Andrew Reinhold Poppe, Ph.D.

CONTACT INFORMATION

Space Sciences Laboratory
University of California, Berkeley
7 Gauss Way, Berkeley, CA 94720 USA

E-mail: poppe@berkeley.edu
Website: research.ssl.berkeley.edu/∼poppe/

EDUCATION

University of Colorado at Boulder, Boulder, Colorado USA — **May 2011**

Ph.D., Physics, Advisor: Prof. Mihály Horányi
Thesis: *Modeling, Theoretical and Observational Studies of the Lunar Photoelectron Sheath*

University of Colorado at Boulder, Boulder, Colorado USA — **May 2006**

B.A., Physics, Mathematics, *summa cum laude*, *with distinction*
Honors Thesis: *Modeling Photoelectron Sheaths with Particle-in-Cell Code*

RESEARCH EXPERIENCE

Space Sciences Laboratory
University of California at Berkeley, Berkeley, California USA

Deputy Associate Director for Planetary Science	**January 2024–present**
Associate Research Scientist	**July 2017–present**
Assistant Research Scientist	**July 2013–July 2017**
Postdoctoral Scholar	**July 2011–July 2013**

Laboratory for Atmospheric and Space Physics
University of Colorado at Boulder, Boulder, Colorado USA

Graduate Research Assistant	**August 2006–June 2011**
Undergraduate Research Assistant	**June 2004–August 2006**

FELLOWSHIPS

NASA Planetary Science Division, Early Career Fellow — **July 2016**

NASA Earth and Space Science Graduate Research Fellow — **Sep. 2008–May 2011**
Research Project: *The Dusty Plasma Environment of the Moon*

SERVICE

Associate Editor, *J. Geophys. Res.: Planets* — **May 2019–Feb 2024**

Reviewer, NASA Planetary Data System Small Bodies Node — **2013–2022**

Panelist, NASA ROSES Review Panels — **2013–present**

MISSION PARTICIPATION

New Horizons:

Co-Investigator & Heliophysics Science Lead	**Oct 2023 – present**
Co-Investigator & Deputy Heliophysics Science Lead	**Oct 2022 – Sep 2023**

Lead Graduate Student, Student Dust Counter (SDC) — **2006–2011**

THEMIS-ARTEMIS:

Deputy Principal Investigator, ARTEMIS	**Oct 2023 – present**
Co-Investigator	**2013 – present**

Aeronomy of Ice in the Mesosphere (AIM): — **2006–2011**
Lead Graduate Student, Cosmic Dust Experiment

Lunar Atmospheric and Dust Environment Explorer (LADEE): **2013–2014**
Guest Investigator, modeling/analysis of lunar exospheric pick-up ions with NMS & LDEX

Mentoring / Supervision

Postdoctoral Scholars

Dr. Quentin Nénon, Ph.D. Université de Toulouse; now a Staff Scientist at Centre National de la Recherche Scientifique, France **Apr 2019–Apr 2021**

Dr. Lucas Liuzzo, Ph.D. Georgia Institute of Technology; now an Asst. Research Scientist, Space Sciences Laboratory, U.C. Berkeley **Aug 2019–Jun 2022**

Dr. Mohammad Barani, Ph.D. West Virginia University **Oct 2021–Dec 2023**

Dr. Paul Szabo, Ph.D. Technische Universität Wien; now an Asst. Research Scientist, Space Sciences Laboratory, U.C. Berkeley **Oct 2021–March 2024**

Dr. Shane R. Carberry Mogan, Ph.D. New York University; currently a Postdoctoral Scholar at Space Sciences Laboratory, U.C. Berkeley **Aug 2022–present**

Dr. Mei-Yun Lin, Ph.D. Univ. Illinois, Urbana-Champaign; currently a Jack Eddy Postdoctoral Fellow at Space Sciences Laboratory, U.C. Berkeley **Oct 2023–present**

Undergraduate Students

Evan Imata, Dept. of Astrophysics, U.C. Berkeley **June 2022–June 2023**

Mathew Lin, Dept. of Physics, U.C. Berkeley **June 2022–May 2024**

Publications

– in press –

A. R. Poppe, P. Prem, S. Fatemi, and R. M. Killen, Hybrid plasma simulations of the solar wind interaction with an anthropogenic lunar exosphere, *Adv. Space Res.*, *in press*

– 2024 –

[143] L. Liuzzo, **A. R. Poppe**, C. O. Lee, and V. Angelopoulos, Solar Energetic Electron Access to the Moon within the Terrestrial Magnetotail and Shadowing by the Lunar Surface, *Geophys. Res. Lett.*, **51**, 2024

[142] M. Barani, **A. R. Poppe**, M. O. Fillingim, J. P. McFadden, J. S. Halekas, and D. G. Sibeck, A Study of Ionospheric Heavy Ions in the Terrestrial Magnetotail Using ARTEMIS, *J. Geophys. Res.: Space Physics*, **129**, 2024

[141] H.-W. Shen, J. S. Halekas, and **A. R. Poppe**, Dependence of Lunar Pickup ion Flux on Source Location: ARTEMIS Observations, *Astrophys. J.*, **967**(84), 2024

[140] L. Liuzzo, Q. Nénon, **A. R. Poppe**, A. Stahl, S. Simon, and S. Fatemi, On the Formation of Trapped Electron Radiation Belts at Ganymede, *Geophys. Res. Lett.*, **51**, 2024

[139](40) **A. R. Poppe**, I. Garrick-Bethell, S. Fatemi, and C. Grava, The lunar $^{40}Ar/^{36}Ar$ antiquity indicator in the presence of a lunar paleomagnetosphere, *Icarus*, **415**, 2024

[138] J. R. Szalay, J. Saur, D. J. McComas, F. Allegrini, F. Bagenal, S. J. Bolton, R. W. Ebert, T. K. Kim, G. Livadiotis, **A. R. Poppe**, P. Valek, R. J. Wilson, and E. J. Zirnstein, Europa modifies Jupiter's plasma sheet, *Geophys. Res. Lett.*, **51**, 2024

[137] X. Cao et al. (including **A. R. Poppe**), Science return of probing magnetospheric systems of ice giants, *Front. Astron. Space Sci.*, **11**, 2024

[136] P. S. Szabo, **A. R. Poppe**, A. Mutzke, L. Liuzzo, and S. R. Carberry Mogan, Backscattering of Ions Impacting Ganymede's Surface as a Source for Energetic Neutral Atoms, *Ap. J. Lett.*, **963**, 2024

[135] L. Liuzzo, **A. R. Poppe**, Q. Nénon, S. Simon, and P. Addison, Constraining the Influence of Callisto's Perturbed Electromagnetic Environment on Energetic Particle Observations, *J. Geophys. Res.: Space Physics*, **129**, 2024

[134] Y. Dong, D. A. Brain, R. Jarvinen, and **A. R. Poppe**, Localized Hybrid Simulation of Martian Crustal Magnetic Cusp Regions, *J. Geophys. Res.: Space Physics*, **129**, 2024

[133] A. Doner, M. Horányi, F. Bagenal, P. Brandt, W. Grundy, C. Lisse, J. Parker, **A. R. Poppe**, K. N. Singer, S. A. Stern, and A. Verbiscer, New Horizons Venetia Burney Student Dust Counter Observes Higher-than-expected Fluxes Approaching 60 AU, *Ap. J. Lett.*, **961**(L38), 2024

[132] B. L. Shrestha, E. J. Zirnstein, D. J. McComas, P. Brandt, S. A. Stern, H. A. Elliott, **A. R. Poppe**, K. N. Singer, and A. Verbiscer, Suprathermal H^+ Pickup Ion Tails in the Outer Heliosphere, *Astrophys. J.*, **960**(35), 2024

[131] A. Vorburger, S. Fatemi, A. Galli, L. Roth, L. Liuzzo, **A. R. Poppe**, S. R. Carberry Mogan, and P. Wurz, 3D Monte-Carlo Simulation of Ganymede's Exosphere, *Icarus*, **409**, 2024

– 2023 –

[130] W. M. Farrell et al. (including **A. R. Poppe**), The Dust, Atmosphere, and Plasma at the Moon, in *New Views of the Moon 2*, *Rev. Min. Geochem.*, **89**, 563-609, 2023

[129](39) **A. R. Poppe**, P. S. Szabo, E. R. Imata, L. Keller and R. Christoffersen, Solar Energetic Particle Track-production Rates at 1 au: Comparing In Situ Particle Fluxes with Lunar Sample-derived Track Densities, *Ap. J. Lett.*, **958**(L35), 2023

[128] H.-W. Shen, J. S. Halekas, and **A. R. Poppe**, Limits on the Density of the Lunar Ionosphere: ARTEMIS Observations, *Astrophys. J.*, **958**, 2023

[127] Q. Nénon, J. M. Raines, and **A. R. Poppe**, The long-term flux of the solar wind suprathermal ions that precipitate on the lunar surface, *J. Geophys. Res.: Planets*, **128**, 2023

[126] V. J. Sterken et al. (including **A. R. Poppe**), Synergies between interstellar dust and heliospheric science with an Interstellar Probe, *R. A. S. Tech. Inst.*, **2**, 532-547, 2023

[125] S. Xu, **A. R. Poppe**, P. S. Szabo, Y. Harada, J. S. Halekas, and P. C. Chamberlin, Characteristics of lunar surface electrons inferred from ARTEMIS observations. I: backscattered electrons, *J. Geophys. Res.: Planets*, **128**, 2023

[124] C. Haynes, T. Tippens, P. Addison, L. Liuzzo, **A. R. Poppe**, and S. Simon, Emission of Energetic Neutral Atoms from the Magnetosphere-Atmosphere Interactions at Callisto and Europa,

J. Geophys. Res.: Space Physics, **128**, 2023

[123] M. Kato, Y. Harada, S. Xu, **A. R. Poppe**, J. S. Halekas, Y. Miyake, H. Usui, M. N. Nishino, and T. Matsumoto, Modeling photoelectron and Auger electron emission from the sunlit lunar surface: A comparison with ARTEMIS observations, *J. Geophys. Res.: Space Physics*, **128**, 2023

[122] S. Li, **A. R. Poppe**, T. Orlando, B. M. Jones, O. J. Tucker, W. M. Farrell, and A. Hendrix, Formation of lunar surface water associated with high-energy electrons in Earth's magnetotail, *Nature Astro.*, 2023

