

## SSERVI DREAM2 Publications list (late 2012 to Jan 2015)

- Davis, S, Marshall, J. Richard, D, Adler, D. Adler, B. (2014). Scattering properties of lunar dust analogs. *Planet. Space Sci.* , 90, 28-36 . **SSERVI-2014-008**
- Stubbs, T. J., W. M. Farrell, J. S. Halekas, J. K. Burchill, M. R. Collier , M. I. Zimmerman , R. R. Vondrak , G. T. Delory , and R. F. Pfaff (2014), Dependence of lunar surface charging on solar wind plasma conditions and solar radiation, *Planet. Space Sci.*, 90, 10-27, **SSERVI-2014-009**
- Zimmerman, M. I., W. M. Farrell, and A. R. Poppe (2014), Grid-free plasma simulations of the complex interactions between the solar wind and small, near-Earth asteroids, *Icarus*, 238, 77-85. **SSERVI-2013-030**
- Lipatov, A. S., J. F. Cooper, E. C. Sittler Jr., and R. E. Hartle (2013), The light (H<sup>+</sup>, H<sub>2</sub><sup>+</sup>, He<sup>+</sup>) and heavy (Na<sup>+</sup>) pickup ion dynamics in the lunar plasma environment: 3D hybrid kinetic modeling, *Adv. Sp. Res. (Advances in Space Research)* , 52, 1929-1938. **SSERVI-2013-031**
- Poppe, A.R., J.S. Halekas, M. Sarantos, and G.T. Delory (2013), The self-sputtered contribution to the lunar exosphere, *J. Geophys. Res.: Planets*, 118, 1934-1944, DOI: 10.1002/jgre.20148 **SSERVI-2013-032**
- Feldman, P. D., D. A. Glenar, T. J. Stubbs, K. D. Retherford, P. F. Miles, T. K. Greathouse, D. E. Kaufmann, J. W. Parker, and S. A. Stern (2014) , Upper limits for a lunar dust exosphere from far-ultraviolet spectroscopy by LRO/LAMP, *Icarus*, 233, 106-113. **SSERVI-2013-033**
- Farrell, W. M., D. M. Hurley, R. R. Hodges, R. M. Killen, J. S. Halekas, M. I. Zimmerman, and G. T. Delory (2013), Redistribution of lunar polar water to mid-latitudes and its role in forming an OH veneer, *Planet. Space Sci.*, 89, 15, **SSERVI-2013-029**
- Walker, J. J., M. E. Koepke, M. I. Zimmerman, W. M. Farrell, and V. I. Demidov (2013), Analytical model for gyro-phase drift arising from abrupt inhomogeneity, *J. Plasma Phys.*, published online 13 Dec 2013, DOI: <http://dx.doi.org/10.1017/S0022377813001359> **SSERVI-2013-034/student**
- Chi, P. J., C. T. Russell, H. Y. Wei, and W. M. Farrell (2013), Observations of Narrowband Ion Cyclotron Waves on the Surface of the Moon in the Terrestrial Magnetotail, *Planetary Space Sci.*, 89, 21-28. **SSERVI-2013-035**
- Farrell, W. M., D. M. Hurley, and M. I. Zimmerman (2014), Solar wind implantation into lunar regolith: Hydrogen retention in a surface with defects, *Icarus*, in press/available online. **SSERVI-2014-010**
- Spence, H. E., M. J. Golightly, C. J. Joyce, M. D. Looper, N. A. Schwadron, S. S. Smith, L. W. Townsend, J. Wilson, and C. Zeitlin (2013), "Relative contributions of galactic cosmic rays and lunar proton "albedo" to dose and dose rates near the Moon", *Space Weather*, 11, 643–650, DOI: 10.1002/2013SW000995. **SSERVI-2013-036**

