

**MIHÁLY HORÁNYI - Curriculum Vitae**

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**OFFICE ADDRESS**

University of Colorado  
Laboratory for Atmospheric and Space Physics    Department of Physics  
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**PERSONAL**

Born in Budapest, Hungary  
US citizen, married, three children

**EDUCATION**

Ph.D. (Space Physics)    Loránd Eötvös University,    Budapest, Hungary, 1982  
M.S. (Nuclear Physics)    Loránd Eötvös University,    Budapest, Hungary, 1980

**PROFESSIONAL EXPERIENCE**

Director, NASA Solar System Exploration Research Virtual Institute (SSERVI): Institute for Modeling Plasmas, Atmospheres, and Cosmic Dust (IMPACT), 2014 - 2022

Director, NASA Lunar Science Institute: Colorado Center for Lunar Dust and Atmospheric Studies, 2008 - 2013

Humboldt Fellow, Max Planck Institute for Extraterrestrial Physics, Munich, Germany, 2006 - 2007

Associate Chair for Graduate Studies, Physics Department, University of Colorado, 2005 - 2006

Professor, Physics Department, University of Colorado, 2003 -

Associate Professor, Physics Department, University of Colorado, 1999 - 2003

Research Associate, Laboratory for Atmospheric and Space Physics, University of Colorado, 1992 -

Research Associate, Lunar and Planetary Laboratory, University of Arizona, 1989 - 1992

Visiting Scientist, Center for Space Research and Radio Astronomy, Cornell University, 1989

Research Scientist, Supercomputer Computational Research Institute, Florida State University, 1985 - 1989

Research Associate, Space Physics Research Laboratory, University of Michigan, 1984 - 1985

Research Associate, Central Research Institute for Physics, Budapest, 1982 - 1984

## RESEARCH INTEREST

Space and laboratory plasmas. Electrodynamic processes and their role in the origin and evolution of the solar system. Comets, planetary rings, plasma surface interactions at moons and asteroids. In situ and remote observations of dust, and space hardware development. Dusty plasma physics in industrial manufacturing and environmental protection applications.

## AWARDS

Fellow, American Physical Society, 2003

Fellow, Alexander von Humboldt Foundation, Germany, 2006

Fellow, American Geophysical Union, 2008

CU Boulder, ΣΠΣ Physics Professor of the Year, 2005

CU Boulder, Award for Excellence in Research, Scholarly, and Creative Work, 2006

Stardust Award of the International Dusty Plasma Physics Community, 2014

Asteroid 1998 AX9 is named 164701 Horanyi by the International Astronomical Union, 2018

## NASA Group Achievement Awards

New Horizons Venetia Burney Student Dust Counter (VBSDC), 2007

Cassini Cosmic Dust Analyzer (CDA), 2009

LADEE Lunar Dust Experiment (LDEX), 2013

New Horizons Mission, 2016

Cassini Cosmic Dust Analyzer (CDA), 2018

## MEMBERSHIP

American Physical Society

American Geophysical Union

Elected Member, URSI (Commission H)

American Astronomical Society, Division of Planetary Sciences

American Association for the Advancement of Science

## SELECTED PROFESSIONAL ACTIVITIES

### Space missions

Principal Investigator: New Horizons Pluto Mission Student Dust Counter (SDC), 2002 -

Principal Investigator: AIM Mission Cosmic Dust Experiment (CDE), 2002 - 2012

Principal Investigator: LADEE Lunar Dust Experiment (LDEX), 2009 - 2015

Principal Investigator: IMAP Interstellar Dust Experiment (IDEX), 2018 -

Co-Investigator: Rosetta Plasma Consortium (PI: K. Glaßmeier, Germany) 1997 - 2018

Co-Investigator: Galileo Dust Detector System (PI: E. Grün, Germany), 1998 - 2003

Co-Investigator: Cassini Cosmic Dust Analyzer (PI: R. Srama, Germany), 2000- 2018

Co-Investigator: Europa Clipper Surface Dust Analyzer (PI: S. Kempf, USA), 2016-

### Books and journals

Associate Editor: Journal of Geophysical Research - Space Physics 1997–2001

Editor: ‘Physics of Dusty Plasmas’, eds: M. Horányi, S. Robertson and B. Walch, American Institute of Physics, 1998

Editor: ‘Physics of Dusty Plasmas’, eds: S. Robertson, Z. Sternovsky, M. Horányi, *IEEE Transactions on Plasma Science*, April 1, 2010

Editor: ‘Lunar Dust Atmosphere and Plasma: The Next Steps (LDAP-2010)’, M. Horányi, A. Stern, *Planetary and Space Sci.* November 1, 2011

Editor: ‘Dust Atmosphere and Plasma: Moon and Small Bodies Next Steps (DAP-2012)’,  
M. Horányi, A. Stern, *Planetary and Space Sci.* December 1, 2013  
Editor: ‘Dust Atmosphere and Plasma: Moon and Small Bodies Next Steps (DAP-2017)’,  
M. Horányi, A. Stern, *Planetary and Space Sci.*, July, 2018.

## **SERVICE**

### **National/international service**

NASA Discovery Program Science Review Panel, 1996  
NASA Advisory Committee on Solar System Exploration, 1999  
NASA Micro-Gravity Fluids Science Review Panel, 2000, Chair 2004  
NASA Planetary Atmospheres Program Science Review Panel, 2000  
NASA Planetary Geology and Geophysics Program Science Review Panel, 2000  
NSF Planetary Astronomy Program Science Review Panel, Chair, 2003  
National Academy of Sciences Review Board ‘Plasma Physics of the Local Cosmos’, 2004  
NASA Lunar Dust Toxicity Project Review Board, 2007–2008  
NASA Lunar Atmosphere and Dust Explorer (LADEE) Science Definition Team, 2008  
NASA Lunar Advanced Science and Exploration Research Review Panel, Chair, 2009  
Organizer, Dust, Plasmas, Atmospheres (DAP) Workshops in Boulder, CO, 2010, 2012, 2017  
Organizer, US Workshops on the Physics of Dusty Plasmas 1989, 1997, 2009  
Organizing Committee International Conference on the Physics of Dusty Plasmas (ICPDP)  
in Goa, India 1996; Hakone, Japan 1999; Durban, South Africa 2002; Orleans,  
France 2005; Azores, Portugal 2008; Garmisch-Partenkirchen, Germany 2011; New Delhi,  
India 2014; Prague, Czech Republic 2017  
NASA Planetary Data System Small Bodies Node Advisory Board, 2011 - 2018  
NASA Advisory Council (NAC) Planetary Science Subcommittee (PSS), 2012-6  
Editorial Board of the journal *Plasma*, 2016 -  
NASA OSIRIS-REx Participating Scientist Selection Panel, 2017  
NASA Cassini Data Analysis Program Review Panel, Chair, 2018  
National Academy of Sciences Space Studies Board Gateway Science Review Panel, 2018  
NASA Small Bodies Assessment Group (SBAG) Steering Committee, 2020 -  
NASA Physical Sciences Informatics (PSI) Program Review Panel, 2021

