

**Jasper S. Halekas**  
Curriculum Vitae as of May 19, 2017

---

Campus Address: Physics and Astronomy, 414 Van Allen, University of Iowa  
Phone: (319) 335-1929  
E-mail: [jasper-halekas@uiowa.edu](mailto:jasper-halekas@uiowa.edu)

---

## EDUCATION AND PROFESSIONAL HISTORY

### Higher Education

2003      **PhD**, Physics, University of California Berkeley  
2000      **MA**, Physics, University of California Berkeley  
1997      **BS**, Math, Magna Cum Laude, University of Washington  
1997      **BS**, Physics, Magna Cum Laude, University of Washington

### Professional and Academic Positions

2014 - Present      **Associate Professor**, University of Iowa  
2011 - 2014      **Associate Research Physicist II**, University of California Berkeley  
2009 - 2011      **Assistant Research Physicist V**, University of California Berkeley  
2007 - 2009      **Assistant Research Physicist III**, University of California Berkeley  
2005 - 2007      **Assistant Research Physicist I**, University of California Berkeley  
2003 - 2005      **Visiting Postdoctoral Research Physicist**, University of California Berkeley  
1998 - 2003      **Graduate Student Researcher**, University of California Berkeley  
1996 - 1998      **Undergraduate Research**, University of Washington  
1995      **Undergraduate Research**, University of California Berkeley

### Honors and Awards

2016      **Exceptional Scientific Achievement Medal**, NASA, For exceptional contributions to MAVEN's science return using the Solar Wind Ion Analyzer (SWIA) instrument.  
2016      **Group Achievement Award for Science Team for MAVEN Mission**, NASA, For achieving exciting science results and making fundamental discoveries about the Mars environment from the MAVEN spacecraft  
2015      **Editor's Citation for Excellence in Refereeing**, Geophysical Research Letters, For outstanding service to the authors and readers of Geophysical Research Letters  
2014      **Exceptional Achievement for Engineering Team Award**, NASA, For the outstanding team that delivered on all MAVEN technical, schedule, and cost commitments through launch for Goddard's first mission to Mars.  
2001 - 2003      **NASA Graduate Student Researchers Program**, University of California Berkeley  
2000      **NASA Space Grant Summer Fellowship**, University of California Berkeley  
1998 - 1999      **Department of Education Fellowship**, University of California Berkeley  
1993 - 1997      **NASA Space Grant Scholarship**, University of Washington

### Memberships

American Geophysical Union

---

## TEACHING

### Courses Taught at the University of Iowa

Term	Course#	Title	Enrollment
Spring 2017	HONR:3050:4738	Honors Studies	1
Spring 2017	PHYS:2704:0AAA	Physics IV	30
Spring 2017	PHYS:2704:0BBB	Physics IV	2

Spring 2017	ASTR:7991:4690	Research: Astronomy	1
Spring 2017	PHYS:7990:4685	Research: Physics	3
Spring 2017	URES:3992:5655	Undergraduate Research/Creative Projects	1
Fall 2016	PHYS:1511:0AAA	College Physics I	301
Fall 2016	HONR:3994:3587	Honors Research Practicum	1
Fall 2016	ASTR:7991:1539	Research: Astronomy	1
Fall 2016	PHYS:7990:1854	Research: Physics	3
Fall 2016	PHYS:4999:3499	Undergraduate Research	1
Fall 2016	URES:3992:3597	Undergraduate Research/Creative Projects	2
Summer 2016	URES:3992:2832	Undergraduate Research/Creative Projects	1
Spring 2016	PHYS:1702:000A	Physics II	24
Spring 2016	PHYS:7990:0052	Research: Physics	2
Fall 2015	PHYS:1511:0AAA	College Physics I	284
Fall 2015	PHYS:7990:0052	Research: Physics	2
Summer 2015	PHYS:7990:0052	Research: Physics	2
Spring 2015	PHYS:1702:000A	Physics II	23

### Student Mentoring (\* indicates chair of the committee)

#### PHD

##### Advisor

- 2016 - Present      McGinnis, Daniel; *In Process*  
 2015 - Present      Andreone, Gian; *In Process*  
 2015 - Present      Howard, Stephanie; *In Process*

