU from The Sun, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, Pasadena, CA, USA, Oct 3-8, 2010. (Poster)
- B. Bonev, H. Boehnhardt, M. A. Mumma, M. J. and DiSanti, G. L. Villanueva, M. Lippi, and E. L. Gibb**, Detections of Ethane (C<sub>2</sub>H<sub>6</sub>), Methane (CH<sub>4</sub>), and Carbon Monoxide (CO) in the Coma of Comet C/2006 W3 (Christensen) at 3.25 AU from The Sun, American Astronomical Society, DPS meeting #42, Pasadena, Oct 3-8, 2010. (Oral)
- P.-A. Bourdin**, Denoising observational data, EAST Workshop on Solar Physics "Science with Synoptic Solar Telescopes", Tatranska Lomnica, Slovakia, October 4-7, 2010. (Oral)
- P.-A. Bourdin, S. Bingert, and H. Peter**, Spectroscopic EUV data as a test for a 3D MHD model of the corona, Hinode-4 meeting, Palermo, Italy, October 11-15, 2010. (Poster)
- S. Bourouaine**, Turbulence and Ion Kinetics of Solar Wind Plasma, Seminar, Johns Hopkins university Applied Physics Laboratory (JHUAPL), December 9, 2010, (invited). (Oral)
- S. Bourouaine and E. Marsch**, Multi-strand coronal loop model, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)
- S. Bourouaine and E. Marsch**, Multi-strand Coronal Loop Model and Filter-ratio analysis, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010.
- S. Bourouaine and E. Marsch**, Multi-strand coronal loop model and the filter-ratio analysis, Frühjahrstagung 2010 der DPG gemeinsam mit der AEF und AG, Bonn, Marsch, 15-19, 2010, (Poster)
- S. Bourouaine, E. Marsch, and F. M. Neubauer**, On the interactions of transverse ion-cyclotron waves with ions in solar wind plasma, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Oral)
- S. Bourouaine, E. Marsch, and C. Vocks**, Semi-Kinetic Coronal Loop Model, Frühjahrstagung 2010 der DPG gemeinsam mit der AEF und AG, Bonn, Marsch, 15-19, 2010, (Oral)



- P. C. Brandt, D. G. Mitchell, B. H. Mauk, and **N. Krupp**, Global magnetospheric dynamics of Jupiter and Saturn revealed by ENA imaging, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- P. C. Brandt, D. G. Mitchell, B. H. Mauk, C. Paranicas, and **N. Krupp**, Global ENA Imaging of the Jovian Magnetosphere: A Tool for Global Exploration of the Giant Accelerator of Energetic Particles and Their Interaction with the Torus Region and Moons, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Oral)
- P. C. Brandt, D. G. Mitchell, C. P. Paranicas, B. H. Mauk, and **N. Krupp**, Global ENA Imaging of the Jovian Magnetosphere: A tool for global exploration of the giant accelerator & its with the torus region & moons, EJSM science Workshop, ESTEC, Noordwijk, NL, May 17-19, 2010. (Oral)
- J. Büchner, Collisionless reconnection in space and solar physics, International Workshop "Gyrokinetics", Wolfgang-Pauli Institut, Wien, March 24, 2010, invited Lecture. (Oral)
- J. Büchner, Consequences of magnetic reconnection in the Sun, International Space Plasma Symposium, National Cheng Kung University, Tainan, Taiwan, May 27-30, 2010, invited Review Lecture.
- J. Büchner, Kinetic processes in solar and stellar coronae from micro turbulence to large scale reconnection, Advances in Plasma Astrophysics, 274 IAU Symposium, Giardini-Naxos, September 5-10, 2010, invited review Lecture.
- J. Büchner, Large scale structure formation by small-scale plasma turbulence, Self-Organization in Turbulent Plasmas and Fluids Workshop, Max-Planck-Institut für Physik komplexer Systeme, Dresden, May 10-14, 2010, invited Lecture.
- J. Büchner, Magnetic Reconnection in the Sun, Institute Colloquium, Kyung Hee University, July 6, 2010, colloquium Talk.
- J. Büchner, MHD and kinetic aspects of 3D reconnection at the Sun, Workshop on Magnetic Reconnection MR2010, Nara, Japan, December 6 - 9, 2010, invited Review Lecture.
- J. Büchner, Modelling 3D reconnection in the solar atmosphere, 7th International Cambridge Workshop on Magnetic Reconnection, St. Andrews, UK, August 17th, 2010, invited Lecture.
- J. Büchner, Modelling and simulation of reconnection at the Sun, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010, invited review Lecture.
- J. Büchner, Simulation of the solar corona coupled with the chromosphere, Glasgow Astronomy and Astrophysics seminar, University of Glasgow, UK, August 26th, 2010, invited Lecture.
- J. Büchner, What is driving the Solar atmosphere? RHMD and kinetic simulation results, University Colloquium, Universität Wien, March 22, 2010, 2010, invited Lecture.
- J. Büchner, What is driving the Solar atmosphere? RHMD and kinetic simulation results, Astrophysical Colloquium, Catania Astrophysical Observatory and University of Catania, September 17, 2010, invited Lecture.
- J. Büchner, J. Santos, and A. Otto, Fields and flows around three-dimensional magnetic reconnection, Annual Meeting of the German Physical Society, Bonn, March 18, 2010. (Oral)
- R. Bučík, U. Mall, A. Korth, and G. M. Mason, STEREO observations of the energetic heavy ions during the minimum of solar cycle 23, ICATPP Conference on Cosmic Rays for Particle and Astroparticle Physics, Como, Italy, October 7-8, 2010, invited. (Oral)
- R. Bučík, U. Mall, A. Korth, and G. M. Mason, STEREO observations of the influence of the HCS on energetic ions in CIRs, Joint meeting of the ACE/SOHO/STEREO/WIND Spacecraft Teams, Kennebunkport, ME, USA, June 8-11, 2010. (Oral)

- R. Bučik, U. Mall, A. Korth, and G. M. Mason**, The relation between energetic CIR ions at 1 AU and the Sun's magnetic field from STEREO observations, 21st STEREO Working Group Meeting, Trinity College Dublin, Ireland, March 22-26, 2010. (Oral)
- R. Burston**, PLATO data center, 4th CoRoT Brazil Workshop, Natal-RN, Brazil, November 28 - December 1, 2010. (Oral)
- R. Burston, L. Gizon, and A. C. Birch**, Travel-time sensitivity kernels for density, pressure, and sound-speed perturbations, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010, contributed talk. (Oral)
- R. Cameron, J. Jiang, D. Schmitt, and M. Schuessler**, The solar cycle and the current solar minimum, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010.
- R. Cameron, H. Schunker, and L. Gizon**, Sunspot seismology: forward modelling of subsurface structure, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- H. Cao, C. T. Russell, U. R. Christensen, and M. K. Dougherty**, Saturn's very axisymmetric magnetic field: New upper limit on the dipole tilt and implications for the interior of the planet, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- J. F. Carbary, D. G. Mitchell, E. Roelof, C. Paranicas, S. M. Krimigis, N. Krupp, D. C. Hamilton, and M. K. Dougherty**, Magnetospheric Periodicities at Saturn Equinox, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- T. Cavalie, N. Biver, P. Hartogh, M. Dobrijevic, F. Billebaud, E. Lellouch, A. Sandqvist, J. Brillet, A. Lecacheux, A. Hyalmarson, U. Frisk, and M. Olberg**, Monitoring of Water Vapor in the Stratosphere of Jupiter with the Odin Space Telescope, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- T. Cavalié, P. Hartogh, E. Lellouch, R. Moreno, C. Jarchow, F. Billebaud, G. Orton, M. Rengel, H. Sagawa, L. Lara, A. Gonzalez, and the HssO Team**, Mapping water in Jupiter with Herschel/HIFI, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)
- G. Chanteur, E. Dubinin, R. Modolo, and M. Fraenz**, Capture of solar wind alpha-particles by the Martian atmosphere, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)
- U. R. Christensen**, Die Geschwister der Erde - Von Eislandschaften und Riesenvulkanen, OktoberMusikFest 2010, Bayerische Staatsoper, München, November 6, 2010, invited. (Oral)
- U. R. Christensen**, Die ungleichen Geschwister der Erde — Planetenforschung heute, Kulturhistorisches Museum, Magdeburg, September 23, 2010, invited. (Oral)
- U. R. Christensen**, Die ungleichen Geschwister der Erde — Planetenforschung heute, Naturwissenschaftliche Vortragsreihe, GDA Göttingen, January 30, 2010. (Oral)
- U. R. Christensen**, Geodynamo modeling, 12th Symposium of SEDI (Study of Earth's Deep Interior), University of California, Santa Barbara, CA, USA, July 18-23, 2010, invited. (Oral)
- U. R. Christensen**, How to make an Earth-like geodynamo model, Beijing Earth & Planetary Interior Symposium (BEPIS) "Earth's and Planetary Interiors: Observations and Numerical Models of Paleomagnetism and Planetary Magnetism", Beijing, China, July 7-11, 2010, invited. (Oral)
- U. R. Christensen**, Mode selection in MHD models of planetary dynamos, Self-Organization in Turbulent Plasmas and Fluids Workshop, Max-Planck-Institut für Physik komplexer Systeme, Dresden, May 10-14, 2010, invited. (Oral)
- U. R. Christensen**, Planetare Dynamos, Geophysikalisch-Meteorologisches Kolloquium, Institut für Geophysik und Meteorologie der Universität zu Köln, January 18, 2010, invited. (Oral)

- U. R. Christensen, W. Dietrich, K. Hori, J. Wicht, H. Amit, and B. Langlais**, Magnetic fields and dynamos in terrestrial planets, invited, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Oral)
- U. R. Christensen and J. Wicht**, Cause of dipole breakdown and reversals in geodynamo models, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Oral)
- U. R. Christensen and J. Wicht**, Cause of dipole breakdown and reversals in geodynamo models, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Oral)
- U. R. Christensen, J. Wicht, K. Hori, and W. Dietrich**, Magnetic field generation of Earth-like planets, 3rd Alliance Week, DLR Berlin, March 8-12, 2010. (Oral)
- H. Cottin, B. Arezki, B. J., A. Bouabdellah, A. Boukrara, C. Briois, N. Carrasco, N. Gilbert, C. Engrand, N. Grand, M. Hilchenbach, H. Krüger, A. Makarov, C. Pennanech, P. Puget, E. Quirico, C. Szopa, L. Thirkell, P. Zapf, and R. Thissen**, ILMA: Ion Laser Mass Analyser. A Mass-Spectrometer for In-Situ Characterization of a Near Earth Object (NEO), 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- R. D. Courtin, B. M. Swinyard, T. Fulton, E. Lellouch, R. Moreno, P. Hartogh, C. Jarchow, M. Rengel, and the HssO Team**, First Observations Of Titan With Herschel Spire, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)
- J. Crovisier, P. Hartogh, D. Bockelée-Morvan, M. de Val-Borro, and the HssO-Team**, Observations of comets with the Herschel Space Observatory, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- W. Curdt, E. Marsch, and H. Tian**, The coronal convection, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- W. Curdt, H. Tian, and E. Marsch**, The coronal convection, Xth Hvar Astrophysical Colloquium—The Active Sun, Town Loggia, Hvar, Croatia, Sept. 6-10, 2010, invited talk. (Oral)
- A. Czechowski, M. Hilchenbach, K. C. Hsieh, and S. Grzedzielski**, Energetic Ions and the Observations of the Heliosheath by means of ENA, 9th Annual International Astrophysics Conference, Maui, USA, March 14 - 19, 2010. (Oral)
- N. Dadashi, L. Teriaca, and S. K. Solanki**, The average Doppler shift of coronal lines on the quiet Sun, Hinode-4: unsolved problems and recent insights, Mondello, Palermo, Italy, October 11-15, 2010. (Poster)
- P. W. Daly**, RAPID Report, 50th Cluster Science Working Team Meeting, Poiana Brasov, Romania, May 18, 2010. (Oral)
- P. W. Daly and E. Kronberg**, RAPID calibration report, 11th CAA Cross-Calibration meeting, Goslar, Germany, April 7-9, 2010. (Oral)
- P. W. Daly and E. Kronberg**, RAPID Data Products at CAA, Cluster 10th Anniversary Workshop, Korfu, Greece, Sept. 26 - Oct. 1, 2010. (Poster)
- M. Dasi-Espuig, J. Jiang, N. Krivova, and S.K. Solanki**, Modelling total solar irradiance with the use of a flux transport model, Eddy cross-disciplinary symposium on Sun-Climate Research, Aspen, Colorado, US, Oct 22-24, 2010, poster.
- S. Dasso, A. M. Gulisano, P. Demoulin, and E. Marsch**, Analysis of magnetic clouds evolution from 0.3 to 5 astronomical units, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)
- A. De Lucas, A. Dal Lago, R. Schwenn, A. Lua De Gonzalez, and E. Marsch**, Multi-spacecraft observation of a magnetic cloud, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)