### **University of Colorado**

Physics Comprehensive Exam Committee, 1999, Chair 2000 - 2005, 2017-2020  
Physics Executive / Chair Advisory Committee, 2008 - 2011, 2022 -  
Physics Graduate Committee, 2000 - 2004, Chair 2006 - 2007, 2014-2015  
Physics Evaluation Committee, 2003-2004, 2017-2018  
Physics Research Strategic Planning Committee, Chair 2016  
Physics Strategic Planning Committee, Chair 2017 - 2018  
Physics Strategic Plan Implementation Committee, 2019, Chair 2020 -2021  
Physics Faculty Search Committee, 2009-2010, 2020 - 2021  
Physics Graduate Student mentor, 2021 - 2023  
Physics Hiring Plan Committee, 2021  
LASP Program Review Committee, 1999  
LASP Executive Committee, 2002 - 2006  
LASP Faculty Search Committee, 2001, Chair 2010 - 2011, Chair 2019 - 2020

**RESEARCH GRANTS** as Principal Investigator (since 2000, total > \$50M)

NASA	Dusty Plasmas in Planetary Magnetospheres	\$225K	2000 - 2003
NASA	Cassini Cosmic Dust Analyzer (CDA)	\$690K	2000 - 2009
NASA	Cassini Cosmic Dust Analyzer (CDA)	\$360K	2010 - 2012
NASA	Cassini Cosmic Dust Analyzer (CDA)	\$1.0M	2012 - 2017
DOE	Fundamentals of Dusty Plasmas	\$450K	2001 - 2004
NASA	New Horizons Student Dust Counter (SDC)	\$1.6M	2002 - 2006
NASA	New Horizons Student Dust Counter (SDC)	\$2.2M	2007 - 2024
NASA	AIM Mission Cosmic Dust Experiment (CDE)	\$1.6M	2003 - 2006
NASA	AIM Mission Cosmic Dust Experiment (CDE)	\$600K	2007 - 2012
NASA	Dusty Plasma Issues for Surfaces in Space	\$680K	2005 - 2008
NASA	Lunar Advanced Science and Exploration Research	\$600K	2008 - 2012
NASA	Center for Lunar Dust and Atmospheric Studies	\$5.0M	2009 - 2013
NASA	Lunar Dust Experiment for the LADEE Mission	\$6.2M	2009 - 2013
NASA	Institute for Modeling Atmosphere, and Cosmic Dust	\$6.0M	2013 - 2018
NASA	Institute for Modeling Atmosphere, and Cosmic Dust	\$3.8M	2019 - 2024
NASA	Rosetta Plasma Observation	\$600K	2014 - 2017
NASA	Constraining Na and K in the Lunar Exosphere	\$120K	2016 - 2019
NASA	Understanding dust dynamics in Saturn's E-ring	\$600K	2016 - 2020
NASA	IMAP Mission Interstellar Dust Experiment (IDEX)	\$15 M	2018 - 2025
JPL	Identifying Planetary Mixed Materials	\$440K	2020 - 2022
NASA	Modeling Lunar Dust Behavior	\$750K	2020 - 2024
ASML	Dust Deposition in Semiconductor Manufacturing	\$200K	2021 - 2022
NASA	Lunar Meteoroid Monitor (LMM)	\$3.0M	2022 - 2025

**RESEARCH GRANTS** as Co-Principal Investigator (since 2000)

NASA	Charged Aerosols in the Mesosphere	\$108K	2000 - 2003
NASA	Mesospheric Sampling Spectrometer	\$670K	2003 - 2005
NASA	Mesospheric Aerosol Spectrometer Instrument	\$310K	2005 - 2008
NASA	Large Area Mass Analyzer	\$350K	2005 - 2006
ASML	Dust Deposition in Semiconductor Manufacturing	\$300K	2022 - 2024

## HONORS THESIS, GRADUATE STUDENTS, and POSTDOCS

Olga Kalashnikova	Masters	2000
Byron Smiley	Ph.D.	2003
Zoltan Sternovsky	Postdoc	2003
Corinne E. Krauss	Ph.D.	2004
Keegan Amyx	Masters	2004
Andrew R. Poppe	Summa Cum Laude	2006
Collin Mitchell	Ph.D.	2006
David James	Ph.D.	2009
Nicholas L. Bunch	Magna Cum Laude	2010
Dong Han	Masters	2010
Andrew Collette	Postdoc	2010 - 2013
Hsiang-Wen (Sean) Hsu	Postdoc	2011 - 2014
Andrew R. Poppe	Ph.D.	2011
Addie Dove	Ph.D.	2012
Anthony P. Rasca	Ph.D.	2013
Jamey R. Szalay	Ph.D.	2015
Jan Deca	Postdoc	2015
Michael Gerard	Cum Laude	2015
Jan Deca	Postdoc	2015 - 2018
Juliet Pilewskie	Summa Cum Laude	2018
Marcus Piquette	Ph.D.	2019
Noah F. Hood	Summa Cum Laude	2020
Anthony M. Carroll	Summa Cum Laude	2020
Joseph Samaniego	Ph.D.	2020
Ethan R. Ayari	Summa Cum Laude	2021
Alex C. Doner	Summa Cum Laude	2021
Li Hsia Yeo	Ph.D.	2021
Edwin Bernardoni	Ph.D.	2022
Ethan Ayari	Ph.D.	
Alex Doner	Ph.D.	

## COURSES TAUGHT

Fall 1999	Graduate Planetary Seminar	PHYS 7830/ASTR 5835
Spring 2000	Energy in a Technical Society	PHYS/ENVS 3070
Fall 2000	Methods of Theoretical Physics	PHYS 2140
Spring 2001	Analytical Mechanics	PHYS 3210
Fall 2001	Energy in a Technical Society	PHYS/ENVS 3070
Spring 2002	Methods of Theoretical Physics	PHYS 2140
Fall 2002	Energy in a Technical Society	PHYS/ENVS 3070
Spring 2003	Electricity and Magnetism I	PHYS 3310
	Graduate Planetary Seminar	PHYS 7830/ASTR 5835
Fall 2003	Electricity and Magnetism II	PHYS 3320
Spring 2004	Electricity and Magnetism I	PHYS 3310
Fall 2004	Electricity and Magnetism II	PHYS 3320
Spring 2005	Foundations of Modern Physics	PHYS 2170
Fall 2005	Mechanics and its Mathematical Methods I	PHYS 2210
Spring 2006	Mechanics and its Mathematical Methods II	PHYS 3210
Fall 2007	Mechanics and its Mathematical Methods II	PHYS 3210
Spring 2008	Foundations of Modern Physics	PHYS 2170
Fall 2008	Graduate Mechanics	PHYS 5210
Spring 2009	Graduate Plasma Physics	PHYS/ASTR 5150
Fall 2009	General Physics I	PHYS 1110
Spring 2010	Graduate Plasma Physics	PHYS/ASTR 5150
	Graduate Planetary Seminar	ASTR/GEOL 5835
Fall 2010	General Physics I	PHYS 1110
Spring 2011	Electricity and Magnetism I	PHYS 3310
Fall 2011	Electricity and Magnetism I	PHYS 3310
	Graduate Planetary Seminar	ASTR/GEOL 5835
Spring 2012	General Physics II Honors	PHYS 1120 H
Fall 2012	General Physics II	PHYS 1120
Spring 2013	General Physics II Honors	PHYS 1120 H
Fall 2014	General Physics III	PHYS 2130
Spring 2015	General Physics I	PHYS 2010
Fall 2015	General Physics I Honors	PHYS 1110 H
Spring 2016	Graduate Plasma Physics	PHYS/ASTR 5150
Fall 2016	General Physics I Honors	PHYS 1110 H
Spring 2017	General Physics II Honors	PHYS 1120 H
Fall 2017	General Physics I	PHYS 2010
Spring 2018	Electricity and Magnetism II	PHYS 3320
Fall 2018	General Physics II	PHYS 2020
Spring 2019	Graduate Plasma Physics	PHYS/ASTR 5150
Fall 2019	Electricity and Magnetism I	PHYS 3310
Spring 2020	General Physics I	PHYS 2010
Fall 2020	Sound and Music	PHYS 1240
Spring 2021	Sound and Music	PHYS 1240
Fall 2021	General Physics I	PHYS 1115
Fall 2022	Electricity and Magnetism I	PHYS 3310