##### Supervised Teaching Activity

- 2017                  Heitritter, Kenneth  
 2016                  Alhusseini, Mohammad  
 2016                  Gustafson, Erik  
 2016                  Holdaway, Robert  
 2016                  Martinez Martinez, Manuel  
 2016                  Schrock, Katrina  
 2016                  McGinnis, Daniel  
 2015                  Berumen Canto, Jorge  
 2015                  Kuthini Kunammed, Sirajudheen  
 2015                  McMillan, Stephen  
 2015                  Unmuth-Yockey, Judah  
 2015                  Whiting, Catherine; *Completed*

##### Thesis/Dissertation Committee

- 2016 - Present      Scheiner, Brett; *In Process*  
 2015 - Present      Holdaway, Robert; *In Process*  
 2014 - 2015        Hemingway, Doug; *Completed*

#### MS

##### Advisor

- 2015 - 2017        Tiedeken, Staci; *Completed*

### Professional Mentoring (\* indicates chair of the committee)

#### Postdoctoral Research Supervision

- 2016 - Present      Lue, Charles  
 2015 - Present      Walker, Jeffrey  
 2014 - 2017        Ruhunusiri, Suranga *Assistant Research Scientist/Engineer*

**Supervised Research**

2017 - Present	Reed, Mason; <i>In Process Testing microchannel plate detectors</i>
2016 - Present	Lipman, Dani; <i>In Process Characterizing the Martian Bow Shock</i>
2016 - Present	Reed, Logan Kelly; <i>In Process Testing an energetic ion beam source in the laboratory.</i>
2016 - 2017	Raman, Caleb; <i>In Process Analysis of escaping ions in the magnetotail of Mars</i>
2016	Larson, Joshua; <i>In Process Designing a Charged Particle Calibration System</i>
2016	Khan, Kallin; <i>In Process Analysis of solar wind hydrogen deposition in the atmosphere of Mars</i>
2016	Xie, Tianshi; <i>In Process Search for snowplow boundary layer signatures at Mars</i>
2015 - 2016	Schmitz, Frank; <i>Completed Designing and building a 3-axis manipulator for charged particle instrument calibration.</i>
2015	Sink, Joseph; <i>Completed</i>
2015	Isbell, Jacob; <i>Completed Simulating Charged Particles at Europa</i>
2015	Parker, Devin; <i>Completed Search for Phobos signatures in MAVEN Data</i>

---

**SCHOLARSHIP****Publications**

CLAS \* System \* = Senior Author, Major Contribution, \*\* = Secondary Contribution \*\*\* = Equal Contribution, \*\*\*\* = Minor Contribution