[121] S. R. Carberry Mogan, L. Liuzzo, **A. R. Poppe**, S. Simon, J. R. Szalay, O. J. Tucker, and R. E. Johnson, Callisto's Atmosphere: The Oxygen Enigma, *J. Geophys. Res.: Planets*, **128**, 2023

[120] P. S. Szabo, **A. R. Poppe**, A. Mutzke, S. Fatemi, A. Vorburger, and P. Wurz, Energetic Neutral Atom (ENA) emission characteristics at the Moon and Mercury from 3D regolith simulations of solar wind reflection, *J. Geophys. Res.: Planets*, **128**, 2023

[119] L. Liuzzo, **A. R. Poppe**, C. O. Lee, S. Xu, and V. Angelopoulos, Unrestricted Solar Energetic Particle Access to the Moon While Within the Terrestrial Magnetotail, *Geophys. Res. Lett.*, **50**, 2023

[118] Y. Sarkango, J. R. Szalay, **A. R. Poppe**, Q. Nénon, P. Kollmann, G. Clark, and D. J. McComas, Proton equatorial pitch angle distributions in Jupiter's inner magnetosphere, *Geophys. Res. Lett.*, **50**, 2023

[117] T. Symons, M. Zemcov, A. Cooray, C. Lisse, and **A. R. Poppe**, A Measurement of the Cosmic Optical Background and Diffuse Galactic Light Scaling from the $R < 50$ AU New Horizons−LORRI Data, *Astrophys. J.*, **945**(45), 2023

[116] P. C. Brandt et al. (including **A. R. Poppe**), Future Exploration of the Outer Heliosphere and Very Local Interstellar Medium by Interstellar Probe, *Space Sci. Rev.*, **219**(18), 2023

[115](38) **A. R. Poppe** and S. Fatemi, The solar wind interaction with (1) Ceres: The role of interior conductivity, *Plan. Sci. J.*, **4**(14), 2023

– 2022 –

[114] A. Deniau, Q. Nénon, N. André, C. Mazelle, A. Rahmati, C. M. Fowler, **A. R. Poppe**, J. P. McFadden, and E. Penou, MAVEN proton observations near the Martian moon Phobos: does Phobos backscatter solar wind protons?, *Geophys. Res. Lett.*, **49**, 2022

[113] L. Liuzzo, **A. R. Poppe**, P. Addison, S. Simon, Q. Nénon, and C. Paranicas, Energetic Magnetospheric Particle Fluxes onto Callisto's Atmosphere, *J. Geophys. Res.: Space Physics*, **127**, 2022

[112] P. S. Szabo, **A. R. Poppe**, H. Biber, A. Mutzke, J. Pichler, N. Jäggi, A. Galli, P. Wurz, and F. Aumayr, Deducing Regolith Porosity from Energetic Neutral Atom Emission, *Geophys. Res. Lett.*, **49**, 2022

[111](37) **A. R. Poppe**, J. S. Halekas, and Y. Harada, A comprehensive model for pickup ion formation at the Moon, *J. Geophys. Res.: Planets*, **127**, 2022

[110] J. R. Szalay, H. T. Smith, E. J. Zirnstein, D. J. McComas, L. Begley, F. Bagenal, P. A.

Delamere, R. J. Wilson, P. Valek, **A. R. Poppe**, Q. Nénon, F. Allegrini, R. W. Ebert, and S. J. Bolton, Water-Group Pickup Ions From Europa-Genic Neutrals Orbiting Jupiter, *Geophys. Res. Lett.*, **49**, 2022

[109](36) **A. R. Poppe** and C. O. Lee, The effects of solar cycle variability on nanodust dynamics in the inner heliosphere: Predictions for future STEREO A/WAVES measurements, *J. Geophys. Res.: Space Physics*, **127**, 2022

[108] L. Liuzzo, **A. R. Poppe**, and J. S. Halekas, A Statistical Study of the Moon's Magnetotail Plasma Environment, *J. Geophys. Res.: Space Physics*, **127**, 2022

[107] E. Bernardoni, M. Horányi, A. Doner, M. Piquette, J. R. Szalay, **A. R. Poppe**, D. James, S. Hunziker, V. Sterken, P. Strub, C. Olkin, K. N. Singer, J. Spencer, A. Stern, and H. Weaver, Student Dust Counter status report: The first 50 AU, *Plan. Sci. J.*, **3**(69), 2022

[106] S. Fatemi, **A. R. Poppe**, A. Vorburger, J. Lindkvist, and M. Hamrin, Ion dynamics at the magnetopause of Ganymede, *J. Geophys. Res.: Space Physics*, **127**, 2022

[105] A. Pontoni, M. Shimoyama, Y. Futaana, S. Fatemi, **A. R. Poppe**, M. Wieser, and S. Barabash, Simulations of Energetic Neutral Atom Sputtering from Ganymede in Preparation for the JUICE Mission, *J. Geophys. Res.: Space Physics*, **127**, 2022

[104] A. Vorburger, S. Fatemi, A. Galli, L. Liuzzo, **A. R. Poppe**, and P. Wurz, 3D Monte-Carlo Simulation of Ganymede's Water Exosphere, *Icarus*, **375**, 2022

– 2021 –

[103] L. Liuzzo, C. Paty, C. Cochrane, T. Nordheim, A. Luspay-Kuti, J. Castillo-Rogez, K. Mandt, K. Mitchell, M. Holmström, P. Addison, S. Simon, **A. R. Poppe**, S. Vance, and L. Prockter, Triton's Interaction with Neptune's Magnetospheric Plasma, *J. Geophys. Res.: Space Physics*, **126**, 2021

[102] J. Deca, **A. R. Poppe**, A. Divin, and B. Lèmbege, The Plasma Environment Surrounding the Reiner Gamma Magnetic Anomaly, *J. Geophys. Res.: Space Physics*, **126**, 2021

[101](35) **A. R. Poppe**, S. Xu, L. Liuzzo, J. S. Halekas, and Y. Harada, ARTEMIS observations of lunar nightside surface potentials in the magnetotail lobes: Evidence for micrometeoroid impact charging, *Geophys. Res. Lett.*, **48**, 2021

[100] Q. Nénon and **A. R. Poppe**, Bombardment of lunar polar crater interiors by out-of-ecliptic ions: ARTEMIS observations, *Plan. Sci. J.*, **2**(116), 2021

[99] S. Xu, **A. R. Poppe**, Y. Harada, J. S. Halekas, and P. C. Chamberlin, Lunar photoemission yields inferred from ARTEMIS measurements, *J. Geophys. Res.: Planets*, **126**, 2021

[98] L. Liuzzo, **A. R. Poppe**, J. S. Halekas, S. Simon, X. Cao, Investigating the Moon's Interaction with the Terrestrial Magnetotail Lobe Plasma, *Geophys. Res. Lett.*, **48**, 2021

[97] R. Grimm, J. Castillo-Rogez, C. Raymond, and **A. R. Poppe**, Feasibility of Characterizing Subsurface Brines on Ceres by Electromagnetic Sounding, *Icarus*, **362**, 2021

[96](34) **A. R. Poppe**, I. Garrick-Bethell, and S. Fatemi, Fractionation of solar wind minor ion precipitation by the lunar paleo-magnetosphere, *Plan. Sci. J.*, **2**(60), 2021

[95] O. J. Tucker, W. M. Farrell, and **A. R. Poppe**, On the Effect of Magnetospheric Shielding on

the Lunar Hydrogen Cycle, *J. Geophys. Res.: Planets*, **126**, 2021

[94] Q. Nénon, **A. R. Poppe**, A. Rahmati, and J. P. McFadden, Implantation of Martian atmospheric ions within the regolith of Phobos, *Nature Geoscience*, **14**, 2021

[93] A. P. Rasca, S. Fatemi, W. M. Farrell, **A. R. Poppe**, and Y. Zheng, A Double Disturbed Lunar Plasma Wake, *J. Geophys. Res.: Space Physics*, **126**, 2021

[92](33) **A. R. Poppe**, D. A. Brain, Y. Dong, S. Xu, and R. Jarvinen, Particle-in-cell modeling of Martian magnetic cusps and their role in enhancing nightside ionospheric ion escape, *Geophys. Res. Lett.*, **48**, 2021

[91] T. R. Lauer et al. (including **A. R. Poppe**), *New Horizons* observations of the cosmic optical background, *Astrophys. J.*, **906**(77), 2021

[90] R. M. Killen, T. H. Morgan, A. E. Potter, G. Bacon, I. Ajang, and **A. R. Poppe**, Coronagraphic observations of the lunar sodium exosphere 2018-2019, *Icarus*, **355**, 2021

– 2020 –

[89] Q. Nénon and **A. R. Poppe**, On the long-term weathering of airless body surfaces by the heavy minor ions of the solar wind: inputs from ion observations and SRIM simulations, *Plan. Sci. J.*, **1**(3), 2020

[88](32) **A. R. Poppe** and C. O. Lee, The effects of solar wind structure on nanodust dynamics in the inner heliosphere, *J. Geophys. Res.: Space Physics*, **125**, 2020

[87] X. Cao, J. S. Halekas, F. Chu, M. Kistler, **A. R. Poppe**, K.-H. Glassmeier, Plasma Convection in the Terrestrial Magnetotail Lobes Measured near the Moon's Orbit, *Geophys. Res. Lett.*, **47**, 2020

[86] L. Liuzzo, **A. R. Poppe**, C. Paranicas, Q. Nénon, S. Fatemi, and S. Simon, Variability in the Energetic Electron Bombardment of Ganymede, *J. Geophys. Res.: Space Physics*, **125**, 2020

[85] S. Li, P. G. Lucey, A. A. Fraeman, **A. R. Poppe**, V. Z. Sun, D. M. Hurley, and P. H. Schultz, Widespread hematite at high latitudes of the Moon, *Sci. Adv.*, **6**, 2020

[84] S. Xu, **A. R. Poppe**, J. S. Halekas, and Y. Harada, Reflected protons in the lunar wake and their effects on wake potentials, *J. Geophys. Res.: Space Physics*, **125**, 2020

[83] X. Cao, J. S. Halekas, **A. R. Poppe**, F. Chu, and K. H. Glassmeier, The Acceleration of Lunar Ions by Magnetic Forces in the Terrestrial Magnetotail Lobes, *J. Geophys. Res.: Space Physics*, **125**, 2020