- M. de Val-Borro, P. Hartogh, J. Crovisier, D. Bockelée-Morvan, N. Biver, D. C. Lis, R. Moreno, C. Jarchow, M. Rengel, S. Szutowicz, and the HssO Team**, Detection of Water Vapor in Comet 81P/Wild2 by Herschel, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)
- M. de Val-Borro, C. Jarchow, and P. Hartogh**, A Numerical Model of Line Emission in Comet Atmospheres, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- M. de Val-Borro, C. Jarchow, P. Hartogh, G. Villanueva, and M. Küppers**, Constraining Volatile Abundances in Comet C/2004 Q2 (Machholz), Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- W. Dietrich, J. Wicht, and U. Christensen**, Lateral core heat flux variations as a model for Martian paleomagnetic field, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)
- W. Dietrich, J. Wicht, and U. R. Christensen**, Lateral core mantle boundary heat flux variations as a model of Martian paleomagnetic field, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- W. Dietrich, J. Wicht, and U. R. Christensen**, Lateral core mantle boundary heat flux variations as a model of Martian paleomagnetic field, Geodynamics Workshop 2010, Westfälische Wilhelms-Universität, Münster, October 6-8, 2010. (Oral)
- M. Drahus, L. Paganini, L. M. Ziurys, C. Jarchow, and P. Hartogh**, The outburst of comet 17P/Holmes at millimeter wavelengths, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- E. Dubinin**, Mechanisms of ion energization and escape processes on Mars and Venus, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Oral)
- E. Dubinin**, Plasma boundaries on Mars and open questions, ISSI Team "Comparative studies of induced magnetospheres", Bern, Switzerland, March 29- April 1, 2010. (Oral)
- E. Dubinin**, Processes of the momentum transfer and solar wind induced escape on Mars and Venus. Mutual lessons from different space missions (invited), AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Oral)
- E. Dubinin, M. Fraenz, A. Fedorov, S. Barabash, and R. Lundin**, Energization of ions and morphology of escape on Mars and Venus, 5th Alfvén Conference on plasma interaction with non-magnetized planets/moons and its influence on planetary evolution, Sapporo, Japan, October 4-8, 2010, invited. (Oral)
- E. Dubinin, M. Fraenz, J. Woch, F. Duru, D. Gurnett, A. Fedorov, S. Barabash, and R. Lundin**, Solar wind is a strong driver for variations in escape on Mars, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- E. Dubinin**, Some features and open questions of solar wind/Mars interaction, Mars Aeronomy network workshop, MPS, Katlenburg-Lindau, Germany, January 25-26, 2010. (Oral)
- C. Ejeta, H. Boehnhardt, S. Bagnulo, and G. P. Tozzi**, Spectropolarimetry of the two faces of Saturn's moon Iapetus, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- M. R. El Maarry, W. J. Markiewicz, M. Mellon, W. Goetz, and A. Pack**, Crater Floor Polygons (CFPs): Dessication traces of ancient Paleolakes on Mars?, Lunar and Planetary Science Conference, Houston, USA, March 1-5, 2010. (Oral)

- M. Fraenz, E. Dubinin, A. Angsmann, E. Nielsen, J. Woch, S. Barabash, R. Lundin, and A. Fedorov,** Cross-terminator ion flow in the ionospheres of Mars and Venus, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- M. Fränz, E. Dubinin, E. Nielsen, A. Angsmann, J. Woch, S. Barabash, R. Lundin, and A. Fedorov,** Cross-terminator flow in the ionosphere of Mars, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)
- M. Fränz, E. Dubinin, E. Nielsen, A. Angsmann, J. Woch, S. Barabash, R. Lundin, and A. Fedorov,** Trans-terminator flow in the ionosphere of Mars, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- E. Georgescu,** EDI Archiving Status Report, 11th CAA Cross-Calibration meeting, Goslar, Germany, April 7-9, 2010. (Oral)
- E. Georgescu,** EDI Status of Archiving and Calibration Activities, 5th CAA Operations Review, ESTEC, June 9, 2010. (Oral)
- E. Georgescu,** German Cluster Data Centre - Status Report, IWG-41, ESTEC, June 7, 2010. (Oral)
- E. Georgescu, P. Puhl-Quinn, H. Vaith, M. Chutter, and R. Torbert,** Electron Drift Instrument (EDI) data in the Cluster Active Archive, Cluster 10th Anniversary Workshop, Korfu, Greece, Sept. 26 - Oct. 1, 2010. (Poster)
- L. Gizon,** 3D imaging of the solar interior, Seminar, Observatoire Midi-Pyrénées, Toulouse, France, April 29, 2010, invited. (Oral)
- L. Gizon,** Helioseismologie: Mit den Schallschwingungen der Sonne sehen (in englischer Sprache), 7. Workshop "Kosmische Klänge im Harz", PhysikClub Kassel / SchülerForschungsZentrum Nordhessen SFN / Astronomischer Arbeitskreis Kassel AAK e.V. / Kinder- und Jugendakademie Kassel, Königskrug b. Braunlage, Germany, April 7, 2010. (Oral)
- L. Gizon,** Helioseismology with SDO, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010, invited talk. (Oral)
- L. Gizon,** Noise tomography of the Sun, Workshop: Inverse problems in helio- and geoseismology, Princeton Center for Theoretical Science, Princeton University, Princeton, USA, March 22-23, 2010, invited. (Oral)
- L. Gizon,** PLATO: PDAAS - structure and status, Workshop: 4th PLATO Data Center Meeting, Institute of Astronomy, University of Cambridge, Cambridge, UK, May 27-28, 2010, invited. (Oral)
- L. Gizon,** Report on HELAS NA4 activities, HELAS Board Meeting, Arrecife, Lanzarote, Spain, February 2, 2010. (Oral)
- L. Gizon,** Seismology of the Sun and Stars, Workshop "Innovative Approaches to Planetary Seismology", Keck Institute for Space Studies, Pasadena, CA, USA, March 17, 2010, invited open lecture. (Oral)
- L. Gizon,** Seismology of the Sun and Stars, Third Algerian Workshop on Astronomy & Astrophysics, Constantine, Algeria, June 16-17, 2010, invited. (Oral)
- L. Gizon,** Subsurface structure of sunspots, IAU Symposium 273: Physics of Sun and Star Spots, Ventura, CA, USA, August 22-26, 2010, invited review talk. (Oral)
- L. Gizon, J. Ballot, C. Catala, T. Stahn, G. Vauclair, T. Appourchaux, M. Auvergne, A. Baglin, F. Baudin, O. Benomar, H. Bruntt, T. L. Campante, W. J. Chaplin, S. Deheuvels, N. Dolez, R. A. García, P. Gaulme, S. Mathur, E. Michel, B. Mosser, C. Régulo, I. W. Roxburgh, D. Salabert, R. Samadi, G. A. Verner, and the other members of the CoRoT Data Analysis Team,** Asteroseismic constraint on the mass of the planet orbiting the CoRoT Sun-like star HD 52265, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)

- L. Gizon** and A. C. Birch, A new method to compute sensitivity kernels for local helioseismology, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- L. Gizon**, **H. Schunker**, and **Y. Saiti**, HELAS Local Helioseismology Activities, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- L. Gizon** and the PDAAS Assessment Study Team, PLATO Data Acquisition and Analysis System, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- A. González**, **P. Hartogh**, and **L. Lara**, Photochemistry in the Jovian atmosphere, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- S. Haaland**, **L. Degener**, **E. A. Kronberg**, **P. W. Daly**, and **M. Fraenz**, Oxygen abundance in the Earth's plasma sheet: Statistical results from 7 years of Cluster data, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)
- S. Haaland**, **E. Engwall**, **A. Eriksson**, **M. Forster**, **B. Lybekk**, **H. Nilsson**, **A. Pedersen**, and **K. Svenes**, A better estimate of the net plasma loss from ionospheric outflow, Cluster 10th Anniversary Workshop, Korfu, Greece, Sept. 26 - Oct. 1, 2010. (Poster)
- S. Haaland**, **E. Engwall**, **A. Eriksson**, **M. Förster**, **B. Lybekk**, **A. Pedersen**, and **K. Svenes**, Estimating the net plasma loss from ionospheric outflow, 19th Cluster Workshop, Posaia Brasov, Romania, May 17-22, 2010.
- S. Haaland**, **E. Engwall**, **A. I. Eriksson**, **H. Nilsson**, **M. Foerster**, **B. Lybekk**, **K. Svenes**, and **A. Pedersen**, Estimating the Circulation and Net Plasma Loss from Ionospheric Outflow, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- J.-P. Halain**, **Y. Houbrechts**, **F. Auchère**, **P. Rochus**, **T. Appourchaux**, **D. Berghmans**, **U. Schühle**, **L. Harra**, **E. Renotte**, and **A. Zuhov**, The Solar Orbiter EUI Instrument Optical Developments, International Conference on Space Optics (ICSO), Rhodes, Greece, October 4-8, 2010. (Oral)
- K. Hallgren**, **P. Hartogh**, and **C. Jarchow**, Middle atmospheric water vapor measurements by ground-based microwave spectroscopy. — A first result in the Schneefernerhaus-Alomar collaboration?, Berlin symposium on the German-Norwegian Atmosphere and Space collaboration., Berlin, March 10-11, 2010. (Oral)
- K. Hallgren**, **P. Hartogh**, and **C. Jarchow**, Observations of tidal behavior in mesospheric water vapor at mid- and high latitudes, STP-12, Berlin, July 12-16, 2010. (Poster)
- K. Hallgren**, **P. Hartogh**, and **C. Jarchow**, Variability of middle atmospheric water vapor at different timescales, Colloquium, IAP Kuhlungsborn, April 15, 2010. (Oral)
- S. M. Hanasoge**, Adjoint noise tomography of the Sun and the Earth and unrelated miscellany, Special MPS seminar, Katlenburg-Lindau, May 12, 2010. (Oral)
- S. M. Hanasoge**, A wave scattering theory of solar seismic haloes, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010, contributed talk. (Oral)
- P. Hartogh**, First Herschel results, National Institute for Information and Communications Technology, Koganei, Tokio, Japan, September 27, 2010, invited. (Oral)
- P. Hartogh**, First Results of the Herschel Guaranteed Time Key Program "Water and related chemistry in the solar system", 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010, plenary talk.