**REFEREED PUBLICATIONS** (Google Scholar: >15,000 citations, *h* index = 64)

\*student first author

- 1, T.I. Gombosi, **M. Horányi**, T.E. Cravens, A.F. Nagy, C.T. Russell, The role of charge exchange in the solar wind absorption by Venus, *Geophys. Res. Lett.* 8, 1265, 1981
- 2, **M. Horányi**, K. Kecskemety, Percolation theory and the origin of comets, in: *Cometary Exploration*, ed: T.I. Gombosi, 1, 21, 1983
- 3, **M. Horányi**, T.I. Gombosi, T.E. Cravens, K. Kecskemety, A.F. Nagy, The friable sponge model of a cometary nucleus I in: *Cometary Exploration*, ed: T.I. Gombosi, 1, 59, 1983
- 4, T.I. Gombosi, **M. Horányi**, K. Kecskemety, T.E. Cravens, A.F. Nagy, Charge exchange in the solar wind cometary interaction, *Astrophys. J.* 268, 889, 1983
- 5, C.T. Russell, T.I. Gombosi, **M. Horányi**, T.E. Cravens, A.F. Nagy, Charge exchange in the magneto-sheaths of Venus and Mars, *Geophys. Res. Lett.* 10, 163, 1983
- 6, **M. Horányi**, K. Kecskemety, Cometary dust, *Asteroids, Comets, Meteors*, Uppsala 269, 1983
- 7, **M. Horányi**, T.I. Gombosi, T.E. Cravens, K. Kecskemety, A.F. Nagy, Korosmezey, The friable sponge model of a cometary nucleus, *Astrophys. J.* 278, 449, 1984
- 8, **M. Horányi**, D.A. Mendis, Trajectories of charged dust grains in the cometary environment, *Astrophys. J.* 294, 357, 1985
- 9, **M. Horányi**, D.A. Mendis, The dynamics of charged dust grains in the tail of comet Giacobini-Zinner, *J. Geophys. Res.* 355, 91, 1986
- 10, **M. Horányi**, D.A. Mendis, Space debris: Electrodynamic effects, *Adv. in Space Res.* 6, 127, 1986
- 11, T.I. Gombosi, **M. Horányi**, Modeling of dust halo formation following comet outbursts, *Geophys. Res. Lett.* 13, 299, 1986
- 12, **M. Horányi**, D.A. Mendis, The effects of electrostatic charging on the dust distribution at Halley's comet, *Astrophys. J.* 307, 800, 1986
- 13, T.I. Gombosi, **M. Horányi**, Time-dependent numerical modeling of dust halo formation at comets, *Astrophys. J.* 311, 491, 1986
- 14, **M. Horányi**, D.A. Mendis, The effect of a sector boundary crossing on the cometary dust-tail, *Earth, Moon and Planets* 37, 71, 1987
- 15, **M. Horányi**, T.E. Cravens, J.H. Waite, Jr., Jovian ion precipitation and related aeronomy, *J. Geophys. Res.* 93, 7251, 1988
- 16, **M. Horányi**, H.L.F. Houppis, D.A. Mendis, Charged dust in the Earth's magnetosphere, *Astronomy and Space Sci.* 144, 215, 1988
- 17, **M. Horányi**, The distribution of charged dust in the Earth's magnetosphere, in: *Outstanding problems in Solar System Exploration, AGU Geophysical Monograph* 54, 457, 1989
- 18, **M. Horányi**, C.K. Goertz, The coagulation of dust particles in a plasma, *Astrophys. J.* 361, 155, 1990
- 19, **M. Horányi**, J.A. Burns, M. Tatrallyay, J.G. Luhmann, Towards Understanding the Fate of Dust Lost from the Martian Satellites, *Geophys. Res. Lett.* 17, 853, 1990
- 20, \*Lu Gan, T.E. Cravens and **M. Horányi**, Electrons in the Ionopause Boundary Layer of Venus, *J. Geophys. Res.* 95, 19023, 1990

- 21, M. Horányi**, The spatial distribution of sub-micron sized debris in the terrestrial magnetosphere, *Adv. in Space Res.* 10, 403, 1990
- 22, D.A. Mendis, M. Horányi**, Dust-Plasma Interaction in the Cometary Environment, in: Cometary Plasma Processes, *AGU Monograph 61*, 17, 1991
- 23, M. Horányi, D.A.Mendis**, The Electrodynamics of Charged dust in the Cometary Environment, in: COMETS, eds: R.Newburn, M. Neugebauer, J. Rahe, Kluwer Academic Publishers, 1991
- 24, M. Horányi, M.Tatrallyay, A. Juhasz, J.G. Luhmann**, The Dynamics of Sub-micron-sized Dust Particles Lost from Phobos, *J. Geophys. Res.* 96, 11283, 1991
- 25, M.Horányi, J.A. Burns**, Charged Dust Dynamics: Orbital Resonances Due to Planetary Shadows, *J. Geophys. Res.* 96, 19283, 1991
- 26, L.L. Hood and M. Horányi**, Gas Dynamic Heating of Chondrule Precursor Grains in the Solar Nebula, *Icarus 93*, 259, 1991
- 27, J.L. Lunine, S. Engel, B. Rizk and M.Horányi**, Sublimation and Reformation of Icy Grains in the Primitive Solar Nebula, *Icarus 94*, 333, 1991
- 28, M. Horányi, J.A. Burns, D. Hamilton**, The Dynamics and Origin of Saturn's E ring, *Icarus 97*, 248, 1992
- 29, M.Tatrallyay, M.Horányi, A. Juhasz, J.G. Luhmann**, Sub-micron Sized Dust Grains in the Martian Environment, *Adv. in Space Res.* 12, (9)27, 1992
- 30, \*A. Juhasz, M. Tatrallyay, G. Gevai and M. Horányi**, The Density of Dust Halo Around Mars, *J. Geophys. Res.* 98, 1205, 1993
- 31, E.Grün, H.A. Zook, M. Baguhl, A. Balogh, S.J. Bame, H. Fechtig, R. Forsyth, M.S. Hanner, M. Horányi, J. Kissel, B.-A. Lindblad, D. Linkert, G. Linkert, I. Mann, J.A.M. McDonnell, G.E. Morfill, J.L. Phillips, C. Polanskey, G. Schwehm, N. Siddique, P. Staubach, J. Svetska and A. Taylor**, Ulysses discovers dust emissions from Jupiter and probable interstellar grains, *Nature 362*, 428, 1993
- 32, M. Horányi, E. Grün, G. Morfill**, Mechanism for the acceleration and ejection of dust grains from Jupiter's magnetosphere, *Nature 363*, 144, 1993
- 33, M. Horányi, E. Grün, G. Morfill**, The dusty ballerina skirt of Jupiter, *J. Geophys. Res.* 98, 21245, 1993
- 34, L.L. Hood and M. Horányi**, The Nebular Shock Wave Model for Chondrule Formation: One-Dimensional Calculations, *Icarus 106*, 179, 1993
- 35, \*R.M. Canup, J.E. Colwell and M. Horányi**, Size distributions of Satellite Dust Ejecta: Effects of Radiation Pressure and Planetary Oblateness, *Icarus 105*, 363, 1993
- 36, M. Horányi and C.C. Porco**, Where exactly are the arcs of Neptune?, *Icarus 106*, 525, 1993
- 37, M. Horányi**, Dust in Planetary Magnetospheres, *Adv. Space. Res.* 13, (10)231, 1993
- 38, D.A. Mendis and M. Horányi**, Dust-Plasma Interaction in the Environment of Solar System Bodies of Negligible Intrinsic Magnetization, *COSPAR Colloquia Series 4*, 187, 1993
- 39, B. Walch, M. Horányi, and S. Robertson**, Measurement of the charging of individual dust grains in a plasma, *IEEE Trans. Plasma Science* 22, 97, 1994
- 40, E. Grün, D.P. Hamilton, M. Baguhl, R. Riemann, M. Horányi and C. Polanskey**, Dust streams from comet Shoemaker-Levy 9, *Geophys. Res. Lett.* 21, 1035, 1994