[82] J. Deca, D. J. Hemingway, A. Divin, C. Lue, **A. R. Poppe**, B. Lembège, and M. Horányi, Simulating the Reiner Gamma Swirl: the Long-term Effect of Solar Wind Standoff, *J. Geophys. Res.: Planets*, **125**, 2020

[81] S. Fatemi, **A. R. Poppe**, and S. Barabash, Hybrid simulations of solar wind precipitation to the surface of Mercury, *J. Geophys. Res.: Space Physics*, **125**, 2020

– 2019 –

[80] Q. Nénon, **A. R. Poppe**, A. Rahmati, C. O. Lee, J. P. McFadden, and C. M. Fowler, Phobos surface sputtering as inferred from MAVEN ion observations, *J. Geophys. Res.: Planets*, **124**, 2019

[79](31) **A. R. Poppe**, The contribution of Centaur-emitted dust to the interplanetary dust distribution, *Mon. Not. R. Astron. Soc.*, **490**, 2421-2429, 2019

[78] **A. R. Poppe**, C. M. Lisse, M. Piquette, M. Zemcov, M. Horányi, D. James, J. R. Szalay, E. Bernardoni, and S. A. Stern, Erratum: "Constraining the Solar System's Debris Disk with In Situ *New Horizons* Measurements from the Edgeworth-Kuiper Belt", *Astrophys. J. Lett.*, **882**, *L14*, 2019

[77](30) **A. R. Poppe**, C. M. Lisse, M. Piquette, M. Zemcov, M. Horányi, D. James, J. R. Szalay, E. Bernardoni, and S. A. Stern, Constraining the Solar System's Debris Disk with In Situ *New Horizons* Measurements from the Edgeworth-Kuiper Belt, *Astrophys. J. Lett.*, **881**, *L12*, 2019

[76](29) **A. R. Poppe**, Comment on "The Dominant Role of Energetic Ions in Solar Wind Interaction with the Moon" by Omidi et al., *J. Geophys. Res.: Space Physics*, **124**, 2019

[75] I. Garrick-Bethell, **A. R. Poppe**, and S. Fatemi, The lunar paleo-magnetosphere: implications for the accumulation of polar volatile deposits, *Geophys. Res. Lett.*, **46**, 2019

[74] S. Xu, **A. R. Poppe**, J. S. Halekas, D. L. Mitchell, J. P. McFadden, and Y. Harada, Mapping the lunar wake potential structure with ARTEMIS data, *J. Geophys. Res.: Space Physics*, **124**, 2019

[73] D. Koschny, R. H. Soja, C. Engrand, G. J. Flynn, J. Lasue, A.-C. Levasseur-Regourd, D. Malaspina, T. Nakamura, **A. R. Poppe**, V. J. Sterken, and J. M. Trigo-Rodriguez, Interplanetary Dust, Meteoroids, Meteors, and Meteorites, in *Cosmic Dust from the Laboratory to the Stars*, ed. R. Rodrigo, *Space Sci. Rev.*, **215**, 2019

[72] H. Fuqua-Haviland, **A. R. Poppe**, S. Fatemi, G.T. Delory, I. de Pater, Time-dependent hybrid plasma simulations of lunar electromagnetic induction in the solar wind, *Geophys. Res. Lett.*, **46**, 2019

[71] J. R. Szalay, P. Pokorný, Z. Sternovsky, Z. Kupihar, **A. R. Poppe**, and M. Horányi, Impact Ejecta and Gardening in the Lunar Polar Regions, *J. Geophys. Res.: Planets*, **124**, 2019

[70] M. Piquette, **A. R. Poppe**, E. Bernardoni, J. R. Szalay, D. James, M. Horányi, S. A. Stern, H. Weaver, J. Spencer, and C. Olkin, Student Dust Counter: Status report at 38 AU, *Icarus*, **321**, 116-125, 2019

– 2018 –

[69] Zemcov, M., Arcavi, I., Arendt, R., Bachelet, E., Chary, R.R., Cooray, A., Dragomir, D., Henry, R., Lisse, C., Matsuura, S., Murthy, J., Nguyen, C., **Poppe, A.**, Street, R., Werner, M., Astrophysics with *New Horizons*: Making the Most of a Generational Opportunity, *Pub. Astron. Soc. Pac.*, **130**, 2018

[68](28) **A. R. Poppe** and M. Horányi, Interplanetary dust delivery of water to the atmospheres of Pluto and Triton, *Astron. Astrophys.*, **617**, L5, 2018

[67] J. S. Halekas, **A. R. Poppe**, Y. Harada, J. W. Bonnell, R. E. Ergun, and J. P. McFadden, A Tenuous Lunar Ionosphere in the Geomagnetic Tail, *Geophys. Res. Lett.*, **45**, 2018

[66] W. M. Farrell, J. S. Halekas, S. Fatemi, **A. R. Poppe**, C. Hartzell, J. R. Marshall, T. J. Stubbs,

M. I. Zimmerman, and Y. Zheng, Anticipated Electrical Environment at Phobos: Nominal and Solar Storm Conditions, *Adv. Space Res.*, **62**, 2199-2212, 2018

[65] J. R. Szalay, **A. R. Poppe**, J. Agarwal, D. Britt, I. Belskaya, M. Horányi, T. Nakamura, M. Sachse, F. Spahn, Dust Phenomena Relating to Airless Bodies, in *Cosmic Dust from the Laboratory to the Stars*, ed. R. Rodrigo, *Space Sci. Rev.*, **214**, 2018

[64] M. C. Lue, J. S. Halekas, **A. R. Poppe**, and J. P. McFadden, ARTEMIS observations of solar wind proton scattering off the lunar surface, *J. Geophys. Res.: Space Physics*, **123**, 2018

[63](27) **A. R. Poppe**, S. Fatemi, and K. K. Khurana, Thermal and energetic ion dynamics in Ganymede's magnetosphere, *J. Geophys. Res.: Space Physics*, **123**, 2018

[62](26) **A. R. Poppe**, W. M. Farrell, and J. S. Halekas, Formation timescales of amorphous rims on lunar grains derived from ARTEMIS observations, *J. Geophys. Res.: Planets*, **123**, 2018

[61] R. J. Lillis, J. S. Halekas, M. O. Fillingim, **A. R. Poppe**, G. Collinson, D. A. Brain, and D. L. Mitchell, Field-aligned electrostatic potentials above the Martian exobase from MGS electron reflectometry: structure and variability, *J. Geophys. Res.: Planets*, **123**, 2018

[60] S. Fatemi and **A. R. Poppe**, Solar wind plasma interaction with asteroid 16 Psyche: implication for formation theories, *Geophys. Res. Lett.*, **45**, 2018

[59] J. M. C. Plane, G. Flynn, A. Mättäänen, J. E. Moores, **A. R. Poppe**, J. D. Carrillo-Sanchez, and C. Listowski, Impacts of Cosmic Dust on Planetary Atmospheres and Surfaces, in *Cosmic Dust from the Laboratory to the Stars*, ed. R. Rodrigo, *Space Sci. Rev.*, **214**, 2018

– 2017 –

[58] J. I. Moses and **A. R. Poppe**, Dust Ablation on the Giant Planets: Consequences for Stratospheric Photochemistry, *Icarus*, **297**, 33-58, 2017

[57] J. S. Halekas, **A. R. Poppe**, M. C. Lue, W. M. Farrell, and J. P. McFadden, Distribution and Solar Wind Control of Compressional Solar Wind-Magnetic Anomaly Interactions Observed at the Moon by ARTEMIS, *J. Geophys. Res.: Space Physics*, **122**, 2017

[56] Y. Harada, **A. R. Poppe**, J. S. Halekas, P. C. Chamberlin, and J. P. McFadden, Photoemission and electrostatic potentials on the dayside lunar surface in the terrestrial magnetotail lobes, *Geophys. Res. Lett.*, **44**, 2017

[55] S. Fatemi, **A. R. Poppe**, G.T. Delory, W.M. Farrell, AMITIS: A 3D GPU-Based Hybrid-PIC Model for Space and Plasma Physics, ASTRONUM 2016, *J. Phys., IOP Conference Series*, **837**, 012017, 2017

[54](25) **A. R. Poppe**, J. S. Halekas, M. C. Lue, and S. Fatemi, ARTEMIS observations of the solar wind proton scattering function from lunar crustal magnetic anomalies, *J. Geophys. Res.: Planets*, **122**, 2017

[53] M. Zemcov, P. Immel, C. Nguyen, A. Cooray, C. M. Lisse, and **A. R. Poppe**, Measurement of the Cosmic Optical Background using the Long Range Reconnaissance Imager on *New Horizons*, *Nature Comm.*, **8**, 2017

[52] J. J. Walker, J. S. Halekas, M. Horányi, J. R. Szalay, and **A. R. Poppe**, Evidence for Detection of Energetic Neutral Atoms by LADEE, *Plan. Space Sci.*, **139**, 31-36, 2017

– **2016** –

[51] M. R. Collier, A. Newheart, **A. R. Poppe**, H. K. Hills, and W. M. Farrell, Stairstep Particle Flux Spectra on the Lunar Surface: Evidence for Nonmonotonic Potentials?, *Geophys. Res. Lett.*, **43**, 2016

[50] J. Coplin, A. Yang, **A. R. Poppe**, M. Burtscher, Increasing Telemetry Throughput Using Customized and Adaptive Data Compression, in AIAA SPACE 2016, SPACE Conferences and Exposition, (AIAA 2016-5401), 2016

[49](24) **A. R. Poppe**, M. O. Fillingim, J. S. Halekas, J. Raeder, and V. Angelopoulos, ARTEMIS observations of terrestrial ionospheric molecular ion outflow at the Moon, *Geophys. Res. Lett.*, **43**, 2016

[48] V. L. Frankland, A. D. James, J. D. Carrilo-Sánchez, T. P. Mangan, K. Willacy, **A. R. Poppe**, and J. M. C. Plane, Uptake of acetylene on cosmic dust and production of benzene in Titan's atmosphere, *Icarus*, **278**, 88-99, 2016

[47] J. S. Halekas, **A. R. Poppe**, W. M. Farrell, and J. P. McFadden, Structure and Composition of the Distant Lunar Exosphere: Constraints from ARTEMIS Observations of Ion Acceleration in Time-Varying Fields, *J. Geophys. Res.: Planets*, **121**, 2016