**Refereed Articles**

1. \* Walker, J.J., Halekas, J.S., Horányi, M., Szalay, J.R., Poppe, A.R. (2017). Evidence for detection of energetic neutral atoms by LADEE. *Planetary Space Science*, 139, 31-36.
2. \*\*\* Rahmati, A., Larson, D.E., Cravens, T.E., Lillis, R.J., Halekas, J.S., McFadden, J.P., Dunn, P.A., Mitchell, D.L., Thiemann, E.M.B., Eparvier, F.G., DiBraccio, G.A., Espley, J.R., Mazelle, C., Jakosky, B.M. (2017). MAVEN measured oxygen and hydrogen pickup ions: Probing the Martian exosphere and neutral escape. *Journal of Geophysical Research (Space Physics)*, 122, 3689-3706.
3. \*\*\* Lee, C.Ö., Hara, T., Halekas, J.S., Thiemann, E., Chamberlin, P., Eparvier, F., Lillis, R.J., Larson, D.E., Dunn, P.A., Espley, J.R., Gruesbeck, J., Curry, S.M., Luhmann, J.G., Jakosky, B.M. (2017). MAVEN observations of the solar cycle 24 space weather conditions at Mars. *Journal of Geophysical Research (Space Physics)*, 122, 2768-2794.
4. \*\*\*\* Lillis, R.J., Deighan, J., Fox, J.L., Bougher, S.W., Lee, Y., Combi, M.R., Cravens, T.E., Rahmati, A., Mahaffy, P.R., Benna, M., Elrod, M.K., McFadden, J.P., Ergun, R.E., Andersson, L., Fowler, C.M., Jakosky, B.M., Thiemann, E., Eparvier, F., Halekas, J.S., Leblanc, F., Chaufray, J.-Y. (2017). Photochemical escape of oxygen from Mars: First results from MAVEN in situ data. *Journal of Geophysical Research (Space Physics)*, 122, 3815-3836.
5. \*\*\* Meziane, K., Mazelle, C.X., Romanelli, N., Mitchell, D.L., Espley, J.R., Connerney, J.E.P., Hamza, A.M., Halekas, J., McFadden, J.P., Jakosky, B.M. (2017). Martian electron foreshock from MAVEN observations. *Journal of Geophysical Research (Space Physics)*, 122, 1531-1541.
6. \*\*\* Ma, Y.J., Russell, C.T., Fang, X., Dong, C.F., Nagy, A.F., Toth, G., Halekas, J.S., Connerney, J.E.P., Espley, J.R., Mahaffy, P.R., Benna, M., McFadden, J., Mitchell, D.L., Andersson, L., Jakosky, B.M. (2017). Variations of the Martian plasma environment during the ICME passage on 8 March 2015: A time-dependent MHD study. *Journal of Geophysical Research (Space Physics)*, 122, 1714-1730.
7. \* Ruhunusiri, S., Halekas, J.S., Espley, J.R., Mazelle, C., Brain, D., Harada, Y., DiBraccio, G.A., Livi, R., Larson, D.E., Mitchell, D.L., Jakosky, B.M., Howes, G.G. (2017). Characterization of turbulence in the Mars plasma environment with MAVEN observations. *Journal of Geophysical Research (Space Physics)*, 122, 656-674.
8. \*\*\*\* Steckiewicz, M., Garnier, P., André, N., Mitchell, D.L., Andersson, L., Penou, E., Beth, A., Fedorov, A., Sauvaud, J.-A., Mazelle, C., Brain, D.A., Espley, J.R., McFadden, J., Halekas, J.S., Larson, D.E., Lillis, R.J., Luhmann, J.G., Soobiah, Y., Jakosky, B.M. (2017). Comparative study of the Martian