- 41, M. Horányi**, New Jovian ring?, *Geophys. Res. Lett.* *21*, 1039, 1994
- 42, M. Horányi**, G. Morfill, C.K. Goertz and E.H. Levy, Chondrule formation in lightning discharges, *Icarus* *114*, 174, 1994
- 43, J.T. Clarke**, R. Prange, G. Ballester, J. Trauger, D. Rego, R. Evans, K. Stapelfeldt, W.-H. Ip, F. Paresce, J-C. Gerard, H. Hammel, M. Ballav, L. B. Jaffel, J-L. Bertaux, D. Crisp, C. Emerich, W. Harris, **M. Horányi**, S. Miller, A. Storrs, H. Weaver, Hubble Space Telescope Far-Ultraviolet Imaging of Jupiter During the Impacts of Comet Shoemaker-Levy 9, *Science* *267*, 1302, 1994
- 44, M. Horányi**, B. Walch and S. Robertson, Electrostatic charging properties of lunar dust simulants JSC-1 and MLS-1, *Geophys. Res. Lett.* *22*, 2079, 1995
- 45, B. Walch, M. Horányi**, and S. Robertson, Charging of Dust Grains in Plasma with Energetic Electrons, *Phys. Rev. Lett.* *75*, 838, 1995
- 46, \*A. Juhasz and M. Horányi**, The dust torus around Mars, *J. Geophys. Res.* *100*, 3277, 1995
- 47, M. Horányi** and S. Robertson, Chondrule Formation in Lightning Discharges: Status of Theory and Experiments, in: *Chondrules and the Protoplanetary Disk*, eds: R.H. Hewins, R.H. Jones and E.R.D. Scott, Cambridge University Press, New York, 1996
- 48, J.E. Colwell and M. Horányi**, Magnetospheric effects on micro-meteoroid fluxes, *J. Geophys. Res.* *101*, 2169, 1996
- 49, E. Grün**, M. Baguhl, D.P. Hamilton, R. Riemann, H.A. Zook, S. Dermott, H. Fechtig, B.A. Gustafson, M.S. Hanner, **M. Horányi**, K.K. Khurana, J. Kissel, M. Kivelson, B.A. Lindblad, D. Linkert, G. Linkert, I. Mann, J.A.M. McDonnell, G.E. Morfill, C. Polanskey, G. Schwehm and R. Srama, Constrains from Galileo observations on the origin of Jovian dust streams, *Nature* *381*, 395, 1996
- 50, M. Horányi**, Charged Dust Dynamics in the Solar System, *Ann. Rev. Astron. Astrophys.* *34*, 383, 1996
- 51, M. Horányi** and T.E. Cravens, The Structure of the Jovian Ring, *Nature* *381*, 293, 1996
- 52, E. Grün**, D. Hamilton, R. Riemann, S. Dermott, H. Fechtig, B.A. Gustafson, M.S. Hanner, A. Heck, **M. Horányi**, J. Kissel, H. Kruger, B.A. Lindblad, D. Linkert, G. Linkert, I. Mann, J.A.M. McDonnell, G.E. Morfill, C. Polanskey, G. Schwemm, R. Srama, H.A. Zook, Dust Measurements During Galileo's Approach to Jupiter and Io encounter, *Science* *274*, 399, 1996
- 53, M. Horányi**, Unusual Dynamics of Circumplanetary Dust, in: *Inventory of the Solar System*, ed: T.W. Rettig and J.M. Hahn, Astronomical Society of the Pacific, 107, 129, 1996
- 54, E. Grün**, P. Staubach, M. Baguhl, D.P. Hamilton, H.A. Zook, S. Dermott, B.A. Gustafson, H. Fechtig, J. Kissel, D. Linkert, G. Linkert, R. Srama, M. Hanner, C. Polanskey, **M. Horányi**, B.A. Lindblad, I. Mann, J.A.M. McDonnell, G.E. Morfill and G. Schwehm, South-North and Radial Traverses Through the Zodiacal Cloud, *Icarus* *129*, 270, 1997
- 55, A. Juhasz and M. Horányi**, Dynamics of charged space debris in the Earth's plasma environment, *J. Geophys. Res.* *102*, 7237, 1997
- 56, E. Grün**, H. Krüger, S. Dermott, H. Fechtig, A. L. Graps, B. A. Gustafson, D. P. Hamilton, M. S. Hanner, A. Heck, **M. Horányi**, J. Kissel, B. A. Lindblad, D. Linkert, G. Linkert, I. Mann, J. A. M. McDonnell, G. E. Morfill, C. Polanskey, G. Schwehm, R. Srama,

- H. A. Zook, Dust measurements in the Jovian magnetosphere, *Geophys. Res. Lett.* 24, 2171, 1997
- 57, M. Horányi**, E. Grün, A. Heck, Modeling the Galileo dust measurements at Jupiter, *Geophys. Res. Lett.* 24, 2175, 1997
- 58**, D.W. Rusch, C.E. Randall, M.T. Callan, **M. Horányi**, R.T. Clancy, S.C. Solomon, S.J. Oltmans, B.J. Johnson, U. Koehler, H. Claude and D. De Muer, A New Inversion for SAGE II Data, *J. Geophys. Res.* 103, 8465, 1998
- 59, M. Horányi**, B. Walch, S. Robertson and D. Alexander, Electrostatic charging properties of Apollo-17 lunar dust, *J. Geophys. Res.* 103, 8575, 1998
- 60**, J. Colwell, **M. Horányi** and E. Grün, Jupiter's Exogenic Dust Ring, *J. Geophys. Res.* 103, 20023, 1998
- 61**, E. Grün, H. Krüger, A. L. Graps, D. P. Hamilton, A. Heck, G. Linkert, H. A. Zook, S. Dermott, H. Fechtig, B. A. Gustafson, M. S. Hanner, **M. Horányi**, J. Kissel, B. A. Lindblad, D. Linkert, I. Mann, J. A. M. McDonnell, G. E. Morfill, C. Polanskey, G. Schwehm, R. Srama, Galileo Observers Electro-magnetically Coupled Dust in the Jovian Magnetosphere, *J. Geophys. Res.* 103, 20011, 1998
- 62**, J. Colwell, **M. Horányi**, E. Grün, Capture of Interplanetary and Interstellar Dust by the Jovian Magnetosphere, *Science* 280, 88, 1998
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Methods and Devices for Cleaning Dust from a Surface. Inventors: Xu Wang, Mihály Horányi, Benjamin Farr, John Goree, Inseob Hahn and Ulf Israelsson. Application No. 17/881,880, filed on August 5, 2022.