[46] S. Fatemi, **A. R. Poppe**, K. K. Khurana, M. Holmström, and G. T. Delory, On the formation of Ganymede's surface brightness asymmetries: kinetic simulations of Ganymede's magnetosphere, *Geophys. Res. Lett.*, **43**, 2016

[45](23) **A. R. Poppe**, S. M. Curry, and S. Fatemi, The Phobos neutral and ionized torus, *J. Geophys. Res.: Planets*, **121**, 2016

[44](22) **A. R. Poppe**, J. S. Halekas, J. R. Szalay, M. Horányi, Z. Levin, and S. Kempf, LADEE/LDEX observations of lunar pick-up ion distribution and variability, *Geophys. Res. Lett.*, **43**, 2016

[43] F. Bagenal, M. Horányi, D. J. McComas, R. L. McNutt, Jr., H. A. Elliott, M. E. Hill, L. E. Brown, P. A. Delamere, P. Kollman, S. M. Krimigis, M. Kusterer, C. M. Lisse, D. G. Mitchell, M. Piquette, **A. R. Poppe**, D. F. Strobel, J. R. Szalay, P. Valek, J. Vandegriff, S. Weidner, E. J. Zirnstein, S. A. Stern, K. Ennico, C. B. Olkin, H. A. Weaver, and L. A. Young, Pluto's Interaction: Solar Wind, Energetic Particles, Dust, *Science*, **351**, 2016

[42](20) **A. R. Poppe**, S. Fatemi, D. Hemingway, I. Garrick-Bethell, and M. Holmström, Solar wind interaction with the Reiner Gamma crustal magnetic anomaly: Connecting source magnetization with surface weathering, *Icarus*, **266**, 261-266, 2016

[41](19) **A. R. Poppe**, An improved model for interplanetary dust fluxes in the outer solar system, *Icarus*, **264**, 369-386, 2016

– **2015** –

[40] M. I. Zimmerman, W. M. Farrell, and **A. R. Poppe**, Kinetic simulations of kilometer-scale mini-magnetosphere formation on the Moon, *J. Geophys. Res.: Planets*, **120**, 2015

[39](18) **A. R. Poppe**, M. I. Zimmerman, J. S. Halekas, and W. M. Farrell, The electrostatic plasma environment of a small airless body under non-aligned plasma flow and UV conditions, *Planet. Space Sci.*, **119**, 2015

[38] S. Fatemi, H. Fuqua, **A. R. Poppe**, G. T. Delory, J. S. Halekas, W. M. Farrell, and M.

Holmström, On the Confinement of Lunar Induced Magnetic Fields, *Geophys. Res. Lett.*, **42**, 2015

[37] Y. Harada, J. S. Halekas, **A. R. Poppe**, Y. Tsugawa, S. Kurita, and J. P. McFadden, Statistical characterization of the foremoon particle and wave morphology: ARTEMIS observations, *J. Geophys. Res.: Space Physics*, **120**, 2015

[36] S. Fatemi, C. Lue, M. Holmström, **A. R. Poppe**, M. Wieser, S. Barabash, and G. T. Delory, Solar wind plasma interaction with Gerasimovich lunar magnetic anomaly, *J. Geophys. Res.: Space Physics*, **120**, 2015

[35] J. S. Halekas, M. Benna, P. R. Mahaffy, R. C. Elphic, **A. R. Poppe**, and G. T. Delory, Detections of Lunar Exospheric Ions by the LADEE Neutral Mass Spectrometer, *Geophys. Res. Lett.*, **42**, 2015

[34](17) **A. R. Poppe**, Interplanetary dust influx to the Pluto-Charon system, *Icarus*, **246**, 352-359, 2015

– 2014 –

[33] Y. Harada, J. S. Halekas, **A. R. Poppe**, S. Kurita, and J. P. McFadden, Extended lunar precursor regions: Electrons-wave interaction, *J. Geophys. Res.: Space Physics*, **119**, 2014

[32] J. S. Halekas, **A. R. Poppe**, J. P. McFadden, V. Angelopoulos, K.-H. Glassmeier, and D. A. Brain, Evidence for Small-Scale Collisionless Shocks at the Moon from ARTEMIS, *Geophys. Res. Lett.*, **41**, 2014

[31](16) **A. R. Poppe** and S. M. Curry, Martian planetary heavy ion sputtering of Phobos, *Geophys. Res. Lett.*, **41**, 2014

[30](15) **A. R. Poppe**, M. Sarantos, J. S. Halekas, G. T. Delory, Y. Saito, and M. Nishino, Anisotropic solar wind sputtering of the lunar surface induced by crustal magnetic anomalies, *Geophys. Res. Lett.*, **41**(14), 2014

[29] J. S. Halekas, **A. R. Poppe**, and J. P. McFadden, The Effects of Solar Wind Velocity Distributions on the Refilling of the Lunar Wake: ARTEMIS Observations and Comparisons to One-dimensional Theory, *J. Geophys. Res.: Space Physics*, **119**, 2014

[28](14) **A. R. Poppe**, S. Fatemi, J. S. Halekas, M. Holmström, and G. T. Delory, ARTEMIS observations of extreme diamagnetic fields in the lunar wake, *Geophys. Res. Lett.*, **41**(11), 2014

[27] M. I. Zimmerman, W. M. Farrell, and **A. R. Poppe**, Grid-free plasma simulations of the complex interaction between the solar wind and small, near-Earth asteroids, *Icarus*, **238**, 77-85, 2014

[26] X.-Z. Zhou, V. Angelopoulos, **A. R. Poppe**, J. S. Halekas, K. K. Khurana, M. G. Kivelson, S. Fatemi, and M. Holmström, Lunar dayside current in the terrestrial lobe: ARTEMIS observations, *J. Geophys. Res.: Space Physics*, **119**, 2014

– 2013 –

[25](13) **A. R. Poppe**, J. S. Halekas, M. Sarantos, and G. T. Delory, The self-sputtered contribution to the lunar exosphere, *J. Geophys. Res.: Planets*, **118**(9), 2013

[24] J. S. Halekas, **A. R. Poppe**, J. P. McFadden, K.-H. Glassmeier, The Effects of Reflected Protons

on the Plasma Environment of the Moon for Parallel Interplanetary Magnetic Fields, *Geophys. Res. Lett.*, **40**, 2013

[23] X.-Z. Zhou, V. Angelopoulos, **A. R. Poppe**, and J. S. Halekas, ARTEMIS observations of lunar pick-up ions: mass constraints on ion species, *J. Geophys. Res.: Planets*, **118**, 1-9, 2013

[22] Y. Harada, S. Machida, J. S. Halekas, **A. R. Poppe**, and J. P. McFadden, ARTEMIS observation of lunar dayside plasma in the terrestrial magnetotail, *J. Geophys. Res.: Space Physics*, **118**, 1-13, 2013

[21](12) **A. R. Poppe**, J. S. Halekas, R. Samad, M. Sarantos, and G. T. Delory, Model-based constraints on the lunar exosphere derived from ARTEMIS pick-up ion observations in the terrestrial magnetotail, *J. Geophys. Res.: Planets*, **118**(5), 2013

[20] W. M. Farrell, **A. R. Poppe**, M. I. Zimmerman, J. S. Halekas, G. T. Delory, R. M. Killen, The Lunar Photoelectron Sheath: A Change in Trapping Efficiency during a Solar Storm, *J. Geophys. Res.: Planets*, **118**, 1-9, 2013

[19] J. S. Halekas, **A. R. Poppe**, G. T. Delory, M. Sarantos, J. P. McFadden, Utilizing ARTEMIS pickup ion observations to place constraints on the lunar atmosphere, *J. Geophys. Res.: Planets*, **118**, 1-8, 2013

– 2012 –

[18](11) **A. R. Poppe**, J. S. Halekas, G. T. Delory and W. M. Farrell, Particle-in-cell simulations of the solar wind interaction with lunar crustal magnetic anomalies: Magnetic cusp regions, *J. Geophys. Res.*, **117**, A09105, 2012

[17](10) **A. R. Poppe**, R. Samad, J. S. Halekas, M. Sarantos, G. T. Delory, W. M. Farrell, V. Angelopoulos, and J. P. McFadden, ARTEMIS observations of lunar pick-up ions in the terrestrial magnetotail lobes, *Geophys. Res. Lett.*, **39**, L17104, 2012

[16](9) **A. R. Poppe**, M. Piquette, A. Likhanskii and M. Horányi, The Effects of Surface Topography on the Lunar Photoelectron Sheath and Electrostatic Dust Transport, *Icarus*, **221**, 135-146, 2012

[15](8) **A. R. Poppe** and M. Horányi, On the Edgeworth-Kuiper Belt Dust Flux to Saturn, *Geophys. Res. Lett.*, **39**, L15104, 2012

[14] J. S. Halekas, **A. R. Poppe**, G. T. Delory, M. Sarantos, W. Farrell, V. Angelopoulos and J. P. McFadden, Lunar Pickup Ions Observed by ARTEMIS: Spatial and Temporal Distribution and Constraints on Species and Source Locations, *J. Geophys. Res.*, **117**, E06006, 2012

[13] J. S. Halekas, **A. R. Poppe**, W. M. Farrell, G. T. Delory, V. Angelopoulos, J. P. McFadden, J. W. Bonnell, K. H. Glassmeier, F. Plaschke, A. Roux and R. E. Ergun, Lunar Precursor Effects in the Solar Wind and Terrestrial Magnetosphere, *J. Geophys. Res.*, **117**, A05101, 2012

[12] A. Dove, M. Horányi, X. Wang, M. Piquette, **A. R. Poppe** and S. Robertson, Experimental study of a photoelectron sheath, *Phys. Plasma*, **19**, 043502, 2012

[11] J. S. Halekas, **A. Poppe**, G. T. Delory, W. M. Farrell, M. Horányi, Solar Wind Electron Interaction with the Dayside Lunar Surface and Crustal Magnetic Fields: Evidence for Precursor Effects, *Earth Plan. Space*, **64**, 73-82, 2012

[10](7) **A. R. Poppe**, J. S. Halekas, G. T. Delory, W. M. Farrell, V. Angelopoulos, J. P. McFadden, J.