- P. Hartogh***, Herschel Mission Part I: First Results Of The HssO Key Program, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010, plenary talk. (Oral)
- P. Hartogh***, Microwave remote sensing of the Earth, planets and comets, 2010 Asia-Pacific Radio Science Conference, Toyama, Japan, September 22-26, 2010, invited. (Oral)
- P. Hartogh***, Submillimetre Instrument for EISM, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- P. Hartogh***, *S. Barabash, S. Bolton, G. Chin, K. Gulkis, J.-M. Krieg, E. Lellouch, A. Murk, and the EISM-SWI Team*, EISM-Submillimetre Wave Instrument, 3rd EISM Instrument Workshop, ESTEC Noordwijk, 18-20 January, 2010. (Oral)
- P. Hartogh***, *S. Barabash, S. Bolton, G. Chin, S. Gulkis, J.-M. Krieg, E. Lellouch, A. Murk, and the EISM-SWI Team*, EISM-Submillimetre Wave Instrument, 3rd EISM Instrument Workshop, ESTEC, Noordwijk, NL, 18-20 January, 2010.
- P. Hartogh***, *J. Crovisier, M. de Val-Borro, D. Bockelée-Morvan, N. Biver, D. C. Lis, R. Moreno, C. Jarchow, M. Rengel, M. Emprechtinger, S. Szutowicz, M. Banaszekiewicz, F. Bensch, M. I. Blecka, T. Cavalie, T. Encrenaz, E. Jehin, M. Küppers, L.-M. Lara, E. Lellouch, B. Swinyard, B. Vandenbussche, E. A. Bergin, G. A. Blake, J. Blommaert, J. Cernicharo, L. Decin, P. Encrenaz, T. de Graauw, D. Hutsemekers, M. Kidger, J. Manfroid, A. S. Medvedev, D. A. Naylor, R. Schieder, N. Thomas, C. Waelkens, P. R. Roelfsema, P. Dieleman, R. Güsten, T. Klein, C. Kasemann, M. Caris, M. Olberg, and A. O. Benz*, HIFI Observations of Comet C/2008 Q3 (Garradd), Herschel First Results Workshop, ESTEC, Noordwijk, NL, 4-7 May, 2010. (Oral)
- P. Hartogh***, *J. Crovisier, and E. Lellouch*, First Results on Outer Planets Observations with Herschel, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- P. Hartogh***, *J. Crovisier, E. Lellouch, M. Banaszekiewicz, F. Bensch, E. A. Bergin, F. Billebaud, N. Biver, G. A. Blake, M. I. Blecka, J. Blommaert, D. Bockelee-Morvan, T. Cavalie, J. Cernicharo, R. Courtin, G. Davis, L. Decin, M. Emprechtinger, P. Encrenaz, T. Encrenaz, H. Feuchtgruber, T. Fulton, A. González, T. de Graauw, D. Hutsemekers, C. Jarchow, E. Jehin, M. Kidger, M. Küppers, L.-M. Lara, S. Leeks, D. C. Lis, R. Lorente, J. Manfroid, A. S. Medvedev, R. Moreno, D. A. Naylor, G. Orton, G. Portyankina, M. Rengel, H. Sagawa, M. Sánchez-Portal, R. Schieder, S. Sidher, D. Stam, B. Swinyard, S. Szutowicz, N. Thomas, M. de Val-Borro, B. Vandenbussche, E. Verdugo, C. Waelkens, and H. Walker*, HssO PSP-Results, HIFI Primary Science Programme Workshop, Leiden, NL, 12-13 April, 2010.
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- P. Hartogh***, *K. Hallgren, and C. Jarchow*, The new MPS water vapour spectrometer: first results, ASAC-Meeting, Norderstedt, 23-24 March, 2010. (Oral)
- P. Hartogh***, *K. Hallgren, and C. Jarchow*, WASPAM - Status, ASAC-Meeting, Norderstedt, 23-24 March, 2010. (Oral)
- P. Hartogh*** and ***C. Jarchow***, Planetary Science with GREAT, First SOFIA Science Preparation Meeting, MPIfR, Bonn, 14-15 April, 2010. (Oral)
- P. Hartogh***, ***C. Jarchow***, *B. M. Swinyard, E. Lellouch, M. Blecka, M. de Val-Borro, M. Rengel, R. Moreno, S. Sidher, H. Feuchtgruber, H. Sagawa, G. Portyankina, and the HssO Team*, Herschel Space Observatory Observations Of Mars: First Results, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)

- P. Hartogh**, *B. Swinyard, M. Blecka, C. Jarchow, E. Lellouch, H. Sagawa, H. Feuchtgruber, and G. Portyankina*, First Herschel results on Mars, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- P. Hartogh** and the Hsso Team, First results of the HssO key programme, 38th COSPAR Scientific Assembly, Bremen, Germany, 18-25 July, 2010. (Oral)
- J. He, E. Marsch, C. Tu, and H. Tian**, Upward propagation and subsequent steepening of transverse waves launched by small-scale reconnection in the chromosphere, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- J. He, E. Marsch, C. Tu, H. Tian, L. Guo, W. Curdt, L. Xia, and S. Kamio**, A new view of solar wind origin near active regions and in polar coronal holes on the basis of Hinode observations, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)
- J. He, E. Marsch, C. Tu, Q. Zong, H. Tian, and L. Guo**, Reconstruction of reconnecting magnetic field in both solar corona and geo-magnetosphere and its application to reconnection diagnosis, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- M. Hilchenbach**, Comets in the Main Belt Astroid Belt, Workshop der Leibniz Universität Hannover, Institut für Quantenoptik, Haus Schnede, Salzhausen, Sep 13-17, 2010. (Oral)
- M. Hilchenbach**, ENA observations: The view from higher energies, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- M. Hilchenbach**, Envisaged secondary ion mass spectrometry of cometary grains in the vicinity of a comet, AOGS 2010 (Asia Oceania Geosciences Society) - 7th Annual General Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- M. Hilchenbach**, Main Belt Comets neue Kometen ?, Bad Honnefer Winterseminar Kometen, Bad Honnef, Jan 13-15, 2010. (Oral)
- M. Hilchenbach**, Neue Technologien für die Erforschung des Weltraums, 23. Raumfahrt-Kolloquium an der FH Aachen, Neue Technologien für die Erforschung des Weltraums, Aachen, Nov 18, 2010. (Oral)
- M. Hilchenbach** and *A. Czechowski*, Observations of neutral energetic atoms from the heliotail direction at 1 AU, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)
- M. Hilchenbach, R. Kallenbach, K. C. Hsieh, and A. Czechowski**, Energetic Neutral Atoms from the Heliotail Direction and their Potential Source Regions, 9th Annual International Astrophysics Conference, Maui, USA, March 14 - 19, 2010. (Oral)
- M. Hilchenbach** and *J. Kissel*, Potential observations of attogram dust at 67P/Churyumov-Gerasimenko, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- M. Hilchenbach, J. Kissel, H. Krüger, C. Briois, Y. Langevin, R. Schulz, and J. Silen**, COSIMA onboard ROSETTA A SIMS instrument in the vicinity of a comet in 2014/2015, Dusty Visions, Goettingen, Germany, July 14-16, 2010. (Poster)
- M. Hilchenbach**, *T. Lang, J. Neumann, and N. Tarcea*, Analysis of Mineral Soil Analog Samples with a Pulsed UV-Laser Source, 41st Lunar and Planetary Science Conference, Houston, March 1-5, 2010. (Poster)
- K. Hori, U. R. Christensen, and J. Wicht**, The influence of fixed flux conditions on convections and dynamos, Geodynamics Workshop 2010, Westfälische Wilhelms-Universität, Münster, October 6-8, 2010. (Oral)



- K. Hori, J. Wicht, and U. R. Christensen**, The influence of heat flux boundary conditions on length scale in dynamo simulations, 12th Symposium of SEDI (Study of Earths Deep Interior), University of California, Santa Barbara, CA, USA, July 18-23, 2010. (Poster)
- K. C. Hsieh, J. Giacalone, A. Czechowski, M. Hilchenbach, S. Grzedzielski, J. Kota, and D. R.**, The Return of the Pick-up Ions and the Thickness of the Heliosheath, 9th Annual International Astrophysics Conference, Maui, USA, March 14 - 19, 2010. (Oral)
- I. G. Irastorza, T. I. Rashba, et al.**, Latest results and prospects of the CERN Axion Solar Telescope, 5th Symposium on Large TPCs for Low Energy Rare Event Detection, Paris, France, December 14-17, 2010. (Oral)
- C. Jarchow, P. Hartogh, E. Lellouch, R. Moreno, H. Feuchtgruber, T. Cavalie, and the Hsso Team**, Vertical Water Vapor Distribution In The Atmospheres Of Uranus And Neptune As Obtained From Herschel Observations, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Poster)
- S. Javadi, J. Büchner, A. Otto, and J. C. Santos**, Relative importance of compressional heating and current dissipation for the formation of coronal X-ray bright points, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010.
- S. Javadi, J. Büchner, and J. C. Santos**, Influence of radiative loss and heat conduction on the temperature variation in a coronal bright point, Annual Meeting of the German Physical Society,, Bonn, Germany, March 18, 2010.
- J. Jing, C. Tan, Y. Yuan, B. Wang, T. Wiegelmann, Y. Xu, and H. Wang**, Free Magnetic Energy and Flare Productivity of Active Regions, AAS 216th Meeting, Miami, USA, May 23-27, 2010. (Poster)
- G. H. Jones, E. Roussos, N. Krupp, S. M. Krimigis, and D. G. Mitchell**, First results from Cassini's 2010 close encounter with Rhea, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)
- M. Kadowaki, A. Medvedev, P. Hartogh, and M. Takahashi**, Simulation of Dust Storms on Mars with a General Circulation Model, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- S. Kamio**, Correcting spectral drift by instrumental temperatures, EIS team meeting, Mullard Space Science Laboratory, UK, Feb 23-24, 2010. (Oral)
- S. Kamio and W. Curdt**, Lyman-alpha observations by SUMER, CLASP team meeting, Palermo, Italy, Oct 16, 2010. (Oral)
- S. Kamio, W. Curdt, L. Teriaca, and D. E. Innes**, Impulsive heating of bright points observed by EIS and SUMER, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- S. Kamio, W. Curdt, and T. Wiegelmann**, Structures of hot and cool loops in an active region, Hinode-4 meeting, Palermo, Italy, Oct 11-15, 2010. (Poster)
- P. Kollmann, N. Krupp, K.-H. Glaßmeier, E. Roussos, C. Paranicas, and S. M. Krimigis**, Energetic particles in Saturn's dipolar region from MIMI/LEMMS, Cassini MAPS Workshop, Meudon, France, April 6-9, 2010. (Oral)
- P. Kollmann, E. Roussos, C. Paranicas, N. Krupp, K.-H. Glaßmeier, and S. M. Krimigis**, Interaction of energetic particles with the E-ring, Cassini PSG meeting, Munich, Germany, June 7-11, 2010. (Oral)
- P. Kollmann, E. Roussos, C. Paranicas, N. Krupp, K.-H. Glaßmeier, and S. M. Krimigis**, Long-term average of energetic particle phase space densities in Saturn's magnetosphere, Cassini PSG meeting, Munich, Germany, June 7-11, 2010. (Oral)
- P. Kollmann, E. Roussos, C. Paranicas, N. Krupp, K.-H. Glaßmeier, and S. M. Krimigis**, Long-term average of energetic particle phase space densities in Saturn's magnetosphere, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)

- E. Kronberg, R. Bučík, S. Haaland, B. Klecker, K. Keika, M. Desai, P. W. Daly, M. Yamauchi, R. Gomez-Herrero, and A. Lui**, On the origin of the energetic ion events measured upstream the Earth's bow shock by STEREO, Cluster and Geotail, Western Pacific Geophysics Meeting, Taipei, Taiwan, June 22-25, 2010. (Poster)
- E. Kronberg and P. Daly**, Annual Report of the RAPID Experiment for the 5th Operations Review of the Cluster Active Archive (CAA), The 5th Operations Review of the Cluster Active Archive, Noordwijk, Netherlands, June 9, 2010. (Oral)
- E. Kronberg and P. W. Daly**, RAPID status report, 11th CAA Cross-Calibration meeting, Goslar, Germany, April 7-9, 2010.
- E. Kronberg, P. W. Daly, and R. Friedel**, Inter-spacecraft calibration: Cluster/RAPID and POLAR/CEPPAD, 11th CAA Cross-Calibration meeting, Goslar, Germany, April 7-9, 2010. (Oral)
- E. Kronberg, P. W. Daly, and B. Klecker**, Inner radiation belts by RAPID eyes, Cluster 10th Anniversary Workshop, Korfu, Greece, Sept. 26 - Oct. 1, 2010. (Poster)
- E. Kronberg, J. Woch, N. Krupp, A. Lagg, P. W. Daly, and A. Korth**, Comparison of periodic substorms at Jupiter and Earth, Western Pacific Geophysics Meeting, Taipei, Taiwan, June 22-25, 2010, invited talk. (Oral)
- E. A. Kronberg, R. Bučík, S. Haaland, B. Klecker, K. Keika, M. Desai, P. W. Daly, M. Yamauchi, R. Gomez-Herrero, and A. T. Y. Lui**, On the origin of energetic ion events measured upstream the Earth's bow shock by STEREO, Cluster and Geotail, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- H. Krüger**, Cosima RM Calibration, Cosima Team Meeting, Glorenza/Glurns, Italy, May 12-16, 2010. (Oral)
- H. Krüger**, Die Spektroskopie — Der Fingerabdruck ferner Himmelskörper, Volkshochschule Mosbach (Baden), Binau/Neckar, Nov 19, 2010. (Oral)
- H. Krüger**, Entstehung von Sonnensystemen, Volkshochschule Mosbach (Baden), Binau, June 18, 2010. (Oral)
- H. Krüger**, Jupiter's Dust Disc — An Astrophysical Laboratory, Astronomical Colloquium, University of Maryland, College Park, USA, March 10, 2010. (Oral)
- H. Krüger**, Mineral Measurements with the Cosima RM in Lindau, Cosima Team Meeting, Glorenza/Glurns, Italy, May 12-16, 2010. (Oral)
- H. Krüger**, Spectra Evaluation with Coslevi and TSTSpec, Cosima Team Meeting, Glorenza/Glurns, Italy, May 12-16, 2010. (Oral)
- H. Krüger**, Update on dust detection with dust instruments and notes on future Rosetta measurements, ISSI team workshop on "Nanodust", ISSI Bern, March 22-26, 2010. (Oral)
- H. Krüger, K. Seidensticker, I. Apathy, H.-H. Fischer, A. Hirn, A. Loose, A. Peter, and M. Podolak**, SESAME-DIM - The Dust Impact Monitor on Board Rosetta's Lander PHILAE, Cosima Team Meeting, Glorenza/Glurns, Italien, May 12-16, 2010. (Oral)
- H. Krüger, K. J. Seidensticker, I. Apathy, H.-H. Fischer, A. Hirn, M. Jünemann, A. Loose, A. Peter, M. Podolak, and R. Roll**, SESAME-DIM - The dust impact monitor on board Rosetta's lander Philae, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- H. Krüger, K. J. Seidensticker, I. Apathy, H.-H. Fischer, A. Hirn, M. Jünemann, A. Loose, A. Peter, M. Podolak, and R. Roll**, SESAME-DIM - The dust impact monitor on board Rosetta's lander Philae, Dusty Visions 2010, Göttingen, Germany, July 14-16, 2010. (Poster)