- suprathermal electron depletions based on Mars Global Surveyor, Mars Express, and Mars Atmosphere and Volatile Evolution mission observations. *Journal of Geophysical Research (Space Physics)*, 122, 857-873.
9. \*\*\* Hara, T., Brain, D.A., Mitchell, D.L., Luhmann, J.G., Seki, K., Hasegawa, H., McFadden, J.P., Halekas, J.S., Espley, J.R., Harada, Y., Livi, R., DiBraccio, G.A., Connerney, J.E.P., Mazelle, C., Andersson, L., Jakosky, B.M. (2017). MAVEN observations of a giant ionospheric flux rope near Mars resulting from interaction between the crustal and interplanetary draped magnetic fields. *Journal of Geophysical Research (Space Physics)*, 122, 828-842.
  10. \*\*\* Hara, T., Luhmann, J.G., Leblanc, F., Curry, S.M., Seki, K., Brain, D.A., Halekas, J.S., Harada, Y., McFadden, J.P., Livi, R., DiBraccio, G.A., Connerney, J.E.P., Jakosky, B.M. (2017). MAVEN observations on a hemispheric asymmetry of precipitating ions toward the Martian upper atmosphere according to the upstream solar wind electric field. *Journal of Geophysical Research (Space Physics)*, 122, 1083-1101.
  11. \* Halekas, J.S., Ruhunusiri, S., Harada, Y., Collinson, G., Mitchell, D.L., Mazelle, C., McFadden, J.P., Connerney, J.E.P., Espley, J.R., Eparvier, F., Luhmann, J.G., Jakosky, B.M. (2017). Structure, dynamics, and seasonal variability of the Mars-solar wind interaction: MAVEN Solar Wind Ion Analyzer in-flight performance and science results. *Journal of Geophysical Research (Space Physics)*, 122, 547-578.
  12. \*\*\* Sulaiman, A.H., Gurnett, D.A., Halekas, J.S., Yates, J.N., Kurth, W.S., Dougherty, M.K. (2017). Whistler mode waves upstream of Saturn. *Journal of Geophysical Research (Space Physics)*, 122, 227-234.
  13. \*\*\* Kasper, J.C., Abiad, R., Austin, G., Balat-Pichelin, M., Bale, S.D., Belcher, J.W., Berg, P., Bergner, H., Berthomier, M., Bookbinder, J., Brodu, E., Caldwell, D., Case, A.W., Chandran, B.D.G., Cheimets, P., Cirtain, J.W., Cranmer, S.R., Curtis, D.W., Daigneau, P., Dalton, G., Dasgupta, B., DeTomaso, D., Diaz-Aguado, M., Djordjevic, B., Donaskowski, B., Effinger, M., Florinski, V., Fox, N., Freeman, M., Gallagher, D., Gary, S.P., Gauron, T., Gates, R., Goldstein, M., Golub, L., Gordon, D.A., Gurnee, R., Guth, G., Halekas, J., Hatch, K., Heerikuisen, J., Ho, G., Hu, Q., Johnson, G., Jordan, S.P., Korreck, K.E., Larson, D., Lazarus, A.J., Li, G., Livi, R., Ludlam, M., Maksimovic, M., McFadden, J.P., Marchant, W., Maruca, B.A., McComas, D.J., Messina, L., Mercer, T., Park, S., Peddie, A.M., Pogorelov, N., Reinhart, M.J., Richardson, J.D., Robinson, M., Rosen, I., Skoug, R.M., Slagle, A., Steinberg, J.T., Stevens, M.L., Szabo, A., Taylor, E.R., Tiu, C., Turin, P., Velli, M., Webb, G., Whittlesey, P., Wright, K., Wu, S.T., Zank, G. (2016). Solar Wind Electrons Alphas and Protons (SWEAP) Investigation: Design of the Solar Wind and Coronal Plasma Instrument Suite for Solar Probe Plus. *Space Science Reviews*, 204, 131-186.