W. Bonnell and R. E. Ergun, A comparison of ARTEMIS observations and particle-in-cell modeling of the lunar photoelectron sheath in the terrestrial magnetotail, *Geophys. Res. Lett.*, **39**, L01102, 2012

– 2011 –

[9] D. Han, **A. R. Poppe**, M. Piquette, E. Grün and M. Horányi, Constraints on dust production in the Kuiper Belt from Pioneer 10 and New Horizons measurements, *Geophys. Res. Lett.*, **38**, L24102, 2011

[8](6) **A. Poppe** and M. Horányi, The Effect of Nix and Hydra on the Putative Pluto-Charon Dust Cloud, *Planet. Space Sci.*, **59**, 1647-1653, 2011

[7](5) **A. Poppe**, D. James and M. Horányi, Measurements of the Terrestrial Dust Influx by the Cosmic Dust Experiment, *Planet. Space Sci.*, **59**, 319-326, 2011

[6](4) **A. Poppe**, J. S. Halekas and M. Horányi, Negative potentials above the day-side lunar surface in the terrestrial plasma sheet: evidence of non-monotonic potentials, *Geophys. Res. Lett.*, **38**, L02103, 2011

– 2010 –

[5](3) **A. Poppe**, B. Jacobsmeyer, D. James, M. Horányi, Simulation of Polyvinylidene Fluoride Detector Response to Hypervelocity Particle Impact, *Nuc. Inst. Meth. A*, **622**, 2010

[4](2) **A. Poppe** and M. Horányi, Simulations of the Lunar Photoelectron Sheath and Dust Levitation on the Lunar Surface, *J. Geophys. Res.*, **115**, A08106, 2010

[3](1) **A. Poppe**, D. James, B. Jacobsmeyer, M. Horányi, First Results from the Venetia Burney Student Dust Counter on the New Horizons Mission, *Geophys. Res. Lett.*, **37**, L11101, 2010

– 2009 –

[2] Colwell J. E., S. R. Robertson, M. Horányi, **A. Poppe**, P. Wheeler, Lunar Dust Levitation, *J. Aero. Eng.*, NASA Exploration 2006 Granular Materials Workshop: Science and Engineering of the Lunar Soil, **22**, 2009

– 2008 –

[1] M. Horányi, V. Hoxie, D. James, **A. Poppe**, C. Bryant, B. Grogan, B. Lamprecht, J. Mack, F. Bagenal, S. Batiste, N. Bunch, T. Chantanowich, F. Christensen, M. Colgan, T. Dunn, G. Drake, A. Fernandez, T. Finley, G. Holland, A. Jenkins, C. Krauss, E. Krauss, O. Krauss, M. Lankton, C. Mitchell, M. Neeland, T. Resse, K. Rash, G. Tate, C. Vaudrin, J. Westfall, The Student Dust Counter on the New Horizons Mission, *Space Sci. Rev.*, 2008

Papers in Review

S. M. Carberry Mogan, **A. R. Poppe**, and L. Liuzzo, The influence of non-thermal collisions in Europa's atmosphere, *Geophys. Res. Lett.*, *in review*

N. Altobelli, F. Postberg, S. Kempf, **A. R. Poppe**, J. Schmidt, C. Fischer, G. Moragas-Klostermeyer, and R. Srama, Exogenic dust inventory in the saturnian system: the Cassini's Cosmic Dust Analyzer view, *Mon. Not. R. Astron. Soc.*, *in review*

M. Lin and **A. R. Poppe**, Solar Energetic Particle Track Accumulation in Edgeworth-Kuiper Belt Dust Grains, *Plan Sci. J.*, *in review*

Seminars / Colloquiua

– 2023 –

Solar-Energetic-Particle Age Dating of Interplanetary Dust, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (September, 2023)

– 2022 –

A comprehensive model for pickup ion formation at the Moon, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (September, 2022)

ARTEMIS at 10 Years! Past Science Highlights and Future Goals, UCLA Space Physics Seminar, (January, 2022)

– 2021 –

Interplanetary Dust: Taking the 'Big Picture' with Interstellar Probe, Interstellar Probe Science Webinar, (April, 2021)

ARTEMIS mapping of lunar crustal magnetic reflection of solar wind protons, Taiwan Space Union, (March, 2021)

– 2020 –

The effects of solar wind structures on nanodust dynamics in the inner heliosphere, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (March, 2020)

– 2019 –

ARTEMIS observations of electromagnetically induced fields from the lunar interior, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (October, 2019)

Interplanetary dust: The view from near and far, School of Physics and Astronomy, Rochester Institute of Technology, (August 2019)

Magnetospheres in unexpected places: the Moon and asteroid (16) Psyche, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (April, 2019)

– 2018 –

Interplanetary dust: The view from near and far, Dept. of Earth and Planetary Sciences, U.C. Santa Cruz, (April 2018)

Interplanetary dust: The view from near and far, Center for Integrated Planetary Science, U.C. Berkeley, (February 2018)

– 2017 –

Energetic ion dynamics in Ganymede's magnetosphere, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (November, 2017)

ARTEMIS mapping of lunar crustal magnetic reflection of solar wind protons, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (March, 2017)

– 2016 –

Crustal magnetic field topology and space weathering at lunar swirls, **A. R. Poppe** and D. Hemingway (joint seminar), Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (April, 2016)

– 2014 –

Plasma-Neutral Interactions in the Lunar Exosphere, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (March, 2014)

– 2013 –

ARTEMIS Pick-up Ion Observations in the Terrestrial Magnetotail: Implications for the Lunar Neutral Exosphere, Laboratory for Atmospheric and Space Physics, University of Colorado at Boulder, Boulder, CO, (April, 2013)

ARTEMIS Pick-up Ion Observations of the Lunar Neutral Exosphere, Lunar and Planetary Institute Seminar, LPI, Houston, TX, (February, 2013)

– 2012 –

Recent advances in modeling the Edgeworth-Kuiper Belt dust flux to Saturn, Astrobiology and Space Science Seminar, NASA Ames Research Center, (May, 2012)

Particle-in-cell simulations of solar wind interaction with lunar crustal magnetic anomalies, Dept. of Earth and Space Sciences & Institute for Geophysics and Planetary Physics, University of California at Los Angeles, (April, 2012)

– 2011 –

ARTEMIS Observations of the Dayside Lunar Plasma Environment, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (November, 2011)

Various investigations of dust dynamics in the outer solar system: Implications for New Horizons, Southwest Research Institute, Boulder, CO, (October, 2011)

– 2010 –

Plasma Physics of Lunar Surface, NLSI Director's Seminar, Laboratory for Atmospheric and Space Physics, University of Colorado at Boulder, (April, 2010)

Simulations of the Lunar Photoelectron Sheath and Associated Dust Dynamics, Center for Integrated Plasma Studies, University of Colorado at Boulder, (April, 2010)

Simulations of the Lunar Photoelectron Sheath and Associated Dust Dynamics, Space Physics Research Group, Space Sciences Laboratory, University of California at Berkeley, (March, 2010)

Conference Presentations

– 2020 –

Imaging of Ganymede through Energetic Neutral Atoms sputtered/backscattered from the surface, A. Pontoni et al. (including **A. R. Poppe**), EGU General Assembly, Vienna, AT (4/20)

A Double-Disturbed Lunar Plasma Wake, A. Rasca, W. M. Farrell, and **A. R. Poppe**, EGU General Assembly, Vienna, AT (4/20)

Simulating the Reiner Gamma Swirl and Magnetic Anomaly: The Impact of the Solar Wind Alpha Population, J. Deca et al. (including **A. R. Poppe**), EGU General Assembly, Vienna, AT (4/20)

Ion weathering of the surface of the Martian moon Phobos as inferred from MAVEN ion observations, Q. Nénon and **A. R. Poppe**, EGU General Assembly, Vienna, AT (4/20)

Solar Wind Proton Precipitation to the Surface of Mercury, S. Fatemi, **A. R. Poppe**, and S. Barabash, EGU General Assembly, Vienna, AT (4/20)

Coronographic observations of the lunar sodium exosphere, R. M. Killen, T. H. Morgan, A. E. Potter, G. Bacon, I. Ajang, and **A. R. Poppe**, LPSC, The Woodlands, TX (3/20)

– **2019** –

ARTEMIS observations of electromagnetically induced fields from the lunar interior, **A. R. Poppe**, S. Fatemi, J. S. Halekas, R. E. Grimm, H. Haviland, and G. T. Delory, Fall AGU Meeting, San Francisco, CA (12/19)

Simulation the Reiner Gamma Swirl and Magnetic Anomaly: The Longterm Effect of Solar Wind Standoff, J. Deca, D. J. Hemingway, A. Divin, C. Lue, **A. R. Poppe**, I. Garrick-Bethell, B. Lembege, and M. Horányi, Fall AGU Meeting, San Francisco, CA (12/19)

Phobos Surface Sputtering as Inferred from MAVEN Ion Observations, Q. Nénon, **A. R. Poppe**, A. Rahmati, C. O. Lee, J. P. McFadden, and C. M. Fowler, Fall AGU Meeting, San Francisco, CA (12/19)

Modeling the lunar wake during extreme plasma conditions, A. Rasca, S. Fatemi, **A. R. Poppe**, and W. M. Farrell, Fall AGU Meeting, San Francisco, CA (12/19)

Localized Hybrid Simulation of Martian Crustal Magnetic Cusp Regions, Y. Dong, D. A. Brain, **A. R. Poppe**, H. L. Egan, and X. Fang, Fall AGU Meeting, San Francisco, CA (12/19)

Time-Dependent Hybrid Plasma Simulations of Lunar Electromagnetic Induction in the Solar Wind, H. Fuqua Haviland, **A. R. Poppe**, S. Fatemi, G. T. Delory, and I. de Pater, Fall AGU Meeting, San Francisco, CA (12/19)

The presence of hematite at high latitudes of the Moon, S. Li, P. G. Lucey, A. Fraeman, **A. R. Poppe**, V. Z. Sun, D. Hurley, and P. H. Schultz, Fall AGU Meeting, San Francisco, CA (12/19)

Predicting Debris Disk Observations for Interstellar Probe, **A.R. Poppe**, C. M. Lisse, J. R. Szalay, M. Zemcov, M. Horányi, and C. Beichman, Second Interstellar Probe Science Workshop, Manhattan, NYC, NY (10/19)

The Lunar Surface Electromagnetics Experiment (LuSEE), S.D. Bale, J. Bonnell, J. Burns, K. Goetz, J.S. Halekas, D. Malaspina, M. Pulupa, **A.R. Poppe**, R. MacDowell, and A. Zaslavsky, NASA Exploration Research Science Forum, Mountain View, CA (7/19)