## INVITED TALKS (since 1996):

1, ‘Dusty Plasmas in the Early/Present Solar System’, Workshop on the Formation of Stars and Planetary Systems, Munich, Germany (2/96)

2, ‘Charged dust dynamics in the Jovian Magnetosphere’, Int. Conf. on the Physics of Dusty Plasmas, Goa, India (10/96)

3, ‘Dust in the Earth’s magnetosphere’, AGU, Baltimore (5/97)

4, ‘Dusty Plasmas in Space’, Strongly Coupled Coulomb Systems, Boston, Mass. (8/97)

5, ‘Dusty Plasmas in the Early Solar System’, AGU, San Francisco, CA (12/97)

6, ‘Dusty Plasmas in Magnetospheres’, Plasma Astrophysics Meeting, Lindau, Germany (5/98)

7, ‘Dust Input into the Earth’s Atmosphere’, CEDAR, Boulder (6/98)

8, ‘Dusty Plasmas in Space’, Latin American Space Geophysics, San Jose, Costa Rica (11/98)

9, ‘Dusty Plasmas in the Mesosphere’, URSI, Boulder, CO (1/99)

10, ‘Dusty Plasma Simulations at Jupiter’, URSI, Boulder, CO (1/99)

11, ‘Jovian Dust Streams’, Int. Conf. on the Physics of Dusty Plasmas, Hakone, Japan (5/99)

12, ‘Dusty Plasmas’, Int. Conf. on the Physics of Dusty Plasmas, Hakone, Japan (5/99)

- 13, 'Dusty Plasmas in Magnetospheres', IAGA, Birmingham, UK (7/99)
- 14, 'Dust Plasma Interaction in Planetary Magnetospheres', MOP, Paris, France (8/99)
- 15, 'Dusty Plasmas in Space', APS Div. Plasma Science, Seattle, WA (11/99)
- 16, 'Charged Dust Dynamics', Colloidal Plasmas, Trieste, Italy (7/00)
- 17, 'Dust Plasma Interactions in Planetary Magnetospheres', Symposium for E. Grün's 60th birthday, Heidelberg, Germany (4/2002)
- 18, 'Dusty Plasmas in the Solar System', Int. Conf. on the Physics of Dusty Plasmas, Durban, South Africa (5/2002)
- 19, 'Dusty Plasma Effects at Jupiter and Saturn', EGS, Nice, France (4/2003)
- 20, 'Dust Plasma Interaction in Saturn's Magnetosphere', Saturn Universe: Cassini Workshop, Capri, Italy, 2004
- 21, 'Dusty Plasma Effects in Saturn's Rings', APS, U. of Colorado, Colloquium, 2004
- 22, 'Dusty Plasmas', HAO/NCAR Colloquium, Boulder, 2004
- 23, 'Dusty Plasma Effects on the surfaces of the Moon and Mars', AGU, San Francisco (12/2004)
- 24, 'Dusty Plasmas in the Solar System', EGU, Vienna, Austria (4/2005)
- 25, 'Dusty Plasmas in Saturn's magnetosphere: Cassini observations', Int.Conf. on the Physics of Dusty Plasmas, Orleans, France (6/2005)
- 26, 'Dusty Plasmas in Space', IPELS, Tromso, Norway (8/2005)
- 27, 'Dusty Plasmas at Saturn', Symposium for G.E. Morfill's 60th birthday, Munich, Germany (8/2005)
- 28, 'Planetary Rings', Dust in Planetary Systems, Hawaii (9/2005)
- 29, 'The Student Dust Counter', AGU (12/2005)
- 30, 'Cosmic Dust Input into the Atmosphere of the Earth', AGU (12/2005)
- 31, 'Dusty Plasma Effects on Surfaces in Space', COSPAR, Beijing, China (7/2006)
- 32, 'The AIM Mission', COSPAR, Beijing, China (7/2006)
- 33, 'Dusty Plasmas in Planetary Rings', European Planetary Science Congress, Berlin, Germany (9/2006)
- 34, 'Dusty Plasmas on the Lunar Surface', AGU (12/2006)
- 35, 'Dusty Plasmas on the Lunar Surface', Lunar Exploration Architecture Workshop, Tempe, AZ (2/2007)
- 36, 'Dusty Plasmas in the Solar System', Max Planck Institute for Physics, München, Germany (4/2007)
- 37, 'Dusty Plasmas in Planetary Rings', University of Jena, Germany (6/2007)
- 38, 'Dusty Plasma Effects in Saturn's Rings', University of Kiel, Germany (6/2007)
- 39, 'Surface Plasma Interactions on the Moon', ICPDP-5, Azores, Portugal (5/2008)
- 40, 'Dusty Plasmas on the Lunar Surface', University of Kansas, Lawrence, KS (11/2008)
- 41, 'Dusty Plasmas in the Solar System', Rice University, Houston, TX (11/2008)
- 42, 'Charging of Planetary Rings', AGU (12/2008)
- 43, 'In Situ Measurements of Interplanetary and Interstellar Dust', UC Irvine, CA (03/2010)

- 44, 'Charged dust in the Solar System: Direct and Indirect Evidence', AAS, Miami, FL (5/2010)
- 45, 'Plasma Physics of the Lunar Surface', ICTP, Trieste, Italy (7/2010)
- 46, 'The Lunar Surface: A Dusty Plasma Laboratory', Robotic Science, Boulder, CO (10/2010)
- 47, 'Physics of the Lunar Surface', Colorado State University, Colorado Springs, CO (9/2011)
- 48, 'Solar wind plasma and UV effects on Surfaces in Space', AGU (12/2011)
- 49, 'The Lunar Surface: A Dusty Plasma Laboratory', ESA/ESTEC, Noordwijk, The Netherlands (4/2012)
- 50, 'Dusty Plasmas at the Lunar Surface', European Lunar Forum, Berlin, Germany (4/2012)
- 51, 'Plasma Physics 101 for Geologists', LunGradCom, NASA AMES, (7/2012)
- 52, 'Dusty Plasma Processes on the Surfaces of Airless Planetary Bodies', Lunar Science Forum (7/2012)
- 53, 'The Student Dust Counter onboard the New Horizons Mission to Pluto', 5th meeting on Cosmic Dust, Kobe, Japan (8/2012)
- 54, 'The Lunar Surface: A Dusty Plasma Laboratory', Moscow Solar System Symposium (10/2012)
- 55, 'The Student Dust Counter', LASP Public Lecture Series (11/2012)
- 56, 'Dusty Plasma Effects at Comets: Expectations for Rosetta', ESA/ESTEC, Noordwijk, The Netherlands (11/2012)
- 57, 'Dust: the Missing Strategic Knowledge Gap', NASA Small Bodies Assessment Group Meeting, Washington DC (1/2013)
- 58, 'Hypervelocity Dust Impacts in Space and the Laboratory', European Physical Society Plasma Physics Meeting, Helsinki, Finland (7/2013)
- 59, 'Dusty Plasmas in the Solar System', Heliospheric Summer School, Boulder, CO (7/2013)
- 60, 'The Student Dust Counter onboard the New Horizons Mission to Pluto', Pluto Science Conference, Baltimore, MD (7/2013)
- 61, 'The Lunar Surface: A Dusty Plasma Laboratory', Toronto, Canada (9/2013)
- 62, 'Institute for Modeling Plasmas, Atmospheres, and Cosmic Dust', NASA AMES (12/2013)
- 63, 'Grain Charging in Dusty Plasmas', AGU (12/2013)
- 64, 'Dust mobilization on the lunar surface', URSI (1/2014)
- 65, 'Dusty Plasmas in Space and the Laboratory', ICPDP, Delhi, India (3/2014)
- 66, 'The LADEE Mission', Denver Space Society', (3/2014)
- 67, 'The lunar dust environment: first results from LDEX', LASP, (3/2014)
- 68, 'First results from LDEX', EGU, Vienna, (4/2014)
- 69, 'The lunar dust environment', Kyung Hee University, Suwon, S. Korea (5/2014)
- 70, 'New Dust measurements in the Solar System', Sao Paulo, Brasil (8/2014)
- 71, 'Dusty Plasma Measurements in Space and the Laboratory', APS Meeting, Orem UT (10/2014)
- 72, 'Dust Measurements throughout the Solar System', AGU (12/2014)
- 73, 'Characterizing the Lunar Regolith: Laboratory and Space Experiments', Granular Matter in Low-Gravity, Erlangen, Germany (3/2015)