- H. Krüger** and the *SESAME-DIM team*, SESAME-DIM — The Dust Impact Monitor on Board Rosettas Lander PHILAE, Fifth Post-Launch Rosetta Philase Experimenters' Workshop, Milton Keynes/England, June 1-4, 2010. (Oral)
- H. Krüger** and the *Ulysses dust science team*, 17 years of Ulysses dust measurements, Dusty Visions 2010, Göttingen, Germany, July 14-16, 2010. (Oral)
- N. Krupp**, Cassini Enceladus encounters in the view of energetic particle measurements, Satellite-Magnetosphere interactions Workshop, JPL, Pasadena, Oct 25, 2010. (Oral)
- N. Krupp**, EJSM Magnetospheric Science Synergy, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- N. Krupp**, EJSM Synergistic Magnetospheric Science, Meeting of the Outer Planet Assessment Group (OPAG), Washington DC, Feb 8-9, 2010. (Oral)
- N. Krupp**, Introduction to Europlanet NA1 and NA2 activities, Europlanet Workshop, Centre Spatial de Liege, Liege, Belgium, Oct 18-20, 2010. (Oral)
- N. Krupp**, Jovian/Saturnian magnetospheric flow as subsonic upstream condition for the interaction with non-magnetic satellites, 5th Alfvén Conference on plasma interaction with non-magnetized planets/moons and its influence on planetary evolution, Hokkaido University, Sapporo, Japan, Oct 4-8, 2010, invited. (Oral)
- N. Krupp**, New findings and mysteries in Saturn's magnetosphere: Cassini results, Astronomy Kolloquium, National Central University, Jhongli City, Taiwan, Nov 23, 2010. (Oral)
- N. Krupp**, Planetary Magnetospheres, Astronomy Kolloquium, National Central University, Jhongli City, Nov 24, 2010. (Oral)
- N. Krupp**, RHEA flybys in the view of energetic particle measurements, CASSINI/MAPS Workshop 2010, CIAS, Observatoire de Meudon, France, April 7-9, 2010.
- N. Krupp**, Synergistic magnetospheric science goals of the future Jupiter mission EJSM, Europlanet Workshop, Centre Spatial de Liege, Liege, Belgium, Oct 18-20, 2010. (Oral)
- N. Krupp**, The Europa Jupiter System Mission EJSM, Planetenseminar, MPS, Katlenburg-Lindau, Feb 26, 2010. (Oral)
- N. Krupp**, The Scientific Objectives and Technical Requirements of the Europa Jupiter System Mission EJSM, Astronomy Kolloquium, National Central University, Jhongli City, Taiwan, Nov 25, 2010. (Oral)
- N. Krupp, E. Roussos, P. Kollmann, Z. Bebesi, A. Mueller, G. H. Jones, S. M. Krimigis, D. G. Mitchell, A. M. Rymer, T. P. Armstrong, D. C. Hamilton, M. K. Dougherty, S. A. Livi, S. Kempf, and R. Srama**, The Cassini Enceladus encounters in the view of energetic particle measurements:, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- N. Krupp** and the *EJSM Magnetospheric Working group*, Magnetospheric research with EJSM: Science investigation and synergies of multiple spacecraft in the Jovian system, EJSM science Workshop, ESTEC, Noordwijk, NL, May 17-19, 2010. (Oral)
- N. Krupp** and the *MIMI-CAPS-CDA-MAG Enceladus Team*, The Cassini Enceladus encounters in the view of energetic particle measurements, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)
- T. Kuroda, P. Hartogh, H. Sagawa, and Y. Kasai**, Vertical Distributions and Transports of Water Vapor and H<sub>2</sub>O/CO<sub>2</sub> Ice Particles in the Martian Atmosphere: Comparison between Recent Observations and a General Circulation Model, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)

- T. Kuroda, P. Hartogh, H. Sagawa, M. Takahashi, and the MELOS SMM sounder Team**, GCM simulations of the dynamics and material transport in the Martian atmosphere in preparation of the MELOS SMM sounder, 38th COSPAR Scientific Assembly, Bremen, Germany, 18-25 July, 2010. (Oral)
- T. Kuroda, Y. Kasai, H. Sagawa, P. Hartogh, T. Manabe, and D. Murtagh**, Submillimeter wave instrument on the Japanese Mars orbiter MELOS-1, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Oral)
- T. Kuroda, A. S. Medvedev, P. Hartogh, and M. Takahashi**, Effects of the solstitial dust storms to the winter polar warmings in the Martian middle atmosphere, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Oral)
- A. Lagg**, Chromospheric magnetic fields with the EST: A new era for He 10830, EST France Workshop 2010, Meudon, Paris, France, May 19-21, 2010. (Oral)
- L. Le Roy, C. Briois, L. Thirkell, H. Cottin, N. Fray, G. Poulet, and M. Hilchenbach**, TOF-SIMS analysis of N-heterocyclic compounds-implications for the Rosetta/COSIMA Mission, 38th COSPAR Scientific Assembly, Bremen, Germany, July 15-18, 2010. (Poster)
- L. Le Roy, H. Cottin, N. Fray, C. Briois, L. Thirkell, and M. Hilchenbach**, On the detection of polyoxymethylene with the Rosetta/COSIMA instrument, 38th COSPAR Scientific Assembly, Bremen, Germany, July 15-18, 2010. (Oral)
- L. Le Roy, H. Cottin, N. Fray, C. Briois, L. Thirkell, G. Poulet, and M. Hilchenbach**, Detection Of Organic Compounds With COSIMA-rosetta Instrument: Application To Polyoxymethylene, American Astronomical Society, DPS, Pasadena, CA, USA, Oct 3-8, 2010. (Poster)
- J. Lee and J. Büchner**, Two-dimensional particle-in-cell simulation of oblique electromagnetic instabilities in a current-free return beam plasma, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010.
- K. W. Lee and J. Büchner**, Anomalous momentum transport and plasma heating in collisionless return-current beam plasma system: multi-fluid and kinetic approaches, Annual Meeting of the German Physical Society, Bonn, March 20, 2010. (Oral)
- E. Lellouch, P. Hartogh, H. Feuchtgruber, C. Jarchow, R. Moreno, B. Swinyard, T. de Graauw, T. Cavalié, G. S. Orton, and B. Vandenbussche**, Observations of Neptune and Uranus with Herschel, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- E. Lellouch, P. Hartogh, R. Moreno, D. Bockelée-Morvan, N. Biver, C. Jarchow, M. Rengel, T. Cavalié, F. Helmich, and the Hsso Team**, Detection of Enceladus Torus from Submillimeter Observations with Herschel/HIFI, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)
- Z.-C. Liang, L. Gizon, and H. Schunker**, Finite-wavelength scattering of high-degree modes by a sunspot, Conference: GONG 2010 - SoHO 24: A new era of seismology of the Sun and solar-like stars, Aix-en-Provence, France, June 27 - July 2, 2010. (Poster)
- M. Lippi, G. L. Villanueva, M. A. DiSanti, B. P. Bonev, M. J. Mumma, and H. Boehnhardt**, Infrared spectroscopy of the nu-1 transition of HCN molecule in comets, European Planetary Science Congress 2010, Rome, Italy, Sept. 19-24, 2010. (Oral)
- J. Luhmann, D. Ulusen, T. McEnulty, Y.-J. Ma, H. Wei, C. T. Russell, R. Strangeway, A. Fedorov, S. Barabash, T.-L. Zhang, E. Dubinin, T. Cravens, A. Nagy, and B. Jakosky**, Mars and Venus Solar Wind interactions - Role of the Solar Cycle, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010, invited.

- G. Machtoub, A. Medvedev, and P. Hartogh**, Modeling the Atmospheric Water Cycle with a Martian General Circulation Model, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Poster)
- G. Machtoub, A. Medvedev, and P. Hartogh**, Modeling the Atmospheric Water Cycle with a Martian General Circulation Model, International Workshop on Advances in Planetary Atmospheres and Exploration, Ahmedabad, India, July 12-13, 2010. (Oral)
- G. Machtoub, A. Medvedev, and P. Hartogh**, Modeling the Atmospheric Water Cycle with a Martian General Circulation Model, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Poster)
- G. Machtoub, A. Medvedev, and P. Hartogh**, 3D Modeling of the Martian Water Cycle with MAOAM-GCM, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- O. Maj, R. Bilato, M. Brambilla, and E. Marsch**, A steady-state Fokker-Planck solver for wave-particle interactions in coronal holes, European Physical Society 37 Conference on Plasma Physics, Dublin, Ireland, June 21-25, 2010. (Poster)
- Y. Maneva, J. Araneda, and E. Marsch**, Non-thermal features in ion distributions caused by large-amplitude Alfvén-cyclotron waves, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- Y. Maneva, E. Marsch, and J. Araneda**, Heating and acceleration of fast solar wind ions - a simulation study, Frühjahrstagung 2010 der DPG gemeinsam mit der AEF und AG, Bonn, March 15-19, 2010. (Oral)
- A. Manglik, J. Wicht, and U. Christensen**, Double diffusive dynamo action in Mercury's core, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)
- E. Marsch**, Coronal convection and solar wind sources, Seminar at the School of Earth and Space Sciences, Peking University, Beijing, China, June 25, 2010, invited. (Oral)
- E. Marsch**, Coronal convection and solar wind sources, Seminar at the School of Space Science and Physics, Shandong University, Weihai, China, June 29, 2010, invited. (Oral)
- E. Marsch**, Evolution of particle velocity distributions in the solar wind between 0.3 and 1 AU, Seminar at the School of Space Science and Physics, Shandong University, Weihai, China, June 29, 2010, invited. (Oral)
- E. Marsch**, Heating of the Sun's corona, The 6th ESA-China Space Science Bilateral Meeting, Chengdu, China, June 21-24, 2010, invited. (Oral)
- E. Marsch**, Helios: evolution of distribution functions 0.3-1 AU, ISSI Workshop on Multi-scale physics in coronal heating and solar wind acceleration from the Sun into the inner heliosphere, Bern, Switzerland, January 25-29, 2010, invited. (Oral)
- E. Marsch**, Turbulence in the solar wind, Seminar at the State Key Laboratory for Turbulence and Complex Systems, Peking University, Beijing, China, June 25, 2010, invited. (Oral)
- E. Marsch and W. Curdt**, Coronal convection and solar wind sources, Frühjahrstagung 2010 der DPG gemeinsam mit der AEF und AG, Bonn, March 15-19, 2010. (Oral)
- E. Marsch, S. Yao, C. Tu, and R. Schwenn**, Identification of prominence ejecta by the proton distribution function and magnetic fine structure in ICMEs in the inner heliosphere, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- P. C. Martens, G. Attrill, A. Davey, A. Engell, S. Farid, P. Grigis, J. Kasper, K. Korreck, S. Saar, Y. Su, P. Testa, M. Wills-Davey, P. Bernasconi, N. Raouafi, M. Georgoulis, C. Deforest, J. Peterson, T. Berghoff, V. Delouille, J. Hochedez, B. Mampaey, C. Verbeek, J. . Cirtain, S. Green, R. Timmons, A. Savcheva, R. Angryk, T. Wiegmann, and R. McAteer**, Computer Vision for SDO: First Results

from the SDO Feature Finding Algorithms, AAS 216th Meeting, Miami, USA, May 23-27, 2010. (Oral)