The Phobos ion environment and surface sputtering as inferred from MAVEN measurements, Q. Nénon, **A.R. Poppe**, A. Rahmati, C.O. Lee, J. McFadden, and C.M. Fowler, NASA Exploration Research Science Forum, Mountain View, CA (7/19)

Just how strong should lunar induced fields be?, **A.R. Poppe**, R.E. Grimm, H. Fuqua Haviland, and S. Fatemi, NASA Exploration Research Science Forum, Mountain View, CA (7/19)

Modeling the Solar System's debris disk: The view from inside and out, **A.R. Poppe**, C.M. Lisse, M. Zemcov, M. Piquette, C. Beichman, J.R. Szalay, M. Horanyi, New Horizons in Planetary Systems, Victoria, British Columbia, Canada (5/19)

Interplanetary dust delivery of water to the atmospheres of Pluto and Triton, **A.R. Poppe** LPSC, The Woodlands, TX (3/19)

– **2018** –

Mapping the Lunar Wake Potential Structure with ARTEMIS data, S. Xu, **A. R. Poppe**, J. Halekas, J. McFadden, Y. Harada, and D. Mitchell, AGU Fall Meeting, Washington, D.C. (12/18)

Plasma Interaction with Lunar Crustal Magnetization: Implications for Surface Weathering, S. Fatemi and **A. R. Poppe**, AGU Fall Meeting, Washington, D.C. (12/18)

Particle-in-cell simulations of Martian crustal magnetic cusp regions, **A. R. Poppe** and D.A. Brain, AGU Fall Meeting, Washington, D.C. (12/18)

Observations of the Solar System Debris Disk with Interstellar Probe, **A. R. Poppe** and C.M. Lisse, Interstellar Probe Exploration Workshop, New York City, NY (9/18)

Meteoroid Bombardment and Impact Gardening in the Lunar Polar Regions, J.R. Szalay, P. Pokorny, Z. Sternovsky, Z. Kupihar, **A.R. Poppe**, M. Horanyi, COSPAR 42, Pasadena, CA (7/18)

Interplanetary dust: the view from near and far, **A. R. Poppe**, M. Horányi, J.R. Szalay, C.M. Lisse, R. McNutt, P. Brandt, COSPAR 42, Pasadena, CA (7/18)

Thermal and energetic ion dynamics in Ganymede's magnetosphere, **A. R. Poppe**, S. Fatemi, K.K. Khurana, Magnetospheres of the Outer Planets (MOP), Boulder, CO (6/18)

A comprehensive model for pickup ion formation at the Moon, **A. R. Poppe** and J.S. Halekas, NASA Exploration Research Science Forum, Mountain View, CA (6/18)

Anisotropic Meteoroid Fluxes and Impact Gardening in the Lunar Polar Regions, J.R. Szalay, P. Pokorny, M. Horanyi, **A. R. Poppe**, NASA Exploration Research Science Forum, Mountain View, CA (6/18)

Recent advances in understanding the lunar plasma environment, **A.R. Poppe**, AOGS Meeting, Honolulu, HI (6/18), *invited*

The lunar paleomagnetosphere, **A.R. Poppe**, I. Garrick-Bethell, S. Fatemi, AOGS Meeting, Honolulu, HI (6/18)

Thermal and energetic ion dynamics in Ganymede's magnetosphere, **A.R. Poppe**, S. Fatemi, K.K. Khurana, European Geophysical Union Annual Meeting, Vienna, Austria (4/18)

Improved methods for time domain electromagnetic sounding of the Moon, H. Fuqua-Haviland, **A.R. Poppe**, S. Fatemi, G.T. Delory, LPSC, The Woodlands, TX (3/18)

Formation timescales of amorphous rims on lunar grains derived from ARTEMIS observations, **A.R. Poppe**, W.M. Farrell, J.S. Halekas, LPSC, The Woodlands, TX (3/18)

Solar Wind Plasma Interaction with 16 Psyche, **A.R. Poppe** and S. Fatemi, LPSC, The Woodlands, TX (3/18)

Interstellar Explorer Observations of the Solar System's Debris Disks, C.M. Lisse, R.L. McNutt, P.C. Brandt, **A.R. Poppe**, M. Horanyi, LPSC, The Woodlands, TX (3/18)

The lunar paleomagnetosphere: Insights into field enhancements, isotopic fractionation of the ancient solar wind, and volatile production, I. Garrick-Bethell, **A.R. Poppe**, S. Fatemi, LPSC, The Woodlands, TX (3/18)

i^2DUNE: A mission to explore the chemical diversity of our solar system, M. Horanyi, E. Grun,

A. Juhasz, S. Kempf, M. Piquette, P. Pokorny, **A.R. Poppe**, J. Castillo-Rogez, R. Srama, Z. Sternovsky, J.R. Szalay, T. Balint, LPSC, The Woodlands, TX (3/18)

Monitoring the Outflow of Matter from the Earth and the Moon, J.S. Halekas and **A.R. Poppe**, NASA Deep Space Gateway Concept Science Workshop, Denver, CO (2/2018)

The solar wind interaction with the Moon, S. Fatemi, M. Holmstrom, **A.R. Poppe**, G.T. Delory, J.S. Halekas, S. Barabash, 52^{nd} ESLAB Symposium, Noordwijk, Holland (2/2018)

– 2017 –

Terrestrial molecular ion outflow observed at the Moon, M.O. Fillingim, **A.R. Poppe**, J.S. Halekas, J. Raeder, V. Angelopoulos, and I. Dandouras, AGU Fall Meeting, San Francisco, CA (12/17)

Amorphous rim formation rates at the Moon as determined from ARTEMIS observations, **A.R. Poppe**, W.M. Farrell, and J.S. Halekas, AGU Fall Meeting, San Francisco, CA (12/17)

ARTEMIS observations of solar wind protons scattering from lunar crustal magnetic anomalies, **A.R. Poppe**, J.S. Halekas, C. Lue, S. Fatemi, SSERVI Exploration Science Forum, NASA Ames Research Center (7/17)

Amorphous rim formation rates at the Moon as determined from ARTEMIS observations, **A.R. Poppe**, W.M. Farrell, and J.S. Halekas, Lunar Exploration and Analysis Group Meeting, Columbia, MD (8/17)

Kinetic simulations of Ganymede's magnetosphere and the formation of Ganymede's surface brightness asymmetries, S. Fatemi, **A.R. Poppe**, K.K. Khurana, and M. Holmstrom, Magnetospheres of the Outer Planets Conference, Uppsala, Sweden (6/17)

The electrostatic plasma environment of Hyperion, **A.R. Poppe**, T.A. Nordheim, M.I. Zimmerman, and S. Fatemi, Magnetospheres of the Outer Planets Conference, Uppsala, Sweden (6/17)

First simultaneous detection of terrestrial ionospheric molecular ions in the Earth's inner magnetosphere and at the Moon, I. Dandouras, **A.R. Poppe**, M. O. Fillingim, L. M. Kistler, C. G. Mouikis, H. Reme, European Geophysical Union Meeting, Vienna, Austria (4/17)

Field-aligned electrostatic potential differences in near-Mars space, R.J. Lillis, G. Collinson, M. Fillingim, **A.R. Poppe**, and D. Mitchell, European Geophysical Union Meeting, Vienna, Austria (4/17)

A plasma-induction model to study the electromagnetic response of the Moon's interior to a magnetic transient, S. Fatemi, **A.R. Poppe**, H. Fuqua, and G.T. Delory, LPSC, The Woodlands, TX (3/17)

Multi-model approach for ARTEMIS time domain electromagnetic sounding analysis of the Moon, H. Fuqua-Haviland, S. Fatemi **A.R. Poppe**, G.T. Delory, I. de Pater, R.E. Grimm, LPSC, The Woodlands, TX (3/17)

ARTEMIS mapping of lunar crustal magnetic reflection of solar wind protons, **A.R. Poppe**, S. Fatemi, C. Lue, J.S. Halekas, Dust, Plasma, and Atmospheres of the Moon and Small Bodies, Boulder, CO (1/17)

– 2016 –

The effect of a CME passage at Phobos: Expected changes in surface potential, W.M. Farrell, S. Fatemi, J.S. Halekas, C.M. Hartzell, J.R. Marshall, **A.R. Poppe**, T.J. Stubbs, Y. Zheng, and M.I. Zimmerman, AGU Fall Meeting, San Francisco, CA (12/16)

A GPU-based plasma-induction model to study the electromagnetic response of an object's interior, S. Fatemi, G.T. Delory, **A.R. Poppe**, and H. Fuqua, AGU Fall Meeting, San Francisco, CA (12/16)

Initial Results from Lunar Electromagnetic Sounding with ARTEMIS, H.A. Fuqua, S. Fatemi, **A.R. Poppe**, G.T. Delory, R.E. Grimm, and I. de Pater, AGU Fall Meeting, San Francisco, CA (12/16)

ARTEMIS observations of terrestrial ionospheric molecular ions at the Moon: implications for lunar exospheric and volatile inventories, **A.R. Poppe**, M.O. Fillingim, J.S. Halekas, J. Raeder, and V. Angelopoulos, AGU Fall Meeting, San Francisco, CA (12/16)

The Phobos neutral and ionized torus: Implications for Spacecraft Observations, **A.R. Poppe**, S.M. Curry, and S. Fatemi, 3rd International Conference on the Exploration of Phobos and Deimos, NASA Ames Research Center, (7/16)

LADEE/LDEX observations of lunar pickup ion distribution and variability, **A.R. Poppe**, J.S. Halekas, J. Szalay, M. Horányi, Z. Levin, S. Kempf, SSERVI Exploration Science Forum, NASA Ames Research Center (7/16)

Stairstep Particle Flux Spectra on the Lunar Surface: Evidence for Nonmonotonic Potentials?, M. Collier, A. Newheart, **A.R. Poppe**, W.M. Farrell, and S. K. Hills, SSERVI Exploration Science Forum, NASA Ames Research Center (7/16)

An improved model for interplanetary dust fluxes in the outer solar system, **A.R. Poppe**, Dusty Visions 2016, Univ. of Colorado at Boulder, Boulder, CO (7/16)

Interplanetary Dust Flux to Saturn's Icy Satellites: A Potential Contaminant Source?, **A.R. Poppe**, Enceladus and the Icy Moons of Saturn, Boulder, CO (7/16)

A CUDA-based 3D Kinetic Model for Space Plasma Physics, S. Fatemi and **A.R. Poppe**, NVIDIA GPU Conference, San Jose, CA (4/16)