- Joyce, C. J., N. A. Schwadron, J. K. Wilson, H. E. Spence, J. C. Kasper, M. Golightly, J. B. Blake, J. Mazur, L. W. Townsend, A. W. Case, E. Semones, S. Smith and C. J. Zeitlin (2013), "Validation of PREDICCS using LRO/CRaTER observations during three major solar events in 2012", *Space Weather*, 11, 350–360, DOI: 10.1002/swe.20059 **SSERVI-2013-037/Student**
- Joyce, C. J., N. A. Schwadron, J. K. Wilson, H. E. Spence, J. C. Kasper, M. Golightly, J. B. Blake, L. W. Townsend, A. W. Case, E. Semones, S. Smith and C. J. Zeitlin (2014), "Radiation modeling in the Earth and Mars atmospheres using LRO/CRaTER with the EMMREM Module", *Space Weather*, DOI: 10.1002/2013SW000997 **SSERVI-2014-499/Student**
- Collier, M. C., et al. (2014), On lunar exospheric column densities and solar wind access beyond the terminator from ROSAT soft x-ray observations of solar wind charge exchange, *J. Geophys. Res.*, *J. Geophys. Res.*, 119, 1459-1479 **SSERVI-2014-098**
- Poppe, A. R., S. Fatemi, J. S. Halekas, M. Holmstrom, and G. T. Delory (2014), ARTEMIS observations of extreme diamagnetic fields in the lunar wake, *Geophys. Res. Lett.*, 41, 3766-3773. **SSERVI-2014-093/Student**
- Jordan, A. P., T. J. Stubbs, J. K. Wilson, N. A. Schwadron, H. E. Spence, and C. J. Joyce (2014), Deep dielectric charging of regolith within the Moon's permanently shadowed regions, *J. Geophys. Res.*, 119, 1806-1821, DOI: 10.1002/2014JE004648. **SSERVI-2014-095**
- Halekas, J. S. et al. (2014), 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.*, 119, 5133-5149. **SSERVI-2014-096**
- Poppe, A. R., M. Sarantos, J. S. Halekas, G. T. Delory, and Y. Saito (2014), Anisotropic solar wind sputtering of the lunar surface induced by crustal magnetic anomalies, *Geophys. Res. Lett.*, 41, 4865-4872, DOI: 10.1002/2014GL060523. **SSERVI-2014-097**
- Hijazi, H., M. E. Bannister, H. M. Meyer III, C. M. Rouleau, A. F. Barghouty, D. L. Rickman, and F. W. Meyer (2014), Anorthite sputtering by  $H^+$  and  $Ar^{q+}$  ( $q=1-9$ ) at solar wind velocities, *J. Geophys. Res.: Space Physics*, 119, 8006-8016, doi:10.1002/2014JA020140. **SSERVI-2014-100**
- Jackson, T. L., W. M. Farrell, M. I. Zimmerman, Rover wheel charging within a lunar crater, *Adv. Space Res.*, in press, **SSERVI-2014-168**
- Poppe, A. R., and S. M. Curry, Martian planetary heavy ion sputtering of Phobos, *Geophys. Res. Lett.*, 41, 6335-6341, **SSERVI-2014-171/postdoc**
- Glenar, D. A., T. J. Stubbs, J. M. Hahn, and Y. Wang (2014), Search for a high altitude lunar dust exosphere using Clementine navigational star tracker measurements, *J. Geophys. Res.*, published online, 10.1002/2014JE004702, **SSERVI-2014-173**

- Jordan, A. P., T. J. Stubbs, J. K. Wilson, N. A. Schwadron, and H. E. Spence (2014), Dielectric breakdown weathering of the Moon's polar regolith, *J. Geophys. Res.*, submitted, **SSERVI-2014-177**
- Fatemi, S., M. Holmström, Y. Futaana, C. Lue, M. R. Collier, S. Barabash, and G. Stenberg (2014), Effects of protons reflected by lunar crustal magnetic fields on the global lunar plasma environment, *J. Geophys. Res. Space Physics*, *119*, doi:10.1002/2014JA019900. **SSERVI-2014-500/Student**
- Schwadron, N. A., S. Smith and H. E. Spence (2013), The CRaTER Special Issue of Space Weather: Building the observational foundation to deduce biological effects of space radiation, *Space Weather*, *11*, 47, doi:10.1002/20026. **SSERVI-2014-221**
- Jordan, A.P., T. J. Stubbs, C. J. Joyce, N.A. Schwadron, H. E. Spence, J. K. Wilson (2013), "The formation of molecular hydrogen from water ice in the lunar regolith by energetic charged particles", *JGR: Planets*, vol. 118, 1-8, DOI: 10.1002/jgre.20095. **SSERVI-2014-222/Student**
- Halekas, J. S., A. R. Poppe, J. P. McFadden, V. Angelopoulos, K.-H. Glassmeier, and D. A. Brain (2014), Evidence for small-scale collisionless shocks at the Moon from ARTEMIS, *Geophys. Res. Lett.*, *41*, 7436-7443. **SSERVI-2014-225**
- Schwadron, N. A., J. B. Blake, A. W. Case, C. J. Joyce, J. Kasper, J. Mazur, N. Petro, M. Quinn, J. A. Porter, C. W. Smith, S. Smith, H. E. Spence, L. W. Townsend, R. Turner, J. K. Wilson, and C. Zeitlin (2014), Does the worsening galactic cosmic radiation environment observed by CRaTER preclude future manned deep-space exploration?, *Space Weather*, *12*, 622-632. **SSERVI-2014-239**
- Poppe, A. R., M. I. Zimmerman, J. S. Halekas, and W. M. Farrell (2015), The electrostatic plasma environment of a small airless body under non-aligned plasma flow and UV conditions, *Planetary Space Sci.*, submitted, **SSERVI-2014-274**
- Fatemi, Shahab, Charles Lue, Mats Holmstrom, Andrew R. Poppe, Martin Wieser, Stas Barabash, and Gregory T. Delory (2015), Solar wind plasma interaction with Gerasimovich lunar magnetic anomaly, *J. Geophys. Res.*, submitted. **SSERVI-2015-026**