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**H. Moradi**, C. Baldner, A. C. Birch, D. C. Braun, **R. Cameron**, T. L. Duvall, Jr., **L. Gizon**, D. Haber, **S. M. Hanasoge**, B. W. Hindman, J. Jackiewicz, E. Khomenko, R. Komm, P. Rajaguru, M. Rempel, M. Roth, R. Schlichenmaier, **H. Schunker**, H. C. Spruit, K. Strassmeier, M. J. Thompson, and S. Zarkov, Helioseismology of sunspots: An extended analysis of AR 9787, Conference: GONG 2010 - SoHO 24: A new era of seismology of the Sun and solar-like stars, Aix-en-Provence, France, June 27 - July 2, 2010. (Poster)

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M. Mumma, **M. Lippi**, J. Keane, B. P. Bonev, G. L. Villanueva, **H. Boehnhardt**, M. A. DiSanti, E. L. Gibb, K. Magee-Sauer, K. Meech, **L. Paganini**, and T. Riesen, The Parent Volatile Composition of 103P/Hartley-2: Results from Pre-perihelion Observations at 1.6 AU, American Astronomical Society, DPS meeting #42, Pasadena, Oct 3-8, 2010. (Oral)

**A. Nathues**, V. Reddy, S. Schaeff, A. Wiegand, R. Michelsen, J. A. Sanchez, and **H. Boehnhardt**, Ground-based Mineralogical Characterization of low  $\Delta v$  ASTEX Mission Targets, Lunar and Planetary Science Conference, Texas, March 1-5, 2010. (Poster)

**A. Nathues**, V. Reddy, S. Schaeff, A. Wiegand, R. Michelsen, J. A. Sanchez, and **H. Boehnhardt**, Ground-based Mineralogical Characterization of low  $\Delta v$  ASTEX Mission Targets, 41st Lunar and Planetary Science Conference, Houston, Mar 1-5, 2010. (Oral)

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D. Newnham, P. Espy, M. Clilverd, C. J. Rodger, A. Seppala, D. Maxfield, and **P. Hartogh**, Mesospheric nitric oxide (NO) enhancements above Troll Station, Antarctica during March - May 2008, 38th COSPAR Scientific Assembly, Bremen, Germany, 18-25 July, 2010. (Oral)

P. Olson, **U. R. Christensen**, and P. E. Driscoll, From superchrons to secular variation: A broadband dynamo frequency spectrum for the geomagnetic dipole moment, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)

- G. S. Orton**, R. Moreno, E. Lellouch, L. N. Fletcher, **P. Hartogh**, H. Feuchtgruber, **C. Jarchow**, **T. Cavalie**, L. Lara, **M. Rengel**, **A. Gonzalez**, M. Line, and the Herschel HssO Key Project Team, The Physical Structure and Chemical Composition of Neptune's Atmosphere from Combined Herschel and Spitzer Spectral Observations, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)
- L. Paganini**, Analysis of the HCN-CN parentage in cometary comae using simultaneous observations at submillimeter and optical wavelengths, Cometary Radio Astronomy Workshop, NRAO Green Bank, West Virginia, USA, May 17-19, 2010. (Oral)
- T. Papaevangelou** and **T. I. Rashba**. et al., CAST: Recent results & future outlook, 6th Patras Workshop on Axions, WIMPs and WISPs, Zurich, Switzerland, July 5-9, 2010. (Oral)
- C. Paranicas, **N. Krupp**, **E. Roussos**, P. C. Brandt, B. H. Mauk, N. Andre, T. A. Cassidy, A. R. Hendrix, and K. K. Khurana, Using energetic charged particles to study the Jovian satellites, EJSM science Workshop, ESTEC, Noordwijk, NL, May 17-19, 2010. (Oral)
- C. Paranicas**, P. Schenk, **E. Roussos**, **N. Krupp**, T. Cassidy, A. Hendrix, R. E. Johnson, and G. Jonoas, Charged particle weathering of the Saturnian satellites, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- H. Peter**, Asymmetric flows in the solar corona, DPG Frühjahrstagung, Bonn, March 15-19, 2010. (Oral)
- H. Peter**, Asymmetries of solar coronal EUV emission lines, Hinode-4 Meeting, Palermo, Italy, Oct 12, 2010. (Oral)
- H. Peter**, Die Korona der Sonne, Physik-Kolloquium, Göttingen, June 21, 2010. (Oral)
- H. Peter**, Unsolved questions in solar physics, STFC advances summer school, Preston, UK, Aug 31, 2010.
- H. Peter** and **S. Bingert**, Dynamics of Active Regions: Observations and 3D MHD Modeling, American Astronomical Society Meeting, Miami, USA, 2010. (Oral)
- J. Pietarila Graham**, **R. Cameron**, **S. Danilovic**, and **M. Schüssler**, Small-scale dynamo action in solar surface simulations, Self-Organization in Turbulent Plasmas and Fluids Workshop, Max-Planck-Institut für Physik komplexer Systeme, Dresden, May 10-14, 2010, invited. (Oral)
- S. Protopapa**, **H. Boehnhardt**, D. P. Cruikshank, and W. M. Grundy, NACO Surface Ice Spectroscopy of Triton up to 5 micron, TNO 2010 Dynamical and Physical properties of Trans-Neptunian Objects, Philadelphia, USA, June 27- July 1, 2010. (Poster)
- S. Protopapa**, **H. Boehnhardt**, D. P. Cruikshank, and W. M. Grundy, Pluto: Investigation of a possible resurfacing process, TNO 2010 Dynamical and Physical properties of Trans-Neptunian Objects, Philadelphia, USA, June 27- July 1, 2010. (Oral)
- T. Rashba**, Extragalactic neutrinos propagating through scalar dark matter, Seminar on Astroparticle Physics, Hamburg University, Hamburg, Germany, June 21, 2010, invited talk. (Oral)
- T. I. Rashba**, **L. Gizon**, and **R. Cameron**, Interaction of solar waves with frozen turbulence, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- V. Reddy, E. A. Cloutis, M. J. Gaffey, A. Galád, P. Pravec, A. W. Harris, **A. Nathues**, and **J. A. Sanchez**, Compositional Investigation of (5404) Uemura: The Largest Fast-Rotating Monolith, Lunar and Planetary Science Conference, Texas, March 1-5, 2010. (Poster)
- V. Reddy, **A. Nathues**, K. A. Archer, **J. A. Sanchez**, M. J. Gaffey, **H. Sierks**, and R. A. Archer, Phase Angle-induced Photometric And Spectral Effects On Vesta: Implications For The Dawn Mission, American Astronomical Society, DPS meeting #42, Pasadena, October 3-8, 2010. (Poster)

- M. Rengel**, Observing our Solar System with the Eyes of Herschel, General Colloquium — Les jeudis des sciences, Université du Luxembourg, Nov 25, 2010, (invited). (Oral)
- M. Rengel**, Taller de Astrofísica, High School: U. E. N. Juan de Escalona, Caracas, Venezuela, March 10, 2010, (invited speaker). (Oral)
- M. Rengel**, The Titan and Venus atmospheres from ground and space-based observations in the micro-wave region: the promise of ALMA, The impact of Herschel surveys on ALMA Early Science, Garching, Nov 16-19, 2010. (Oral)
- M. Rengel**, **P. Hartogh**, **H. Sagawa**, **E. Lellouch**, **H. Feuchgruber**, **C. Jarchow**, **R. Moreno**, **R. Courtin**, and the HssO Team, The Composition of Titan's Atmosphere as seen by Herschel / PACS, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)
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- M. Rengel**, **H. Sagawa**, **P. Hartogh**, and **C. Jarchow**, Planetary atmospheres with the ALMA Band 5, ALMA Band 5 Workshop, Osservatorio Astronomico di Roma, Italy, May 24-25, 2010. (Oral)
- E. Roussos**, Evidence for dust-driven interchange transport in Saturn's radiation belts, CASSINI/MAPS Workshop 2010, CIAS, Observatoire de Meudon, France, April 7-9, 2010.
- E. Roussos**, Solar cycle control of Saturn's radiation belts, CASSINI/MAPS Workshop 2010, CIAS, Observatoire de Meudon, France, April 7-9, 2010.
- E. Roussos**, **N. Krupp**, **P. Kollmann**, **C. Paranicas**, **D. G. Mitchell**, **S. M. Krimigis**, **A. L. Müller**, and **Z. Bebesi**, Organizing energetic particle fluxes in Saturn's inner magnetosphere, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- E. Roussos**, **N. Krupp**, **H. Krüger**, and **G. H. Jones**, Surface charging of Saturn's plasm absorbing moons: theoretical estimations and comparisons with Cassini observations, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Poster)
- E. Roussos**, **N. Krupp**, **C. Paranicas**, **D. G. Mitchell**, **T. P. Armstrong**, **P. Kollmann**, **S. M. Krimigis**, and **D. Went**, Long and short term variability of Saturn's ionic radiation belts, Europlanet workshop, Centre Spatial de Liege, Liege, Belgium, Oct 18-20, 2010. (Oral)
- E. Roussos**, **N. Krupp**, **C. Paranicas**, **D. G. Mitchell**, **S. M. Krimigis**, and **G. H. Jones**, Solar cycle control of Saturn's ionic radiation belts, Cassini MAPS meeting, Meudon, Paris, France, April 7-9, 2010. (Oral)
- E. Roussos**, **N. Krupp**, **C. Paranicas**, **D. G. Mitchell**, **S. M. Krimigis**, and **G. H. Jones**, Update on Rhea's magnetospheric interaction using MIMI/LEMMS observations, Cassini PSG meeting, Munich, Germany, June 7-11, 2010. (Oral)
- E. Roussos**, **N. Krupp**, **C. Paranicas**, **D. G. Mitchell**, **S. M. Krimigis**, **G. H. Jones**, **Z. Bebesi**, and **M. F. Thomsen**, Evidence for dust driven interchange transport in Saturn's radiation belts, Cassini MAPS meeting, Meudon, Paris, France, April 7-9, 2010. (Oral)
- E. Roussos**, **N. Krupp**, **C. Paranicas**, **D. G. Mitchell**, **S. M. Krimigis**, **G. H. Jones**, and **P. Kollmann**, Saturn's radiation belts after 5 years of MIMI/LEMMS observations, Cassini PSG meeting, Munich, Germany, June 7-11, 2010. (Oral)
- E. Roussos**, **N. Krupp**, **C. Paranicas**, **D. G. Mitchell**, **S. M. Krimigis**, **A. L. Müller**, and **P. Kollmann**, Monitoring plasma transport in Saturn's inner magnetosphere through icy moon microsignatures, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Oral)



- E. Roussos**, C. Paranicas, **N. Krupp**, **P. Kollmann**, K. K. Khurana, D. G. Mitchell, and S. M. Krimigis, Charged particle drifts in Saturn's inner and middle equatorial magnetosphere using different magnetospheric field models, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- A. M. Rymer**, D. G. Mitchell, T. W. Hill, **E. Kronberg**, and **N. Krupp**, Saturn's Global Magnetospheric Mode, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- H. Sagawa**, **P. Hartogh**, E. Lellouch, H. Feuchtgruber, G. Orton, **C. Jarchow**, **T. Cavalié**, R. Moreno, T. de Graauw, and H. Team, Far Infrared Spectra of Jupiter Observed with PACS Onboard Herschel, 42nd annual meeting of the Division for Planetary Sciences of the American Astronomical Society, DPS, Pasadena, USA, October 3-8, 2010. (Oral)
- H. Sagawa**, Y. Kasai, **P. Hartogh**, and **T. Kuroda**, Future Submillimeter Remote Sensing of the Martian Atmosphere, Asia Oceania Geosciences Society 7th Annual Meeting, Hyderabad, India, July 5-9, 2010. (Oral)
- Y. Saidi**, **R. Burston**, and **L. Gizon**, German Helioseismology Center for SDO, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- J. C. Santos**, **J. Büchner**, and A. Otto, Electric currents in the solar atmosphere in the presence of a magnetic null point, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010.
- S. Savin**, L. M. Zeleniy, A. E., **J. Büchner**, J. Blecki, M. A. Balikhin, and L. Lezhen, On statistical properties of transport barriers in magnetospheric and laboratory boundary layers, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010.
- H. Schunker**, Recently discovered properties of acoustic power, GONG 2010 — SoHO 24 conference: A new era of seismology of the Sun and solar-like stars, Aix-en-Provence, France, June 27 - July 2, 2010, contributed talk. (Oral)
- H. Schunker**, Theoretical tools in local helioseismology, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010, invited review talk. (Oral)
- H. Schunker** and D. C. Braun, New insights into surface acoustic power, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- H. Schunker**, **R. Cameron**, **H. Moradi**, and **L. Gizon**, Modelling solar oscillations, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- M. Schüssler**, Die Sonne — der magnetische Stern, Vortragsreihe "Faszinierendes Weltall", Förderkreis Planetarium, Göttingen, November 30, 2010. (Oral)
- M. Schüssler**, Research Ethics, Workshop Graduiertenkolleg 1351: Extrasolar Planets and their Host Stars, Goslar, November 19, 2010. (Oral)
- M. Schüssler**, Research Ethics and Responsible Conduct of Research, Graduate Student Week, Helmholtz Alliance "Planetary Evolution and Life", Wandlitz, Germany, May 26, 2010. (Oral)
- M. Schüssler**, The solar magnetic field and its dynamo(s), MHD Dynamos in Laboratory and Astrophysical Plasmas, Bochum, Germany, February 15-19, 2010, invited lecture. (Oral)
- N. Sergis**, S. Krimigis, C. Arridge, E. Roelof, A. Rymer, D. Mitchell, M. Thomsen, M. Kivelson, K. Ramer, D. Hamilton, **N. Krupp**, M. Dougherty, A. Coates, and D. Young, Particle pressure, inertial force and ring current density in the magnetosphere of Saturn, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Oral)
- N. Sergis**, S. M. Krimigis, A. Masters, C. S. Arridge, C. M. Jackman, C. Bertucci, N. Andres, N. André, D. G. Mitchell, D. C. Hamilton, **N. Krupp**, M. K. Dougherty, A. J. Coates, G. B. Hospodarsky, and