– 2015 –

An improved model for interplanetary dust grain fluxes to the outer planets, **A.R. Poppe**, AGU Fall Meeting, San Francisco, CA (12/15)

Distortion of Induced Magnetic Fields on the Nightside of the Moon and Implications for Electromagnetic Sounding, H.A. Fuqua, S. Fatemi, **A.R. Poppe**, G.T. Delory, R.E. Grimm, and I. de Pater, AGU Fall Meeting, San Francisco, CA (12/15)

Quantifying Source, Sinks, and Gas-surface Interactions on the Moon from LADEE Measurements of Exospheric Na and K, M. Sarantos, A. Colaprete, **A.R. Poppe**, C. Bennett, T. Orlando, AGU Fall Meeting, San Francisco, CA, (12/15)

Measurement of Energetic Neutral Atom Flux in the Lunar Exosphere using the LDEX Instrument, J. Walker, J.S. Halekas, M. Horányi, J. Szalay, **A.R. Poppe**, AGU Fall Meeting, San Francisco, CA, (12/15)

Dust Ablation in Pluto's Atmosphere, M. Horányi, **A.R. Poppe**, Z. Sternovsky, AGU Fall Meeting, San Francisco, CA, (12/15)

Jovian Plasma Interaction with Ganymede's magnetosphere, S. Fatemi, **A.R. Poppe**, K. Khurana, M. Holmström, AGU Fall Meeting, San Francisco, CA, (12/15)

ARTEMIS' Perspective on a Dynamic Moon, **A.R. Poppe**, J.S. Halekas, S. Fatemi, H. Fuqua, G.T.

Delory, Lunar Exploration and Analysis Group (LEAG) Meeting, Columbia, MD, (10/15)

Plasma modeling of the solar wind interactions with the Reiner Gamma and Airy magnetic anomalies: Implications for surface weathering and source magnetization, **A.R. Poppe**, S. Fatemi, D. Hemingway, I. Garrick-Bethell, M. Holmström, and G.T. Delory, SSERVI Exploration Science Forum, NASA Ames Research Center (7/15)

Solar wind interactions with the Gerasimovich lunar magnetic anomaly, S. Fatemi, **A.R. Poppe**, G.T. Delory, C. Lue, and M. Holmström, SSERVI Exploration Science Forum, NASA Ames Research Center (7/15)

The electrostatic plasma environment of small bodies under non-aligned plasma flow and UV illumination, **A.R. Poppe**, M.I. Zimmerman, S. Fatemi, J.S. Halekas, and W.M. Farrell, Magnetospheres of the Outer Planets (MOP), Georgia Tech University, Atlanta, GA (6/15)

The jovian plasma interaction with Ganymede, S. Fatemi, **A.R. Poppe**, and M. Holmström, Magnetospheres of the Outer Planets (MOP), Georgia Tech University, Atlanta, GA (6/15)

Modeling the Phobos and Deimos Neutral Gas Tori: Implications for detection by MAVEN, **A.R. Poppe**, S.M. Curry, S. Fatemi, J.P. McFadden, and G.T. Delory, LPSC XLVI, Houston, TX, (3/15)

– 2014 –

Surface-Plasma-Exosphere Interactions at the Moon, Phobos and Deimos, and the outer planet satellites (*Invited*), **A. R. Poppe**, J. S. Halekas, M. Sarantos, and S. M. Curry, AGU, San Francisco, CA (12/14)

LADEE/LDEX Observations of Pick-up Ion Variability in the Lunar Exosphere, **A. R. Poppe**, J. S. Halekas, J. R. Szalay, and M. Horányi, NASA Exploration Science Forum, Mountain View, CA (7/14)

Martian planetary heavy ion sputtering of Phobos and Deimos: implications for the production of neutral tori, **A. R. Poppe** and S. M. Curry, NASA Exploration Science Forum, Mountain View, CA (7/14)

Gridless particle simulations of the plasma and space-weathering environment in a lunar crustal magnetic field, M. I. Zimmerman, W. M. Farrell, **A. R. Poppe**, D. T. Blewett, D. M. Hurley, and C. P. Paranicas, NASA Exploration Science Forum, Mountain View, CA (7/14)

Anisotropic sputtering of the lunar surface induced by crustal magnetic anomalies, **A. R. Poppe**, J.S. Halekas, M. Sarantos, G.T. Delory, Y. Saito, M. Nishino, 6th Alfvén Conference, London, England, (7/14)

ARTEMIS observations of anisotropic ion sputtering of the lunar surface: Implications for LADEE, **A. R. Poppe**, J. S. Halekas, G. T. Delory, and V. Angelopoulos, LPSC XLV, Houston, TX, (3/14)

Model-data comparison of LDEX observations of low-energy lunar dayside ions, **A. R. Poppe**, J. S. Halekas, J. R. Szalay, M. Horányi, and G. T. Delory, LPSC XLV, Houston, TX, (3/14)

ARTEMIS observations and data-based modeling in support of LADEE, J. S. Halekas, **A. R. Poppe**, G. T. Delory, R. C. Elphic, V. Angelopoulos, M. Horányi, and J. Szalay, LPSC XLV, Houston, TX, (3/14)

LDEX observations and correlations with ARTEMIS measurements, J. R. Szalay, M. Horányi, **A. R. Poppe**, and J. S. Halekas, LPSC XLV, Houston, TX, (3/14)

– 2013 –

Interplanetary dust flux to the outer planet atmospheres, **A. R. Poppe** and J. I. Moses, AGU, San Francisco, CA (12/13)

Hydrocarbon and oxygen photochemistry on Uranus as revealed by *Spitzer*/IRS observations, J. Moses, G. S. Orton, L. N. Fletcher, A. K. Mainzer, D. Hines, H. B. Hammel, J. Martin-Torres, M. Burgdorf, C. Merlet, M. R. Line, and **A. R. Poppe**, AAS/DPS, Denver, CO (10/13)

Interplanetary Dust Influx to the Pluto System: Implications for Dusty Exosphere and Ring Production, **A. R. Poppe**, The Pluto System on the Eve of Exploration by New Horizons: Perspectives and Predictions, Laurel, MD, USA (7/13)

The Self-sputtered Contribution to the Lunar Exosphere, **A. R. Poppe**, J. S. Halekas, M. Sarantos, and G. T. Delory, NASA Lunar Science Virtual Forum (7/13)

Model-based Constraints on the Lunar Exosphere Derived from ARTEMIS Pick-up Ion Observations, **A. R. Poppe**, J. S. Halekas, M. Sarantos, and G. T. Delory, LPSC XLIV, Houston, TX (3/13)

Modeling Interplanetary Dust Fluxes to the Outer Planets, **A. R. Poppe**, LPSC XLIV, Houston, TX (3/13)

– 2012 –

Recent advances in understanding lunar surface charging: modeling, theory, and spacecraft observations (*Invited*), **A. R. Poppe**, J. S. Halekas, G. T. Delory, M. Horányi, V. Angelopoulos, and W. M. Farrell, AGU (12/12)

ARTEMIS observations of lunar pick-up ions in the terrestrial magnetotail, **A. R. Poppe**, R. Samad, J. S. Halekas, M. Sarantos, G. T. Delory, V. Angelopoulos, and W. M. Farrell, AGU (12/12)

On the Edgeworth-Kuiper Belt dust flux to Saturn, **A. R. Poppe** and M. Horányi, European Planetary Science Conference 2012, Madrid, Spain (9/12)

ARTEMIS observations of lunar pick-up ions in the magnetosphere tail-lobes, **A. R. Poppe**, R. Samad, J. S. Halekas, M. Sarantos, G. T. Delory, V. Angelopoulos, and W. M. Farrell, European Planetary Science Conference 2012, Madrid, Spain (9/12)

1.5-dimensional particle-in-cell simulations of the solar wind interaction with lunar crustal magnetic anomalies, **A. R. Poppe**, J. S. Halekas, G. T. Delory, W. M. Farrell, and V. Angelopoulos, NASA Lunar Science Forum, Ames Research Center, Mountain View, CA (7/11)

Direct observations of lunar pickup ions in the magnetosphere tail-lobes by ARTEMIS, R. Samad, **A. R. Poppe**, J. S. Halekas, G. T. Delory, W. M. Farrell, V. Angelopoulos and J. P. McFadden, NASA Lunar Science Forum, Ames Research Center, Mountain View, CA (7/11)

ARTEMIS observations of lunar pick-up ions in the terrestrial magnetotail lobes, **A. R. Poppe**, R. Samad, J. S. Halekas, M. Sarantos, G. T. Delory, W. M. Farrell, V. Angelopoulos, and J. P. McFadden, Dust, Atmosphere, and Plasma: Moon and Small Bodies Workshop, Boulder, CO (6/12)

Particle-in-Cell Simulations of Plasma Interaction with Lunar Crustal Magnetic Anomalies, **A. R. Poppe**, J. S. Halekas, G. T. Delory and W. M. Farrell, LPSC XLIII (3/12)

On the Edgeworth-Kuiper Belt Dust Flux to Saturn, **A. R. Poppe** and M. Horányi, LPSC XLIII (3/12)

Direct observations of lunar pickup ions in the magnetosphere tail-lobes by ARTEMIS, R. L. Samad, **A. R. Poppe**, J. S. Halekas, G. T. Delory, V. Angelopoulos and W. M. Farrell, LPSC XLIII (3/12)

The Lunar Photoelectron Sheath: A Change in Trapping Efficiency During a Solar Storm, W. M. Farrell, M. I. Zimmerman, **A. Poppe**, J. S. Halekas, and G. T. Delory, LPSC XLIII (3/12)

– 2011 –

Comparisons of ARTEMIS Observations and One-dimensional Particle-in-Cell Simulations, **A. R. Poppe**, J. S. Halekas, G. T. Delory, W. M. Farrell, V. Angelopoulos, AGU (12/11)

Lunar Precursor Effects Observed by ARTEMIS in the Solar Wind and Magnetosphere, J. S. Halekas, G. T. Delory, W. M. Farrell, V. Angelopoulos, **A. R. Poppe**, J. P. McFadden, AGU (12/11)

A Statistical Study of the Lunar Plasma Wake using ARTEMIS Measurements, W. F. Ames, D. Brain, **A. Poppe**, J. Halekas, J. W. Bonnell, J. P. McFadden, K.-H. Glassmeier and V. Angelopoulos, AGU (12/11)