- 74, 'Charged dust measurements by the Lunar Dust Experiment', WPDP, Auburn AL (5/2015)
- 75, 'Sources of Dust in the Solar System', Workshop on Cosmic Dust, Boulder, CO (7/2015)
- 76, 'The New Horizons Mission: First Results', Physics Colloquium, Boulder, CO (8/2015)
- 77, 'The New Horizons Mission to Pluto', Physics Colloquium, Lawrence, KS (11/2015)
- 78, 'The Rosetta Mission', Boulder, CO (11/2015)
- 79, 'The dust environment of Phobos and Deimos' at Mars, UCF Seminar Series, (11/2015)
- 80, 'The Dust Accelerator Facility at the University of Colorado', URSI, Boulder, CO (1/2016)
- 81, 'Dust Ablation in Pluto's Atmosphere', EGU, Vienna, (4/2016)
- 82, 'The Lunar Dust Environment', ESTEC, Noordwijk, The Netherlands (6/2016)
- 83, 'The Lunar Dust Environment', Moscow, Russia (10/2016)
- 84, 'The Moon: Our Closest Neighbor, Colorado School of Mines, Golden, CO (10/2016)
- 85, 'Dusty Plasmas in the Solar System', Colloquium, Colorado Springs, CO (4/2017)
- 86, 'Dust Measurements in the Solar System', National Central University, Taiwan (7/2017)
- 87, 'Interplanetary and Interstellar Dust Near Earth', Caltech, Pasadena, CA (8/2017)
- 88, 'The Lunar Dust Experiment onboard the LADEE mission', IRF, Kiruna, Sweden (9/2017)
- 89, 'Dust Environment of Airless Planetary Bodies', Colloquium, U. Potsdam, Germany (11/2017) and Friedrich-Schiller-Universität Jena, Germany (11/2017)
- 90, 'The Student Dust Counter Experiment', Colloquium, U. of Colorado (2/2018).
- 91, 'The Dust Environment of the Moon', European Lunar Forum, Toulouse, France, (5/2018)
- 92, 'The effects of dust charging in space and the laboratory', SCTC-2018, Kobe, Japan (6/2018)
- 93, 'Dust Environment of the Moon', Symposium on Space Innovation, Atlanta, GA (11/2019)
- 94, 'The Effects of Hypervelocity Dust Impacts', ISSI, Bern, Switzerland (1/2020)
- 95, 'The Lunar Dust Environment based on LADEE Results', ISSI, Bern, Switzerland (1/2020)
- 96, 'Lunar Dust Environment: Hazards and Opportunities', NESC Lunar Dust Workshop, Houston, TX (1/2020)
- 97, 'Dust Charging, mobilization, and transport on airless planetary bodies', International Online Seminar on Dusty Plasmas (4/2020)
- 98, 'The dust environment of the Moon', Colloquium, DLR - Institute for Materials Physics in Space, Köln, Germany (6/2020)
- 99, 'LDEX Observations of the lunar dust environment, Lunar Surface Science Virtual Workshop (8/2020)
- 100, 'Lunar Dust Environment', Taiwan Lunar Virtual Workshop (10/2020)
- 101, 'Dusty Plasmas: Space and Industrial Applications, ASML Workshop, Netherlands (10/2020)
- 102, 'Dust Measurements in Space', AGU (12/2020)

- 103**, ‘The Circum-Solar Dust Disk: Ground Truth for Planetary Formation’, Interstellar Probe Mission Webinar (4/22/2021)
- 104**, ‘Modeling Lunar Dust Behavior to Advance the Effectiveness of Dust Mitigation Techniques’, Lunar Surface Innovation Consortium Webinar (5/12/2021)
- 105**, ‘Dust measurements in the Kuiper Belt’, New Horizons Workshop, (7/15/2021)
- 106**, ‘Student Dust Counter capabilities’, Outer Heliosphere Workshop, (Boulder, 7/22/2021)
- 107**, ‘New Horizons Student Dust Counter (SDC) Results’, NH Science Meeting (Wallace, Idaho, 9/2022)
- 108**, ‘Interstellar Dust Experiment (IDEX) : Expected Science Results’, IMAP Meeting (Santa Fe, NM, 11/2022)
- 109**, ‘Understanding Lunar Dust Behavior for Dust Mitigation Techniques’, NASA Early Stage Innovation Webinars (12/2022)

## PUBLISHED PROCEEDINGS

- 1**, T.E. Cravens, T.I. Gombosi, B.E. Gribov, **M. Horányi**, K. Kecskemety, The role of electric fields in the cometary environment, *MTA-KFKI-41*, 1984
- 2**, G. Bhanot, A. Hasenfratz, **M. Horányi**, Diffusion limited aggregation at constant asymptotic density, *FSU-SCRI-86*, 47, 1986
- 3**, **M. Horányi**, The charge and motion of small grains in the terrestrial magnetosphere, *Physics of Dusty Plasmas*, eds.: M. Horányi and H.L.F. Houpis, Tallahassee, Florida 1987
- 4**, **M. Horányi**, Dusty Plasmas in the Solar System, *Physics of Dusty Plasmas*, eds: T.P. Armstrong and T.E. Cravens, Lawrence, Kansas 1988
- 5**, M.Horányi, Dust Plasma Interaction in the Solar System, *First Capri Workshop on Dusty Plasmas*, Capri, Italy 1989
- 6**, L. L. Hood, **M. Horányi**, Gas Dynamic Heating of Chondrule Precursor Grains: Mechanisms for Generation of Nebular Shock Waves *23rd Lunar and Planetary Science Conference* (1992), Abstract #1274
- 7**, H. A. Zook, E. Grün, M. Baguhl, A. Balogh, S. J. Bame, H. Fechtig, R. Forsyth, M. S. Hanner, **M. Horányi**, J. Kissel , On dust emissions from the jovian system, *24th Lunar and Planetary Science Conference* (1993), Abstract #1795
- 8**, L. L. Hood, **M. Horányi**, Gas-grain energy transfer in solar nebula shock waves: Implications for the origin of chondrules, *24th Lunar and Planetary Science Conference* (1993), Abstract #1336
- 9**, **M. Horányi**, S. Robertson and B. Walch, Laboratory Measurements of Dust Charging in Plasmas, in: *The Physics of Dusty Plasmas*, eds: P.K. Shukla, D.A. Mendis and V.W. Chow, World Scientific Press, 1996
- 10**, **M. Horányi**, Charged Dust Dynamics in Planetary Magnetospheres, in: *The Physics of Dusty Plasmas*, eds: P.K. Shukla, D.A. Mendis and V.W. Chow, World Scientific Press, 1996
- 11**, **M. Horányi**, Dust in the Jovian magnetosphere: from the smallest moons to the heaviest plasma species, in: *The Physics of Dusty Plasmas*, ed: P.K. Shukla, World Scientific Press, 1997
- 12**, **M. Horányi**, Lightning and Shock Heating as Candidate Processes for Chondrule