- W. S. Kurth*, Energetic ion events upstream from the Saturnian bow shock: A multi-instrument study with Cassini measurements, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- H. Shiraishi, N. Kobayashi, N. Takeuchi, H. Murakami, P. Lognonne, D. Giardini, U. R. Christensen, T. Okamoto, K. Kuge, D. Zhao, A. Mocquet, D. Mimoun, S. D. Raucourt, T. Nebut, S. Tillier, T. Kawamura, D. Mance, P. Zweifel, M. Bierwirth, R. Roll, Y. Ishihara, E. Araki, K. Ogawa, R. Yamada, K. Shirai, Y. Iijima, M. Hayakawa, S. Tanaka, H. Kakuma, and I. Yamada*, Lunar BroadBand Seismometer system in the Japanese lunar landing mission SELENE-2: Its science goals and instrument details, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- A. Sicard-Piet, S. Bourdarie, and N. Krupp*, JOSE: A new JOvian Specification Environment model, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)
- H. Smith, E. Marsch, and P. Helander*, Electron transport in the solar wind - results from numerical simulations, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)
- S.K. Solanki*, Der Einfluss der Sonne auf die Erde, Arbeitsgemeinschaft Astronomie, VHS Ludwigsburg, Ludwigsburg, Germany, November 18, 2010. (Oral)
- S.K. Solanki*, Die Sonne, der Stern von dem wir leben, OktoberMusikFest der Bayerischen Staatsoper, München, Germany, November 7, 2010. (Oral)
- S.K. Solanki*, First results from Sunrise, Hinode-4, Palermo, Italy, October 11-15, 2010. (Oral)
- S.K. Solanki*, Is the current solar activity minimum special?, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- S.K. Solanki*, Long term variability of solar magnetic activity: the solar-stellar connection, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- S.K. Solanki*, Reconstruction solar activity with application in climate change, SCOSTEP's Symposium STP 12, Berlin, Germany, July 12-16, 2010. (Oral)
- S.K. Solanki*, Solar irradiance, past, present and future, ROMIC: Role of the middle atmosphere in climate, Kühlungsborn, Germany, June 9, 2010. (Oral)
- S.K. Solanki*, Solar spectral irradiance variations: the long-term view, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- S.K. Solanki*, The changing brightness and spectrum of the Sun: Measurements and models, SOLARIS Workshop, Solar Influence on SPARC, Potsdam, Germany, March 10-12, 2010. (Oral)
- S.K. Solanki*, The Sun at high resolution: First results from the Sunrise mission, IAU Symposium 273, Ventura, CA, USA, August 22-26, 2010. (Oral)
- S.K. Solanki*, The Sun's magnetic field activity, Colloquium, MPI for Plasma Physics, Garching, Germany, April 16, 2010. (Oral)
- S.K. Solanki*, What is wrong with the Sun? The present and future of solar physics, Frühjahrstagung 2010 der DPG gemeinsam mit der AEF und AG, Bonn, March 15-19, 2010. (Oral)
- L. Song, D. V. Titov, and W. J. Markiewicz*, Cloud Morphology and Dynamics from Venus Express Observations, Seminar in Institute of Space Physics and Applied Technology, Peking University, China, Beijing, China, April 29, 2010. (Oral)
- P. Song and V. M. Vasyliūnas*, Heating of the solar chromosphere through strong damping of Alfvén waves, AGU Joint Assembly 2010 (The Meeting of the Americas), Foz do Iguaçu, Brazil, August 8-12, 2010. (Poster)
- H. Steininger and F. Goesmann*, Influence of oxidants on the pyrolysis of organic compounds in Martian soil analogs, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Poster)

- G. Stenborg, E. Marsch, A. Vourlidas, R. Howard, and K. Baldwin*, Coronal sound waves on open magnetic field lines originating near solar active regions, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- Y. Stockman, A. BenMoussa, I. Dammasch, J.-M. Defise, M. Dominique, J.-P. Halain, J.-F. Hochedez, S. Koller, W. Schmutz, and U. Schühle*, LYRA Solar UV Radiometer Performances on Board of PROBA-2, International Conference on Space Optics (ICSO), Rhodes, Greece, October 4-8, 2010. (Oral)
- C. Straub, N. Kaempfer, K. Hallgren, P. Hartogh, S. Golchert, and G. Hochschild*, ARIS-Campaign: Intercomparison of three 22 GHz radiometers for middle atmospheric water vapor at the Zugspitze in winter 2009, 38th COSPAR Scientific Assembly, Bremen, Germany, 18-25 July, 2010. (Oral)
- X. Sun, J. T. Hoeksema, T. Wiegelmann, K. Hayashi, and Y. Liu*, First Result of Field Extrapolation Based on HMI Vector Magnetic Data, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)
- X. Sun, J. T. Hoeksema, X. Zhao, and T. Wiegelmann*, An Attempt in Incorporating Local and Global Coronal Magnetic Field Modeling, AAS 216th Meeting, Miami, USA, May 23-27, 2010. (Poster)
- M. Švanda, L. Gizon, S. M. Hanasoge, and S. D. Ustyugov*, Validation of linear inversions for 3D vector flows using numerical simulation, Conference: GONG 2010 - SoHO 24: A new era of seismology of the Sun and solar-like stars, Aix-en-Provence, France, June 27 - July 2, 2010. (Poster)
- M. Švanda, L. Gizon, S. M. Hanasoge, and S. D. Ustyugov*, Validation of linear OLA inversions for flows, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Poster)
- K. Svenes, B. Lybekk, A. Pedersen, and S. Haaland*, A survey of polar cap densities based on EFW probe measurements, Cluster 10th Anniversary Workshop, Korfu, Greece, Sept. 26 - Oct. 1, 2010. (Oral)
- S. Szutowicz, G. Sitariski, Bockelée-Morvan, J. Crovisier, P. Hartogh, M. de Val-Borro, and N. Biver*, Non-gravitational effects and activity of comet C/2006 W3 (Christensen) and C/2008 Q3 (Garradd), European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Poster)
- T. Tadesse, T. Wiegelmann, and B. Inhester*, Nonlinear force-free field extrapolation in spherical geometry: improved boundary data treatment applied to a SOLIS/VSM vector magnetogram, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- L. Teriaca*, Solar wind acceleration and waves in the corona: perspectives for a spectrometer on Solar C/Plan A, The second Solar-C science definition meeting, ISAS/JAXA, Tokyo, Japan, March 9-12, 2010. (Oral)
- L. Teriaca, S. Giordano, F. Landini, and G. Poletto*, The Fast Solar Wind Outflow Speed Profile between 1 and 2 Solar Radii, Hinode-4: unsolved problems and recent insights, Mondello, Palermo, Italy, October 11-15, 2010. (Poster)
- L. Teriaca* and the sub-WG for EUV spectroscopy on Solar-C/Plan B, Solar wind acceleration and waves in the corona: report from the sub-Working Group for EUV spectroscopy on Solar-C/Plan B, The second Solar-C science definition meeting, ISAS/JAXA, Tokyo, Japan, March 9-12, 2010. (Oral)
- J. K. Thalmann, T. Wiegelmann, and B. Inhester*, Magnetic helicity in solar active regions, Xth Hvar Astrophysical Colloquium—The Active Sun, Town Loggia, Hvar, Croatia, Sept. 6-10, 2010. (Oral)
- R. Thissen, B. Arezki, J. J. Berthelier, A. Bouabdellah, A. Boukrara, C. Briois, N. Carrasco, P. Gilbert, C. Engrand, N. Grand, M. Hilchenbach, H. Krüger, A. Makarov, C. Pennanech, P. Puget, E. Quirico, C. Szopa, L. Thirkell, P. Zapf, and H. Cottin*, Orbitrap for ILMA: Ion Laser Mass Analyser. A Mass-

Spectrometer for In-Situ Characterization of a Near Earth Object (NEO), 38th COSPAR Scientific Assembly, Bremen, Germany, July 15-18, 2010. (Oral)

***M. Thompson and L. Gizon***, Reports on HELAS Network Activities (NA) #3 and #4: Global and Local Helioseismology, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010. (Oral)

***C. Tubiana, H. Boehnhardt, C. Ejeta, C. Snodgrass, L. Barrera, and P. Nowajewski***, Ground-based characterization of 67P/Churyumov-Gerasimenko, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)

***V. M. Vasyliūnas***, Calculating the external magnetic force on the Earth's dipole, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)

***V. M. Vasyliūnas***, Can the properties of the open magnetosphere be derived from first principles?, Theory of the Magnetosphere, Santa Fe, New Mexico, USA, October 4-8, 2010, invited. (Oral)

***V. M. Vasyliūnas***, Comparative magnetospheres: universal aspects, AGU Joint Assembly 2010 (The Meeting of the Americas), Foz do Iguaçu, Brazil, August 8-12, 2010, invited talk. (Oral)

***V. M. Vasyliūnas***, Essential physical questions about substorm onset and expansion phase, Seminar, Jet propulsion Laboratory, Pasadena, CA, USA, March 17, 2010. (Oral)

***V. M. Vasyliūnas***, Essential physical questions about substorm onset and expansion phase, 10th International Conference on Substorms, San Luis Obispo, California, USA, March 22-26, 2010. (Oral)

***V. M. Vasyliūnas***, Fundamental aspects of ionospheric electrodynamics, seminar, Instituto Nacional de Pesquisas Espaciais (INPE), São José dos Campos, Brazil, August 17, 2010. (Oral)

***V. M. Vasyliūnas***, Interrelationships of magnetic fields, electric currents, and forces in the magnetosphere/ionosphere/atmosphere system, Seminar, Space Plasma Theory Group, University of New Hampshire, Durham, New Hampshire, USA, October 13, 2010. (Oral)

***V. M. Vasyliūnas***, Planetary magnetospheres, Heliophysics Summer School – Year 4, Boulder, Colorado, USA, July 28 - August 4, 2010, invited lecture. (Oral)

***V. M. Vasyliūnas***, The Ptolemaic approach to ionospheric electrodynamics, AGU Fall Meeting, San Francisco, USA, Dec 13-17, 2010. (Poster)

***D. Verscharen and E. Marsch***, Kinetics of non-Maxwellian distribution functions in the turbulent solar wind, International Workshop "New perspectives on cosmic rays in the heliosphere", Parys, South Africa, March 22-26, 2010, hosted by Unit of Space Physics, North-West University. (Oral)

***D. Verscharen and E. Marsch***, Kinetik nicht-maxwellscher Verteilungsfunktionen des turbulenten Sonnenwindplasmas, Frühjahrstagung 2010 der DPG gemeinsam mit der AEF und AG, Bonn, March 15-19, 2010. (Oral)

***J.-B. Vincent, C. Snodgrass, C. Tubiana, H. Sierks, S. Hviid, R. Moissl, H. Boehnhardt, C. Barbieri, D. Koschny, P. Lamy, H. Rickman, R. Rodrigo, B. Carry, S. C. Lowry, R. J. M. Laird, P. R. Weissman, A. Fitzsimmons, S. Marchi, , and the OSIRIS team***, Asteroid collision confirmed by Rosetta/OSIRIS observations, European Planetary Science Congress 2010, Rome, Italy, September 19-24, 2010. (Oral)

***O. von der Lühe, M. Roth, C. Aerts, J. Christensen-Dalsgaard, J. Daszynska-Daszkiewicz, M. P. di Mauro, L. Gizon, M. J. P. F. G. Monteiro, P. L. Pallé, and M. J. Thompson***, Four Years of HELAS, IV HELAS International Conference: Seismological Challenges for Stellar Structure, Arrecife, Lanzarote, Spain, February 1-5, 2010, invited talk. (Oral)

***J. Wicht***, Towards realistic planetary dynamo simulations, 28th IUGG Conference on Mathematical Geophysics, Pisa, Italy, June 7-11, 2010, invited.