Laboratory simulations of photoelectrons sheaths, A. Dove, X. Wang, S. H. Robertson, **A. Poppe**, M. Horányi, AGU (12/11)

Dust measurements by the Student Dust Counter on-board the New Horizons mission, M. Horányi, **A. Poppe** and J. Szalay, EPS-DPSC, (10/11)

One-dimensional particle-in-cell (PIC) simulations of an ARTEMIS lunar wake crossing at 3.5 R_L, **A. Poppe**, J. S. Halekas, G. T. Delory, V. Angelopoulos, and M. Horányi, NASA Lunar Science Forum (7/11)

Simulations of the Lunar Dusty Plasma Environment, 6th International Conference on the Physics of Dusty Plasmas, **A. Poppe**, J. S. Halekas, M. Piquette, A. Likhanskii, P. Messmer and M. Horányi, Garmisch-Partenkirchen, Germany, (6/11)

Photoemitting Dusty Surfaces in Space, 6th International Conference on the Physics of Dusty Plasmas, A. Dove, M. Horányi, **A. Poppe**, S. Robertson, X. Wang, Garmisch-Partenkirchen, Germany, (6/11)

The Effect of Nix and Hydra on the Putative Pluto-Charon Dust Cloud, **A. Poppe** and M. Horányi, LPSC XLII, (3/11)

Electrostatic Effects on Dust Transport in the Lunar Plasma Environment, M. Piquette, **A. Poppe**, M. Horányi, P. Messmer and A. Likhanskii, YSS Undergraduate Conference on Planetary Science, (3/11)

– 2010 –

Non-monotonic potentials above the lunar surface: Implications for electron reflectometry measurements, **A. Poppe**, J. S. Halekas and M. Horányi, AGU, (12/10)

3D Particle-In-Cell (PIC) simulations of plasma sheath formation above lunar craters, A. Likhanskii, **A. Poppe**, M. Piquette, K. Amyx, P. Messmer, M. Horányi, AGU, (12/10)

Dust transport and electric field distributions in planetary craters, X. Wang, M. Horányi, **A. Poppe** and A. Likhanskii, AGU, (12/10)

Simulations of the Near-Surface Lunar Plasma Environment: Implications for Electron Reflectometry Measurements of the Lunar Surface Potential, **A. Poppe**, J. S. Halekas, M. Horányi, 5^{th} Alfvén Conference, Sapporo, Japan, (10/10)

Three-dimensional particle-in-cell (PIC) simulations of the lunar dusty plasma environment, **A. Poppe**, M. Piquette, A. Likhanskii, P. Messmer and M. Horányi, NASA Lunar Science Forum, NASA-ARC, (7/10)

Dust mobilization on the lunar surface, M. Horányi and **A. Poppe**, NASA Lunar Science Forum, NASA-ARC, (7/10)

Probing the dayside lunar surface-plasma interface in the solar wind, J. S. Halekas, G. T. Delory, **A. Poppe**, and M. Horányi, NASA Lunar Science Forum, NASA-ARC, (7/10)

Interplanetary dust density measurements in the outer solar system by the Venetia Burney Student Dust Counter on the New Horizons Mission, **A. Poppe** and M. Horányi, Dusty Visions Conference, Göttingen, Germany

Investigation of near-surface lunar dust transport in the laboratory, Z. Sternovsky, M. Horányi, E. Grün, S. Robertson, X. Wang, A. Dove, T. Munsat, **A. Poppe**, N. Duncan, S. Auer, COSPAR, (7/10), Bremen, Germany

The Lunar Photoelectron Sheath: 1-d PIC Simulations and Dust Dynamics, **A. Poppe** and M. Horányi, 41^{st} LPSC, The Woodlands, TX

Measurements of the Interplanetary Dust Distribution by the Student Dust Counter on the New Horizons Mission, **A. Poppe**, B. Jacobsmeyer, D. James and M. Horányi, 41^{st} LPSC, The Woodlands, TX

Simulations of the lunar photoelectron sheath and associated dust dynamics, **A. Poppe** and M. Horányi, Lunar Dust, Plasma and Atmosphere: The Next Steps, Boulder, CO, (1/10)

Particle-in-cell Simulations of Dust Laden Photoelectrons Sheaths on the Lunar Surface, **A. Poppe** and M. Horányi, URSI, (1/10)

– 2009 –

Particle-in-cell Simulations of the Lunar Photoelectron Sheath, **A. Poppe** and M. Horányi, AGU, (12/09)

The Lunar Dusty Plasma Environment: 1- and 2-d Particle-in-Cell Simulations, **A. Poppe** and M. Horányi, NASA Lunar Science Forum 2009, NASA-ARC, (7/09)

Particle-in-Cell Simulations of the Lunar Dusty Plasma Environment, **A. Poppe** and M. Horányi, 12th Workshop on the Physics of Dusty Plasmas (WPDP12), (5/09)

Kinetic modeling of the sheath scale in the lunar plasma environment, P. Messmer, K. Amyx, S. Robertson, **A. Poppe** and M. Horányi, 12th Workshop on the Physics of Dusty Plasmas (WPDP12), (5/09)

Particle-in-Cell Simulations of the Lunar Dusty Plasma Environment, **A. Poppe** and M. Horányi, URSI, (1/09)

– 2008 –

The Cosmic Dust Experiment of AIM, **A. Poppe**, D. James, M. Horányi, AGU, (12/08)

Dust Measurements Between Earth and Saturn by the Venetia Burney Student Dust Counter of the New Horizons Mission, D. James, **A. Poppe**, M. Horányi, AGU (12/08)

Monitoring the Micrometeoroid Flux by the Cosmic Dust Experiment (CDE) onboard the AIM Mission, **A. Poppe**, D. James, M. Horányi, COSPAR (7/08)

Dust Measurements by the Student Dust Counter (SDC) onboard the New Horizons Mission, D. James, M. Horányi, **A. Poppe**, COSPAR (7/08)

The micrometeoric input function in the upper atmosphere: A comparison between model predictions, HPLA, meteor radars and AIM-CDE dust detectors, D. Janches, J.T. Fentzke, K. Johnson, S.E. Palo, M. Horányi, **A. Poppe**, D. James, COSPAR, (7/08)

Surface Plasma Interactions on the Moon, M. Horányi, X. Wang, S. Robertson, **A. Poppe**, ICPDP5 (6/08)

The Variability of the Cosmic Dust Influx as Observed by AIM, M. Horányi, **A. Poppe**, D. James, AGU (5/08)

The Cosmic Dust Experiment (CDE) Onboard the Aeronomy of Ice in the Mesosphere Mission, M. Horányi, **A. Poppe**, D. James, URSI (1/08)

Laboratory experiments for AIM CDE Noise Analysis, D. James, **A. Poppe**, M. Horányi, URSI (1/08)

– 2007 –

Dust Measurements Onboard the New Horizons Mission, **A. Poppe**, D. James, M. Horányi, AGU (12/07)

The Variability of Cosmic Dust Influx as seen by the AIM Satellite, D. James, **A. Poppe**, M. Horányi, J. Fentzke, D. Janches, AGU (12/07)

VEIL: A New Frontiers Class Mission Concept for Exploring Venus, M. Kokorowski, J. Benson, S. Desiano, C. Gifford, T. Hannel, W. Huang, B. Johns, K. Lichtenberg, R. Macke, G. Minelli, C. Neish, **A. Poppe**, B. Schmidt, S. Taniguchi, D. Thompson, T. Balint, AGU (12/07)

VEIL (Venus Exploration In-situ Landers): A New Frontiers Class Mission Design Concept, C. Neish, J. Benson, S. Desiano, C. Gifford, T. Hannel, W. Huang, B. Johns, M. Kokorowski, K. Lichtenberg, R. Macke, G. Minelli, **A. Poppe**, B. Schmidt, S. Taniguchi, D. Thompson, T. Balint, DPS (10/07)

VEIL (Venus Exploration In-situ Landers): A New Frontiers Class Mission Design Concept, K. Lichtenberg, J. Benson, S. Desiano, C. Gifford, T. Hannel, W. Huang, B. Johns, M. Kokorowski, R. Macke, G. Minelli, C. Neish, **A. Poppe**, B. Schmidt, S. Taniguchi, D. Thompson, T. Balint, NSC: NOSSE (10/07)

The Cosmic Dust Experiment (CDE) on the Aeronomy of Ice in the Mesosphere Mission, M. Horányi, D. James, **A. Poppe**, Eighth Conference on Layered Phenomena in the Mesopause Region, (8/07)

– 2005 –

Solar occultation measurements of the thermosphere by the TIMED Solar EUV Experiment (SEE), F. Eparvier, D. Woodraska, T. Woods, **A. Poppe**, AGU (12/05)

Honors and Awards

Eagle Scout, Troop 815, Morrison, CO, 2000

NASA Group Achievement Award - TIMED/SEE Science Team, 2011

Outstanding Student Paper, Planetary Sciences, AGU Fall Meeting, 2010

NASA Group Achievement Award - New Horizons Spacecraft Development Team, 2007

NASA Goddard Space Flight Center Certificate of Recognition - ICESat Operations, 2006

NASA Goddard Space Flight Center Certificate of Recognition - SORCE Operations, 2006

Robert C. Byrd Scholar, 2002-2006

Valedictorian, Bear Creek High School, Lakewood, CO, May 2002

National Merit Commended Student, May 2002

Activities

Volunteer, Boulder County Homeless Shelter, 2006 - 2009

Member, Society of Physics Students, 2005-2011

Member, Sigma Pi Sigma National Physics Honor Society, 2005-2006

Member, Phi Sigma Pi National Honor Fraternity, 2003-2006

Member, Kappa Kappa Psi National Honorary Band Fraternity, 2003-2006

Professional Experience

EchoStar Communications Corp., Littleton, Colorado, USA

Summer Intern - IT Data Networking Group **June 2001 - July 2001**

Shadowed IT-DN professionals carrying out development, maintenance and troubleshooting of Cisco Networking equipment. Specifically responsible for developing a daily operations manual for IT-DN group.

Summer Intern - IT Data Networking Group **May 2002 - August 2002**

Shadowed IT-DN professionals carrying out development, maintenance and troubleshooting of Cisco Networking equipment. Specifically responsible for asset tracking IT-DN networking equipment.

Computer Skills

IDL, Unix, C, Mathematica, MathCad