  14. \*\*\* Romanelli, N., Mazelle, C., Chaufray, J.Y., Meziane, K., Shan, L., Ruhunusiri, S., Connerney, J.E.P., Espley, J.R., Eparvier, F., Thiemann, E., Halekas, J.S., Mitchell, D.L., McFadden, J.P., Brain, D., Jakosky, B. M. (2016). Proton cyclotron waves occurrence rate upstream from Mars observed by MAVEN: Associated variability of the Martian upper atmosphere. *Journal of Geophysical Research (Space Physics)*, 121(A10), 11.
  15. \*\*\*\* Bamford, R.A., Alves, E.P., Cruz, F., Kellett, B.J., Fonseca, R.A., Silva, L.Ö., Trines, R.M.G.M., Halekas, J.S., Kramer, G., Harnett, E., Cairns, R.A., Bingham, R. (2016). 3D PIC Simulations of Collisionless Shocks at Lunar Magnetic Anomalies and Their Role in Forming Lunar Swirls. *The Astrophysical Journal*, 830, 146.
  16. \*\*\* Harada, Y., Andersson, L., Fowler, C.M., Mitchell, D.L., Halekas, J.S., Mazelle, C., Espley, J., DiBraccio, G.A., McFadden, J.P., Brain, D.A., Xu, S., Ruhunusiri, S., Larson, D.E., Lillis, R.J., Hara, T., Livi, R., Jakosky, B.M. (2016). MAVEN observations of electron-induced whistler mode waves in the Martian magnetosphere. *Journal of Geophysical Research (Space Physics)*, 121, 9717-9731.
  17. \* Poppe, A.R., Fillingim, M.Ö., Halekas, J.S., Raeder, J., Angelopoulos, V. (2016). ARTEMIS observations of terrestrial ionospheric molecular ion outflow at the Moon., 43, 6749-6758.
  18. \*\*\* Dewey, R.M., Baker, D.N., Mays, M.L., Brain, D.A., Jakosky, B.M., Halekas, J.S., Connerney, J.E.P., Odstreil, D., Luhmann, J.G., Lee, C.O. (2016). Continuous solar wind forcing knowledge: Providing continuous conditions at Mars with the WSA-ENLIL + Cone model. *Journal of Geophysical Research (Space Physics)*, 121, 6207-6222.
  19. \* Halekas, J.S., Poppe, A.R., Farrell, W.M., McFadden, J.P. (2016). Structure and composition of the distant lunar exosphere: Constraints from ARTEMIS observations of ion acceleration in time-varying fields. *Journal of Geophysical Research: Planets*, 121.
  20. \*\*\* Hara, T., Luhmann, J.G., Halekas, J.S., Espley, J.R., Seki, K., Brain, D.A., Hasegawa, H., McFadden, J.P., Mitchell, D.L., Mazelle, C., Harada, Y., Livi, R., DiBraccio, G.A., Connerney, J.E.P., Andersson, L.,