- J. Wicht, W. Dietrich, and K. Hori**, Equatorially anti-symmetric convection in rotating spherical shells, Geodynamics Workshop 2010, Westfälische Wilhelms-Universität, Münster, October 6-8, 2010. (Oral)
- J. Wicht and P. Olson**, Differential Rotation Dynamos: An Application to Saturn, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Oral)
- T. Wiegelmann**, Das Magnetfeld der Sonnenkorona - Aktivität und Weltraumwetter, Bochumer Vortragsreihe Theoretische Physik mit dem Schwerpunkt Plasmaphysik, Bochum, Feb 4, 2010, invited. (Oral)
- T. Wiegelmann**, Modeling solar coronal magnetic fields, IAU Symposium 273 Physics of Sun and IAU Symposium 273 Physics of Sun and Star Spots, Ventura, USA, August 23-26, 2010, invited Review. (Oral)
- T. Wiegelmann, L. Y. Chaouche, S. K. Solanki, and A. Lagg**, How do inaccuracies and unresolved structures in the measured solar photospheric magnetic vector influence the accuracy of coronal magnetic field models?, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- T. Wiegelmann, J. Thalmann, J. Jing, and H. Wang**, Monitoring free magnetic energy in erupting active regions, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010. (Oral)
- T. Wiegelmann, J. Thalmann, and T. Tadesse**, NLFFF-Tools for AR-modelling, Active Region Evolution Workshop, GSFC and MPS, November 4-5, 2010. (Oral)
- J. Woch, E. Dubinin, and M. Fraenz**, Intrinsic and induced magnetic fields of terrestrial planets and their influence on atmospheric escape and water inventory, DFG /Planetary Magnetism SPP 1488, GFZ, Potsdam, Germany, January 28, 2010. (Poster)
- E. Yiğit and A. S. Medvedev**, Internal gravity waves in the thermosphere during low and high solar activity: Simulation study, European Geosciences Union General Assembly, Vienna, Austria, May 2-7, 2010. (Poster)
- E. Yiğit and A. S. Medvedev**, On thermal and dynamical effects of small-scale gravity waves in the thermosphere-ionosphere system, 38th COSPAR Scientific Assembly, Bremen, Germany, July 18-25, 2010, invited. (Oral)
- E. Yiğit and A. S. Medvedev**, Gravity waves and their effects in the thermosphere during low and high solar activity, Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) Symposium, Berlin, July 12-16, 2010. (Poster)

## 5. Seminare / *Seminars*

### Teeseminar und Kolloquium / *Tea Seminar and Colloquium*

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

**Frank Jenko** (IPP, Garching / Universität Ulm, Germany), Dynamo Theory, 3. Feb. 2010

**P. Venkatakrishnan** (Udaipur Solar Observatory, India), Net Photospheric Currents in Sunspots, 17. Feb. 2010

**Mark Cheung** (Lockheed Martin Solar and Astrophysics Laboratory, Palo Alto, USA), Radiative MHD simulation of Active Region Birth, 25. Feb. 2010

**Henry Hsieh** (Queen's University, Belfast, UK), Oddball Snowballs: The Mystery of the Main-Belt Comets, 11. Mar. 2010

**Rainer Moll** (MPI für Astrophysik, Garching, Germany), Simulations of kink instabilities in expanding magnetic jets, 14. Apr. 2010

**Philip Crockett** (Queen's University, Belfast, UK), Detection of the small scale photospheric magnetic field, 30. Apr. 2010

**Omar Maj** (IPP, Garching, Germany), Solutions of the quasi-linear Fokker-Planck equation for ion distributions in coronal funnels, 5. May 2010

**Roberto Susino** (INAF - Catania Astrophysical Observatory, Italy), Heating and dynamics of coronal loops, 18. May 2010

**Stanislav Gunar** (Astronomical Institute, Ondrejov, Czech Republic), 2D multi-thread prominence fine structure models, 20. May 2010

**Hansjörg Dittus** (DLR Institut für Raumfahrtssysteme, Bremen, Germany), Systemtechnik am Beispiel des AsteoridFinder-Satelliten, 8. Jun. 2010

**Pia Zacharias** (Kiepenheuer-Institut für Sonnenphysik, Freiburg, Germany), Spectral Analysis of 3D MHD models of the solar corona, 9. Jun 2010

**Dario Passos** (Multidisciplinary Centre for Astrophysics, Lisbon, Portugal), Applications of a low order dynamo model to solar variability, 15. Jun. 2010

**Paul S. Hardersen** (University of North Dakota, Grand Forks, USA), 21 Lutetia and the M-asteroids: Summary of a near-IR spectral survey, 8. Jul. 2010

**Paul Abell** (NASA Johnson Space Center, Houston, USA), The Hayabusa Re-entry and Recovery Operation, 22. Jul. 2010

**Sanjay Gosan** (Udaipur Solar Observatory, India), Flare related changes in the solar magnetic and velocity fields: Hinode and MDI observations, 26. Jul. 2010

**Cathleen Geiger** (Department of Geography, University of Delaware, Newark, USA), Impact of geometric roughness on altimetry-derived products, 5. Aug. 2010

**K.R. Sreenivasan** (New York University, USA), Turbulent Mixing, 10. Aug. 2010

**Tongjiang Wang** (Catholic University of America and NASA/GSFC, Greenbelt, USA), Propagating density disturbances in coronal loops: waves or flows?, 11. Aug. 2010

**Michiel van Noort** (Institute for Solar Physics, Stockholm, Sweden), Restoration of Inhomogeneous Spectro-Polarimetric Solar Image Data, 13. Aug. 2010

**Sanjiv Kumar Tiwari** (Udaipur Solar Observatory, India), Helicity of the Solar Magnetic Field, 18. Aug. 2010

- Kris Murawski** (M. Curie-Sklodowska University, Lublin, Poland), Alfvén Waves in the Solar Atmosphere, 31. Aug. 2010
- Charles F. Kennel** (Scripps Institution of Oceanography, La Jolla, USA), Climate Change Adaptation and Knowledge Action Networks, 2. Sep. 2010
- Evgeny Panov** (Space Research Institute, Graz, Austria), Oscillatory braking of bursty bulk flows in the near-Earth plasma sheet and associated ionosphere response, 8. Sep. 2010
- Rainer Arlt** (Astrophysikalisches Institut Potsdam, Germany), Extending the solar butterfly diagram into the past, 7. Oct. 2010
- Elena V. Petrova** (Space Research Institute, Moscow, Russia), Light scattering by morphologically complex objects and the opposition effects, 28. Oct. 2010
- Werner Schmutz** (PMOD/WRC, Davos, Switzerland), Solar Irradiance - A triptych, 2. Nov. 2010
- Masahito Kubo** (National Astronomical Observatory of Japan, Tokyo, Japan), Decay of Sunspots - New insights from Hinode observations, 4. Nov. 2010

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

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

- Hardi Peter**, Structure and dynamics of the cool corona, 14. Jan. 2010
- Jeff Lee**, Linear and non-linear consequences of return-beam current flows in the solar atmosphere, 19. Jan. 2010
- Hannah Schunker**, Theoretical tools in local helioseismology, 26. Jan. 2010
- Jonathan Pietarila Graham**, Turbulent small-scale dynamo action in solar surface simulations, 02. Feb. 2010
- Jiansen He**, Solar wind originating from the boundary of an active region and from the polar coronal hole, 09. Feb. 2010
- Miroslav Barta**, AMR MHD simulations of cascading reconnection in solar flares, 16. Feb. 2010
- Shangbin Yang**, Magnetic helicity simulation in the solar atmosphere, 23. Feb. 2010
- Suguru Kamio**, Observations of a macrospicule associated with an X-ray jet, 09. Mar. 2010
- Werner Curdt**, Coronal convection, 23. Mar. 2010
- Jean Santos**, Electric currents in the solar atmosphere in the presence of magnetic null points, 27. Apr. 2010
- Robert Cameron**, Surface flux transport models: including observed tilt angle data, 11. May 2010
- Anna Pietarila**, Chromospheric dynamics with CRISP: high temporal and spatial resolution Ca II 854.2 nm data, 18. May 2010
- Philippe Kobel**, Why are magnetic elements at disk centre brighter in the quiet Sun than in active regions?, 14. Sep. 2010
- Sven Bingert**, Intermittent coronal heating with transient events in a numerical model, 30. Nov. 2010
- Hardi Peter**, Solar magnetism eXplorer (SolmeX), 07. Dec. 2010
- Luca Teriaca**, LEMUR (Large European Module for solar Ultraviolet Research), European contribution to JAXA's Solar-C mission, 14. Dec. 2010
- Davina Innes**, SPARK - Solar Particle Acceleration, Radiation and Kinetics, 16. Dec. 2010

**Seminar der Planetengruppe am MPS / *MPS Planetary Group Seminar***Vorträge von Mitgliedern der Planetengruppe / *Talks by members of the Planetary group*

**Paul Hartogh**, First results of the Herschel Space Observatory – Solar System Observations, 8. Jan. 2010

**Norbert Krupp**, Future Jupiter investigation with EJSM, 26. Feb. 2010

**Hermann Böhnhardt**, Main Belt Comets – what you always liked to know about, but you never dared to ask, 30. Apr. 2010

**Martin Hilchenbach**, X-rays – From synchrotron calibration campaigns to Mercury, 28. May 2010

**Nick Hoekzema**, Optical depth from shadows in orbiter images of Mars, 3. Sep. 2010

**Colin Snodgrass**, Rosetta's view of an asteroid collision, 15. Oct. 2010

**IMPRS Solar System Seminar ( $S^3$  Seminar)**

Drei Vorträge von Doktoranden über das Thema ihrer Doktorarbeit

*Three talks by students about their PhD project*

**Armando Gonzalez**, The origin of water in Jupiter stratosphere. Part II: Photochemistry

**Daniel Verscharen**, Compressive high-frequency waves riding on a Alfvén-cyclotron wave in a multi-fluid plasma

**Dennis Röhrbein**, Analysis of 3D-MHD simulations of solar magnetoconvection  
15. Dec. 2010

**Jinhye Park**, Dependence of solar proton events on their associated activities: Flare parameters

**Hyunnam Kim**, Ground-based solar observations at the Vacuum Tower Telescope VTT

**Minsup Jeong**, The basics of lunar photometry

1. Dec. 2010

**Lars Guicking**, Low-frequency magnetic field fluctuations at Venus

**Jong Yeob Park**, Development of an automatic program to count the number of sunspots using visual C++

**Judith de Patoul**, 3D reconstruction of polar plumes from the three vantage positions of STEREO/SECCHI A,B and SOHO/EIT using the Hough-wavelet transform

17. Nov. 2010

**Peter Kollmann**, Energetic particles at Saturn

**Kyoung Sun Lee**, Spectroscopic analysis of EUV brightenings in AR 10926 observed by Hinode/EIS

**Hongdal Jun**, Intrusion of a magnetic field through the overlying field in the solar atmosphere induced by ballooning instability

3. Nov. 2010

**Anne Angsmann**, Magnetic fields in the ionosphere of Venus

**Narges Fathalian**, Transverse oscillations of longitudinally stratified coronal loop systems

20. Oct. 2010

**Benjamin Beck**, Magneto-convection in cool stars - Introduction and first results

**Tilaye Tadesse**, Nonlinear force-free extrapolation of a SOLIS/VSM vector magnetogram in spherical geometry

**Maria Dasi**, Modelling solar irradiance with the use of simulated magnetograms

7. Jul. 2010



**Wieland Dietrich**, Lateral cmb heat flux variations as a model for Martian paleomagnetic field  
**Hendrik Kriegel**, Hybrid simulations of Enceladus' plasma interaction and comparison with Cassini magnetometer data