- Formation, *Workshop on Parent Body and Nebular Modification of Chondritic Materials* (1997), Abstract #4067
- 13**, S. Robertson, J. Frenslar, B. Walch and **M. Horányi**, Measuring Heavy Charged Particles in the Laboratory and the Mesosphere, in: *The Physics of Dusty Plasmas*, ed: P.K. Shukla, World Scientific Press, 1997
- 14**, **M. Horányi**, Dust Dynamics in Planetary Magnetospheres, in: *Strongly Coupled Coulomb Systems*, ed: G. Kalman, Plenum Press, 1998
- 15**, B. Walch, M. Horányi and S. Robertson, Electrostatic charging of Lunar Dust, in: *Physics of Dusty Plasmas*, eds: **M. Horányi**, S. Robertson and B. Walch, American Institute of Physics 446, 271, 1998
- 16**, S. Robertson, **M. Horányi**, Laboratory Experiments Relating to Noctilucent Clouds, in: *Physics of Dusty Plasmas*, eds: **M. Horányi**, S. Robertson and B. Walch, American Institute of Physics 446, 286, 1998
- 17**, **M. Horányi**, Dust from Jupiter's Magnetosphere, in: *Physics of Dusty Plasmas*, eds: **M. Horányi**, S. Robertson and B. Walch, American Institute of Physics 446, 291, 1998
- 18**, **M. Horányi**, B. Walch, S. Robertson, Electrostatic Charging of Lunar Dust, *29th Lunar and Planetary Science Conference* (1998), Abstract #1527
- 19**, J.E. Colwell, **M. Horányi**, E. Grün, Captured Dust in Planetary Magnetospheres, in: *Physics of Dusty Plasmas*, eds: **M. Horányi**, S. Robertson and B. Walch, American Institute of Physics 446, 291, 1998
- 20**, C. C. Porco, R. H. Brown, A. Del Genio, T. Dowling, A. Harris, **M. Horányi**, D. Lin, P. Nicholson, J. Spencer, T. Spilker, Astrophysical Analogs in the Solar System: A Campaign for Solar System Exploration, *30th Lunar and Planetary Science Conference* (1999), Abstract #1800
- 21**, E. Grün, M. Landgraf, H. Svedhem, **M. Horányi**, Galactic Dust Measurements Near Earth *30th Lunar and Planetary Science Conference* (1999), Abstract #1405
- 22**, A. Sickafoose, J. Colwell, **M. Horányi**, S. Robertson, B. Walch, Photoelectric Charging of Dust Particles, *Frontiers in Dusty Plasmas*, eds: J. Nakamura and P. Shukla, Elsevier Science, 367, 2000
- 23**, **M. Horányi**, S. Robertson, Dust Charging in the Laboratory and in Space, *Frontiers in Dusty Plasmas*, eds: J. Nakamura and P. Shukla, Elsevier Science, 313, 2000
- 24**, S. Robertson, **M. Horányi**, B. Smiley, A Rocket-borne Detector for Charged Atmospheric Aerosols, *Frontiers in Dusty Plasmas*, eds: J. Nakamura and P. Shukla, Elsevier Science, 275, 2000
- 25**, R. H. Hewins, B. Zanda, **M. Horányi**, S. Robertson, D. J. Den Hartog, G. Fiksel, The Trouble with Flash Heating, *31st Lunar and Planetary Science Conference* (2000), Abstract #1675
- 26**, A. A. Sickafoose, J. E. Colwell, M. Horányi, S. Robertson, Dust Particle Charging near Surfaces in Space, *32nd Lunar and Planetary Science Conference* (2001), Abstract #1320
- 27**, **M. Horányi**, G. Lawrence, P. Withnell, A. Tuzzolino, R. B. McKibben, S. Auer, E. Grün, G. Schwehm, H. Svedhem, DMOSS: Dust Measurements in the Outer Solar System, *Forum on Innovative Approaches to Outer Planetary Exploration 2001-2020* (2001), Abstract #4074
- 28**, A.A. Sickafoose, J.E. Colwell, **M. Horányi**, S. Robertson, Experimental Dust Levitation

- in a Plasma Sheath near a Surface, *AIP*, 619, 235, eds.: R. Bharuthram, M.A. Hellberg, P.K. Shukla, F. Verheest, 2002
- 29**, C.E. Krauss, **M. Horányi**, S. Robertson, Discharging of Dust near the Surface of Mars, *AIP*, 619, 309, eds.: R. Bharuthram, M.A. Hellberg, P.K. Shukla, F. Verheest, 2002
- 30**, J.E. Colwell, **M. Horányi**, S. Robertson, A.A. Sickafoose, Levitation and transport of charged dust over surfaces in space, *AIP*, 619, 438, eds.: R. Bharuthram, M.A. Hellberg, P.K. Shukla, F. Verheest, 2002
- 31**, A. A. Sickafoose, J. E. Colwell, **M. Horányi**, S. Robertson, Dust Levitation in a Plasma Sheath Near a Surface, *33rd Lunar and Planetary Science Conference* (2002), Abstract #1743
- 32**, C.J. Mitchell, **M. Horányi**, J.E. Howard, Validity of Epicyclic Description of Saturnian Dust Grain Orbits, *AIP*, 649, 398, eds.: R. Bharuthram, M.A. Hellberg, P.K. Shukla, F. Verheest, 2002
- 33**, Z. Sternovsky, **M. Horányi**, S. Robertson, Lunar and Martian dust charging on surfaces, *AIP*, 619, 402, eds.: R. Bharuthram, M.A. Hellberg, P.K. Shukla, F. Verheest, 2002
- 34**, **M. Horányi**, Dusty Plasmas in the Solar System, *AIP*, 619, 22, eds.: R. Bharuthram, M.A. Hellberg, P.K. Shukla, F. Verheest, 2002
- 35**, H. Krüger, R. Srama, T. V. Johnson, H. Henkel, H. von Hoerner, A. Koch, **M. Horányi**, E. Grün, J. Kissel, F. Krueger, A Secondary Ion Mass Analyzer for Remote Surface Composition Analysis of the Galilean Moons, *Forum on Concepts and Approaches for Jupiter Icy Moon Orbiter* (2003), Abstract #9011
- 36**, E. Grün, R. Srama, S. Helfert, S. Kempf, G. Moragas-Klostermeyer, M. Rachev, A. Srowig, S. Auer, **M. Horányi**, Z. Sternovsky, D. Harris. Prospects of a Dust Astronomy Mission, *Dust in Planetary Systems* (2005), Abstract #4058
- 37**, S. Kempf, R. Srama, M. Horányi, M. Burton, E. Grün, Interaction of Saturnian Dust Streams with the Solar Wind, *Dust in Planetary Systems* (2005), Abstract #4052
- 38**, Z. Sternovsky, **M. Horányi**, K. Amyx, S. Robertson, G. Bano, E. Grün, R. Srama, S. Auer. Development of the Large Area Mass Analyzer, *Dust in Planetary Systems* (2005), Abstract #4017
- 39**, A. Juhasz, **M. Horányi**, The E Ring of Saturn: Models Versus Observations, *Dust in Planetary Systems* (2005), Abstract #4015
- 40**, J. E. Colwell, **M. Horányi**, S. Robertson, P. Wheeler, Behavior of Charged Dust in Plasma and Photoelectron Sheaths, *Dust in Planetary Systems* (2005), Abstract #4008
- M. Horányi**, Dusty Plasma Effects in Planetary Rings, *Dust in Planetary Systems* (2005), Abstract #4001
- 41**, R.L. McNutt, R.E. Gold, T. Krimigis, E.C. Roelof, M. Gruntman, G. Gloeckler, P.L. Koehn, W.S. Kurth, S.R. Oleson, D.I. Fiehler, **M. Horányi**, R.A. Mewaldt, J.C. Leary, B.J. Anderson, PHYSICS OF THE INNER HELIOSHEATH: Voyager Observations, Theory, and Future Prospects, *5th Annual IGPP International Astrophysics Conference. AIP Conference Proceedings 858*, 341-347, 2006
- 42**, Z. Sternovsky, **M. Horányi**, J. E. Colwell, S. Robertson, X. Wang, Near-Surface Dusty Environments of Planetary Objects, *37th Lunar and Planetary Science Conference* (2006), Abstract #1460
- 43**, M. Landgraf, E. Grün, R. Srama, S. Helfert, S. Kempf, G. Morgas-Klostermeyer, M.