- Jakosky, B. M. (2016). MAVEN observations of magnetic flux ropes with a strong field amplitude in the Martian magnetosheath during the ICME passage on 8 March 2015., *43*, 4816-4824.
21. \* Ruhunusiri, S., Halekas, J.S., McFadden, J.P., Connerney, J.E.P., Espley, J.R., Harada, Y., Livi, R., Seki, K., Mazelle, C., Brain, D., Hara, T., DiBraccio, G.A., Larson, D.E., Mitchell, D.L., Jakosky, B.M., Hasegawa, H. (2016). MAVEN observations of partially developed Kelvin-Helmholtz vortices at Mars., *43*, 4763-4773.
  22. \*\* Poppe, A.R., Halekas, J.S., Szalay, J.R., Horányi, M., Levin, Z., Kempf, S. (2016). LADEE/LDEX observations of lunar pickup ion distribution and variability., *43*, 3069-3077.
  23. \*\*\* Masunaga, K., Seki, K., Brain, D.A., Fang, X., Dong, Y., Jakosky, B.M., McFadden, J.P., Halekas, J.S., Connerney, J.E.P. (2016). O<sup>+</sup> ion beams reflected below the Martian bow shock: MAVEN observations. *Journal of Geophysical Research (Space Physics)*, *121*, 3093-3107.
  24. \*\*\* Lillis, R.J., Lee, C.Ö., Larson, D., Luhmann, J.G., Halekas, J.S., Connerney, J.E.P., Jakosky, B.M. (2016). Shadowing and anisotropy of solar energetic ions at Mars measured by MAVEN during the March 2015 solar storm. *Journal of Geophysical Research (Space Physics)*, *121*, 2818-2829.
  25. \* Ruhunusiri, S., Halekas, J.S., Connerney, J.E.P., Espley, J.R., McFadden, J.P., Mazelle, C., Brain, D., Collinson, G., Harada, Y., Larson, D.E., Mitchell, D.L., Livi, R., Jakosky, B.M. (2016). MAVEN observation of an obliquely propagating low-frequency wave upstream of Mars. *Journal of Geophysical Research (Space Physics)*, *121*, 2374-2389.
  26. \*\*\* Harada, Y., Mitchell, D.L., Halekas, J.S., McFadden, J.P., Mazelle, C., Connerney, J.E.P., Espley, J., Brain, D.A., Larson, D.E., Lillis, R.J., Hara, T., Livi, R., DiBraccio, G.A., Ruhunusiri, S., Jakosky, B. M. (2016). MAVEN observations of energy-time dispersed electron signatures in Martian crustal magnetic fields., *43*, 939-944.
  27. \* Halekas, J.S., Brain, D.A., Ruhunusiri, S., McFadden, J.P., Mitchell, D.L., Mazelle, C., Connerney, J.E.P., Harada, Y., Hara, T., Espley, J.R., DiBraccio, G.A., Jakosky, B.M. (2016). Plasma clouds and snowplows: Bulk plasma escape from Mars observed by MAVEN., *43*, 1426-1434.
  28. \*\*\*\* Edberg, N.J.T., Eriksson, A.I., Odelstad, E., Vigrén, E., Andrews, D.J., Johansson, F., Burch, J.L., Carr, C.M., Cupido, E., Glassmeier, K.-H., Goldstein, R., Halekas, J.S., Henri, P., Koenders, C., Mandt, K., Mokashi, P., Nemeth, Z., Nilsson, H., Ramstad, R., Richter, I., Wieser, G.S. (2016). Solar wind interaction with comet 67P: Impacts of corotating interaction regions. *Journal of Geophysical Research (Space Physics)*, *121*, 949-965.
  29. \* Harada, Y., Halekas, J.S. (2016). Upstream Waves and Particles at the Moon. *Washington DC American Geophysical Union Geophysical Monograph Series*, *216*, 307-322.
  30. \* Halekas, J. S., Taylor, E. R., Dalton, G., Johnson, G., Curtis, D. W., McFadden, J. P., Mitchell, D. L., Lin, R. P., Jakosky, B. M. (2015). The Solar Wind Ion Analyzer for MAVEN. *Space Science Reviews*, *195*, 125-151. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84888248116&partnerID=40&md5=bc7b39aca566353747b5a3a0a6746a62>
  31. \*\*\* Espley, J. R., DiBraccio, G. A., Connerney, J. E., Brain, D., Gruesbeck, J., Soobiah, Y., Halekas, J., Combi, M., Luhmann, J., Ma, Y., others (2015). A comet engulfs Mars: MAVEN observations of comet Siding Spring's influence on the Martian magnetosphere. *Geophysical Research Letters*, *42*(21), 8810–8818.
  32. \* Collinson, G., Halekas, J., Grebowsky, J., Connerney, J., Mitchell, D., Espley, J., DiBraccio, G., Mazelle, C., Sauvaud, J.-A., Fedorov, A., others (2015). A hot flow anomaly at Mars. *Geophysical Research Letters*, *42*(21), 9121–9127.
  33. \*\*\* Steckiewicz, M., Mazelle, C., Garnier, P., André, N., Penou, E., Beth, A., Sauvaud, J.-A., Toubanc, D., Mitchell, D., McFadden, J., others (2015). Altitude dependence of nightside Martian suprathermal electron depletions as revealed by MAVEN observations. *Geophysical Research Letters*, *42*(21), 8877–8884.
  34. \* Halekas, J. S., Benna, M., Mahaffy, P. R., Elphic, R. C., Poppe, A. R., Delory, G. T. (2015). Detections of lunar exospheric ions by the LADEE neutral mass spectrometer. *Geophysical Research Letters*, *42*(13), 5162-5169. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84938151186&partnerID=40&md5=99f4f4ba2d23bb4f3e53e16b88c77372>
  35. \* Bougher, S., Jakosky, B., Halekas, J., Grebowsky, J., Luhmann, J., Mahaffy, P., Connerney, J., Eparvier, F., Ergun, R., Larson, D., others (2015). Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. *Science*, *350*(6261), aad0459.
  36. \*\*\* Hara, T., Mitchell, D. L., McFadden, J. P., Seki, K., Brain, D. A., Halekas, J. S., Harada, Y., Espley, J. R., DiBraccio, G. A., Connerney, J. E., others (2015). Estimation of the spatial structure of a detached