**Eugene Shalygin**, Synthetic images of the Venus surface based on VMC images  
30. Jun. 2010

**Vedat Tanriverdi**, Spectrum of the numerical geodynamo  
**Setareh Javadi**, Relative importance of compressional heating and current dissipation for the formation of coronal X-ray bright points

**Juanjo Piqueras**, Detector development for PHI onboard Solar Orbiter  
17. Jun. 2010

**Chemeda Ejeta**, Spectropolarimetry of the two faces of Saturn's moon Iapetus  
**Raphael Attie**, Soft-Xray emission related to magnetic reconnection  
**Ramy El Maarry**, What do Crater Floor Polygons and Sun Dried Tomatoes have in common?  
1. Jun. 2010

**Daniel Heißelmann**, Laboratory experiments on planetary rings: getting a handle on the 'handles'  
**Tino Riethmüller**, Bright points in the quiet Sun as observed in the visible and near UV by the balloon-born telescope Sunrise

**Arianna Piccialli**, Cyclostrophic wind in the mesosphere of Venus from Venus Express observations  
19. May 2010

**Yana Maneva**, Preferential heating and acceleration of fast solar wind ions - hybrid simulations  
5. May 2010

**Juan Sanchez**, An overview of asteroids  
**Philippe Bourdin**, 3D MHD coronal model on supercomputers, Granularity effects  
**Peter Kollmann**, Sources and sinks of energetic protons in Saturn's magnetosphere  
10. Mar. 2010

**Ferdinand Plaschke**, The magnetopause: a membrane under tension?  
**Joachim Müller**, A.I.K.E.F.: An adaptive hybrid model with application to fossil magnetic fields in Titan's ionosphere  
24. Feb. 2010

**Antoine Genetelli**, Photospheric flows and coronal dynamics  
**Ronny Lutz**, Searching exoplanets around evolved stars  
**Supriya Deshpande**, Study of temporal evolution of small scale magnetic features in the solar atmosphere  
10. Feb. 2010

**Daniel Verscharen**, Kinetics of solar wind turbulence - feedback on the proton distribution function  
**Dennis Röhrbein**, Analysis of 3D-MHD simulations of solar magneto-convection  
**Yacine Saidi**, A web-based system for travel-time sensitivity kernels computation  
27. Jan. 2010

**Armando Gonzalez**, The origin of water in Jupiter stratosphere. Part I: Introduction  
**Megha Bhatt**, Understanding lunar surface by combining SIR-2 and HySI spectrometers response  
**Ramy El Maarry**, Crater Floor Polygons (CFPs): Signs of desiccated Paleolakes on Mars?  
13. Jan. 2010

## 6. Lehrtätigkeit / *Lectures*

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

**Joerg Büchner:** Physik der Sonne, Heliosphäre und des Weltraumwetters - Teil I (Georg August Universität Göttingen, Germany; WS 2009/10 and WS 2010/11)

Physik der Sonne, Heliosphäre und des Weltraumwetters - Teil II (Georg August Universität Göttingen, Germany; SS 2010)

**Laurent Gizon:** Forschungsschwerpunkt: Astro- und Geophysik (Georg August Universität Göttingen, Germany; WS 2009/10)

Data analysis in astrophysics (Georg August Universität Göttingen, Germany; WS 2009/10)

Asteroseismology (Georg August Universität Göttingen, Germany; SS 2010)

**Rainald Kallenbach:** Physics of Collisionless Plasmas (Universität Bern, Switzerland; Spring 2010)

**Harald Krüger:** Entstehung von Sonnensystemen (Georg August Universität Göttingen, Germany; WS 2009/10 and WS 2010/11)

**Norbert Krupp:** Outer Planets Magnetospheres (National Central University, Taiwan; Nov. 2010)

**Maria Loukitcheva:** Radio Astronomy (Saint Petersburg State University, Russia; Spring 2010)

**Hardi Peter:** Solar Eclipses and coronal physics (Georg August Universität Göttingen, Germany; SS 2010)

**Manfred Schuessler:** Solar magnetic field (Universität Bochum, Germany; Winter School, Feb. 2010).

Good Scientific Practice (GRK Wandlitz, Germany; May 2010 and GRK Goslar, Germany; Nov. 2010)

**Sami K. Solanki:** Solar Instrumentation (School of Space Research, Kyung-Hee University, Korea; Sep.-Dec. 2010)

**Vytenis M. Vasyliūnas:** Heliophysics Summer School (UCAR, Boulder, USA; July/Aug. 2010)

### IMPRS-Vorlesungen / *IMPRS Lectures*

**Solar Corona and Solar Wind**, E. Marsch, H. Peter, 1–5 March 2010

**Helio- and Asteroseismology**, L. Gizon, 12–16 July 2010

**Retreat**, Gut Froberg, 27 September – 1 October 2010

**Intercultural aspects in international research projects**, S. Preusse, V. Bahr (Karlsruhe)

**Presentation skills**, K. Meyer-Ross (Dresden)

**Space Instrumentation**, S. Solanki, P. Barthol, H. Bönnhardt, W. Curdt, A. Feller, M. Fränz, A. Gandorfer, F. Goesmann, M. Hilchenbach, C. Jarchow, R. Kallenbach, H. Krüger, U. Mall, R. Meller, A. Nathues, I. Richter, U. Schühle, 25–29 October 2010

**Integration of Partial Differential Equations**, T. Wiegmann, 22–26 November 2010

## 7. Tagungen und Workshops *Conferences and workshop*

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

**Hermann Boehnhardt:** „Dynamical and Physical properties of Trans-Neptunian Objects“, Philadelphia (USA), June 2010; 5th Philae post-launch science team workshop, Milton Keynes (UK), June 2010

**Joerg Büchner:** „Theory and Simulation of Solar System Plasmas“, EGU General Assembly, Vienna (Austria), May 2010; Session D24\_E34 on Reconnection, COSPAR 38th Scientific Assembly, Bremen (Germany), July 2010

**Patrick Daly:** 11th Cluster Cross-Cal Meeting, Goslar (Germany), Apr. 2010

**Markus Fraenz:** Mars Aeronomy Workshop, MPS, Lindau (Germany), Jan. 2010

**Laurent Gizon:** SOC, HELAS IV International Conference, “Seismological Challenges for Stellar Structure,” Lanzarote (Spain), Feb. 2010; SOC, GONG 2010/SOHO 24 Conference, Aix-en-Provence (France), June/July 2010; GDC-SDO workshop, Nörten-Hardenberg (Germany), Dec. 2010

**Elena Kronberg:** 11th Cluster Cross-Cal Meeting, Goslar (Germany), Apr. 2010

**Natalie Krivova:** Session A1.1, COSPAR 38th Scientific Assembly, Bremen (Germany), July 2010

**Harald Krüger:** „Dusty Visions 2010“, Göttingen (Germany), July 2010

**Norbert Krup:** Aurora workshop, Liege (Belgium), Oct. 2010; The 51th Cassini Project Science Group Meeting, Munich (Germany), June 2010; Alfven conference, Sapporo (Japan), Oct. 2010

**Urs Mall:** Chandryaan-1 Remote Sensing Intercalibration Workshop, Mainz (Germany), July 2010

### 7.2 Convener bei wissenschaftlichen Tagungen *Convener during scientific meetings*

**Joerg Büchner:** Annual meeting of the German Physical Society, Bonn (Germany), March 2010; Annual meeting German Society for Extraterrestrial Research, Bonn (Germany), March 2010

**Ulrich Christensen:** EGU General Assembly, Vienna (Austria), May 2010

**Walter Goetz:** AGU Fall Meeting, San Francisco (USA), Dec. 2010

**Paul Hartogh:** AOGS 7th Annual General Meeting, Hyderabad (India), July 2010

**Davina Innes:** COSPAR 38th Scientific Assembly, Bremen (Germany), July 2010

**Natalie Krivova:** COSPAR 38th Scientific Assembly, Bremen (Germany), July 2010

**Harald Krüger:** COSPAR 38th Scientific Assembly, Bremen (Germany), July 2010

**Urs Mall:** AOGS 7th Annual General Meeting, Hyderabad (India), July 2010

**Wojciech Markiewicz:** EGU General Assembly, Vienna (Austria), May 2010

**Miriam Rengel:** EGU General Assembly, Vienna (Austria), May 2010

**Johannes Wicht:** EGU General Assembly, Vienna (Austria), May 2010

## 8. Gutachtertätigkeit für wissenschaftliche Zeitschriften

### *Reviews for scientific journals*

Insgesamt wurden mehr als 160 Artikel für wissenschaftliche Zeitschriften von 32 Wissenschaftlern des MPS begutachtet.

*In total more than 160 articles for scientific journals were reviewed by 32 different scientists of the MPS.*

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

H. Boehnhardt, J. Büchner, R. Bucik, U. Christensen, M. Fraenz, A. Gandorfer, L. Gizon, S. Haaland, P. Hartogh, J. Hirzberger, B. Inhester, D. Innes, N. Krivova, E. Kronberg, H. Krüger, A. Lagg, U. Mall, W. Markiewicz, E. Marsch, H. Peter, M. Rengel, E. Roussos, D. Schmitt, S. Schroeder, U. Schuehle, H. Schunker, C. Snodgrass, S.K. Solanki, V. Vasiliunas, J. Wicht, T. Wiegmann, K. Wilhelm, J. Woch.

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

Journal of Geophysical Research (22)

Astrophysical Journal (18)

Geophysical Research Letters (15)

Solar Physics (13)

Planetary and Space Science (12)

Astronomy & Astrophysics (10)

Advances in Space Research (8)

Annales Geophysicae, Icarus (7)

Physical Review Letters (6)

Physics of Plasmas, Space Science Reviews (4)

Astrophysical Journal Letters, Geophysical & Astrophysical Fluid Dynamics, Journal of Atmospheric and Solar-Terrestrial Physics, Nature, Nonlinear Processes in Geophysics (3 each)

Atmospheric Chemistry and Physics, Earth & Planetary Science Letters, Journal of Fluid Dynamics, Science (2 each)

Advances in Space Research, Advances in Geosciences, Advances in Science and Research, Astronomische Nachrichten, Environmental Research Letters, Journal of Computational Physics, Monthly Notices of the Royal Astronomical Society, Physica Scripta, Plasma Physics and Controlled Fusion (1 each)

## 9. Herausgebortätigkeit / *Editorship*

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

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

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

**Ulrich Christensen:** Planetary magnetism (Editors: Christensen, U.R., Balogh, A., Breuer, D., Glaßmeier, K.H.), Springer, NYC, 2010

**Paul Hartogh:** Atmospheric Chemistry and Physics (Co-Editor), Advances in Geophysics

**Eckart Marsch:** Living Reviews in Solar Physics (Editorial Board)

**Hardi Peter:** Astronomy & Astrophysics (Associate Editor)

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

**Sami K. Solanki:** Living Reviews in Solar Physics (Editor in Chief); Solar Physics (Editorial Board)

**Klaus Wilhelm:** Observing Photons in Space (Editors: M. C. E. Huber, A. Pauluhn, J. L. Culhane, J. G. Timothy, K. Wilhelm and A. Zehnder), ISSI, Bern, 2010

## 10. Mitgliedschaft in wissenschaftlichen Gremien

### *Membership in scientific councils*

**Joerg Büchner:** Head of the "Arbeitsgemeinschaft Extraterrestrische Forschung"; Head of the Extraterrestrial Physics Section of the DPG (German Physical Society); Space Research Advisory Board of the Swedish National Space Board (SNSB)

**Ulrich Christensen:** Executive Committee of the International Association of Seismology and Physics of the Earth's Interior (IASPEI)

**Laurent Gizon:** Board Member, PLATO Mission Consortium; Coordinator, Definition Phase Studies of PLATO Data Center; Coordinator, Assessment Phase Studies of PLATO Data Analysis System; Collaborator, NASA SDO Science Center (Helioseismology); Solar Orbiter Science Definition Team; SOLAR-C Plan A Study Team; Organizing Committee, IAU Division II Commission 12 "Solar Radiation and Structure"; Board Member, European Helio- and Asteroseismology Network (HELAS); Chairman, Local Helioseismology Network Activity, HELAS Network.

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

**Norbert Krupp:** Science definition Team for EISM/Laplace

**Eckart Marsch:** DLR Gutachterausschuss

**Hardi Peter:** Commission on "Sun & Heliosphere" of the Arbeitsgemeinschaft Extraterrestrische Forschung

**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 HAO; Chairman of the Advisory Committee of the GWDG