- Rachev, A. Srowig, S. Auer, **M. Horányi**, Z. Sternovsky, D. Harris, The Sky in Dust, Methods and Prospects of Dust Astronomy, *37th Lunar and Planetary Science Conference* (2006), Abstract #1084
- 44**, M. Landgraf, G. Drolshagen, Z. Sternovsky, S. Knappmiller, **M. Horányi**, Simulating meteoroid impacts using high-powered lasers, *ESA Bulletin 130*, 57-61, 2007
- 45**, A. J. Westphal, R. K. Bastien, J. Borg, J. Bridges, D. E. Brownlee, M. J. Burchell, A. F. Cheng, B. C. Clark, Z. Djouadi, C. Floss, I. Franchi, Z. Gainsforth, G. Graham, S. F. Green, P. R. Heck, **M. Horányi**, P. Hoppe, F. P. Hörz, J. Huth, A. Kearsley, H. Leroux, K. Marhas, K. Nakamura-Messenger, S. A. Sandford, T. H. See, F. J. Stadermann, N. E. Teslich, S. Tsitirin, J. L. Warren, P. J. Wozniakiewicz, M. E. Zolensky, Non-Random Spatial Distribution of Impacts in the Stardust Cometary Collector, *38th Lunar and Planetary Science Conference* (2007), Abstract #1418
- 46**, V. Yaroshenko, **M. Horányi**, G. Morfill, The Wave Mechanism of Spoke Formation in Saturn's Rings, MULTIFACETS OF DUSTY PLASMAS: Fifth International Conference on the Physics of Dusty Plasmas., *AIP Conference Proceedings 1041*, pp. 215-216, 2008
- 47**, **M. Horányi**, X. Wang, S. Robertson, Z. Sternovsky, Surface-Plasma Interaction on the Moon, MULTIFACETS OF DUSTY PLASMAS: Fifth International Conference on the Physics of Dusty Plasmas., *AIP Conference Proceedings 1041*, pp. 113-116, 2008
- 48**, L. A. Leshin, W. M. Farrell, D. H. Crider, R. C. Elphic, P. D. Feldman, R. Hodges, **M. Horányi**, W. T. Kasprzak, R. Vondrak, S. McClard, B. P. Hine, W. S. Marshall, T. Morgan, S. Noble, K. Snook, The Lunar Atmosphere and Dust Environment Explorer Mission, *NLSI Lunar Science Conference* (2008), Abstract #2163
- 49**, E. Grün, **M. Horányi**, S. Auer, S. Robertson, R. Srama, Z. Sternovsky, Dust Telescope on the Lunar Surface, *NLSI Lunar Science Conference* (2008), Abstract #2132
- 50**, P. Messmer, **M. Horányi**, Z. Sternovsky, S. Robertson Kinetic Simulations of the Lunar Plasma Environment with the VORPAL Framework, *NLSI Lunar Science Conference* (2008), Abstract #2063
- 51**, T. Munsat, E. Grün, **M. Horányi**, S. Robertson, R. Srama, Z. Sternovsky, X. Wang, Micrometeorite Accelerator for Lunar Impact Studies: Needs and Capabilities, *NLSI Lunar Science Conference* (2008), Abstract #2062
- 52**, **M. Horányi**, E. Grün, T. Munsat, S. Robertson, Z. Sternovsky, X. Wang, Dusty Plasmas on the Lunar Surface, *NLSI Lunar Science Conference* (2008), Abstract #2043
- 53**, Z. Sternovsky, X. Wang, E. Grün, **M. Horányi**, T. Munsat, S. Robertson, The Lunar Surface Potential and Dust Mobilization near Sunlit-Shadowed Boundaries and Variation with Solar Activity, *NLSI Lunar Science Conference* (2008), Abstract #2042
- 54**, S. Robertson, **M. Horányi**, X. Wang, Plasma Probes for Photoelectrons at the Lunar Surface, *NLSI Lunar Science Conference* (2008), Abstract #2040
- 55**, X. Wang, **M. Horányi**, S. Robertson, Dust Transport on a Surface in Plasma, *NLSI Lunar Science Conference* (2008), Abstract #2024
- 56**, **M. Horányi**, Dust Astronomy, *Astro2010: The Astronomy and Astrophysics Decadal Survey*, Science White Papers, no. 134, 2009
- 57**, G. Delory, R. Elphic, T. Morgan, T. Colaprete, **M. Horányi**, P. Mahaffy, B. Hine, D. Boroson, The LADEE Mission, *40th Lunar and Planetary Science Conference*, id#2025, 2009



- 58**, M. Horányi, Z. Sternovsky, E. Grün, R. Srama, M. Lankton, D. Gathright, The Lunar Dust EXperiment (LDEX) on the Lunar Atmosphere and Dust Environment Explorer (LADEE) Mission, *40th Lunar and Planetary Science Conference* (2009), Abstract #1741
- 59**, T. Munsat, Z. Sternovsky, S. Robertson, E. Grün, M. Horányi, Lunar Dust Transport Package, *41st Lunar and Planetary Science Conference* (2010), Abstract #2538
- 60**, G. T. Delory, R. C. Elphic, A. Colaprete, P. Mahaffy, M. Horányi, The LADEE Mission: The Next Step After the Discovery of Water on the Moon, *41st Lunar and Planetary Science Conference* (2010), Abstract #2459
- 61**, A. Dove, S. Dickson, S. Robertson, Z. Sternovsky, X. Wang, M. Horányi, Characterization of a UV-generated Photoelectron Sheath, *41st Lunar and Planetary Science Conference* (2010), Abstract #2406
- 62**, A. R. Poppe, D. James, B. Jacobsmeyer, M. Horányi, Measurements of the Interplanetary Dust Population by the Venetia Burney Student Dust Counter on the New Horizons Mission, *41st Lunar and Planetary Science Conference* (2010), Abstract #1219
- 63**, A. R. Poppe, M. Horányi, Simulations of the Lunar Photoelectron Sheath and Associated Dust Grain Levitation Equilibria, *41st Lunar and Planetary Science Conference* (2010), Abstract #1218
- 64**, S. Knappmiller, J. Gumbel, M. Horányi, S. Robertson, Z. Sternovsky, Using DSMC Modeling of Rocket Aerodynamics as a Measurement Aid in the Mesosphere, *Next-Generation Suborbital Researchers Conference* (2010), Abstract #4020
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