- magnetic flux rope at Mars based on simultaneous MAVEN plasma and magnetic field observations. *Geophysical Research Letters*, 42(21), 8933–8941.
37. \*\*\* Luhmann, J., Dong, C., Ma, Y., Curry, S., Mitchell, D., Espley, J., Connerney, J., Halekas, J., Brain, D., Jakosky, B., others (2015). Implications of MAVEN Mars near-wake measurements and models. *Geophysical Research Letters*, 42(21), 9087–9094.
  38. \*\*\* Vogt, M. F., Withers, P., Mahaffy, P. R., Benna, M., Elrod, M. K., Halekas, J. S., Connerney, J. E., Espley, J. R., Mitchell, D. L., Mazelle, C., others (2015). Ionopause-like density gradients in the Martian ionosphere: A first look with MAVEN. *Geophysical Research Letters*, 42(21), 8885–8893.
  39. \* Ruhunusiri, S., Halekas, J., Connerney, J., Espley, JR, McFadden, J., Larson, D., Mitchell, D., Mazelle, C., Jakosky, B. (2015). Low-frequency waves in the Martian magnetosphere and their response to upstream solar wind driving conditions. *Geophysical Research Letters*, 42(21), 8917–8924.
  40. \*\*\* Grava, C., Retherford, K., Hurley, D., Feldman, P., Gladstone, G., Greathouse, T., Cook, J., Stern, S., Pryor, W., Halekas, J., others (2015). Lunar exospheric helium observations of LRO/LAMP coordinated with ARTEMIS. *Icarus*.
  41. \* Harada, Y., Halekas, J., McFadden, J., Mitchell, D., Mazelle, C., Connerney, J., Espley, J., Larson, D., Brain, D., Andersson, L., others (2015). Magnetic reconnection in the near-Mars magnetotail: MAVEN observations. *Geophysical Research Letters*, 42(21), 8838–8845.
  42. \*\*\* DiBraccio, G. A., Espley, J., Gruesbeck, J. R., Connerney, J. E., Brain, D. A., Halekas, J. S., Mitchell, D. L., McFadden, J. P., Harada, Y., Livi, R., others (2015). Magnetotail dynamics at Mars: Initial MAVEN observations. *Geophysical Research Letters*, 42(21), 8828–8837.
  43. \*\*\* Leblanc, F., Modolo, R., Curry, S., Luhmann, J., Lillis, R., Chaufray, J.-Y., Hara, T., McFadden, J., Halekas, J., Eparvier, F., others (2015). Mars heavy ion precipitating flux as measured by Mars Atmosphere and Volatile Evolution. *Geophysical Research Letters*, 42(21), 9135–9141.
  44. \* Harada, Y., Halekas, J., McFadden, J., Mitchell, D., Mazelle, C., Connerney, J., Espley, J., Larson, D., Brain, D., DiBraccio, G., others (2015). Marsward and tailward ions in the near-Mars magnetotail: MAVEN observations. *Geophysical Research Letters*, 42(21), 8925–8932.
  45. \*\*\* Rahmati, A., Larson, D., Cravens, T., Lillis, R., Dunn, P., Halekas, J., Connerney, J., Eparvier, F., Thiemann, E., Jakosky, B. (2015). MAVEN insights into oxygen pickup ions at Mars. *Geophysical Research Letters*, 42(21), 8870–8876.
  46. \* Halekas, J., Lillis, R., Mitchell, D., Cravens, T., Mazelle, C., Connerney, J., Espley, JR, Mahaffy, P., Benna, M., Jakosky, B., others (2015). MAVEN observations of solar wind hydrogen deposition in the atmosphere of Mars. *Geophysical Research Letters*, 42(21), 8901–8909.
  47. \* Jakosky, B. M., Grebowsky, J. M., Luhmann, J. G., Connerney, J., Eparvier, F., Ergun, R., Halekas, J., Larson, D., Mahaffy, P., Mcfadden, J., others (2015). MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. *Science*, 350(6261), aad0210.
  48. \*\*\* Ma, Y., Russell, C., Fang, X., Dong, Y., Nagy, A., Toth, G., Halekas, J., Connerney, J., Espley, JR, Mahaffy, P., others (2015). MHD model results of solar wind interaction with Mars and comparison with MAVEN plasma observations. *Geophysical Research Letters*, 42(21), 9113–9120.
  49. \*\*\* Dong, C., Ma, Y., Bougher, S. W., Toth, G., Nagy, A. F., Halekas, J. S., Dong, Y., Curry, S. M., Luhmann, J. G., Brain, D., others (2015). Multifluid MHD study of the solar wind interaction with Mars' upper atmosphere during the 2015 March 8th ICME event. *Geophysical Research Letters*, 42(21), 9103–9112.
  50. \*\*\* Fatemi, S., Fuqua, H., Poppe, A., Delory, G., Halekas, J., Farrell, W., Holmström, M. (2015). On the confinement of lunar induced magnetic fields. *Geophysical Research Letters*, 42(17), 6931–6938.
  51. \*\*\* Curry, S. M., Luhmann, J. G., Ma, Y. J., Dong, C., Brain, D., Leblanc, F., Modolo, R., Dong, Y., McFadden, J., Halekas, J., others (2015). Response of Mars O<sup>+</sup> pickup ions to the 8 March 2015 ICME: Inferences from MAVEN data-based models. *Geophysical Research Letters*, 42(21), 9095–9102.
  52. \*\*\* Luhmann, J. G., Ma, Y. J., Brain, D. A., Ulusen, D., Lillis, R. J., Halekas, J. S., Espley, J. R. (2015). Solar wind interaction effects on the magnetic fields around Mars: Consequences for interplanetary and crustal field measurements. *Planetary and Space Science*.  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84930447061&partnerID=40&md5=ee18971bd0108c6c71a676384e9fbc3d>
  53. \* Harada, Y., Halekas, J. S., Poppe, A. R., Tsugawa, Y., Kurita, S., McFadden, J. P. (2015). Statistical characterization of the forenoon particle and wave morphology: ARTEMIS observations. *Journal of Geophysical Research A: Space Physics*, 120(6), 4907–4921.  
<http://www.scopus.com/inward/record.url?eid=2-s2.0->

- [84937200418&partnerID=40&md5=acb8eb480edc41421afae11e6eb2247f](http://www.scopus.com/inward/record.url?eid=2-s2.0-84937200418&partnerID=40&md5=acb8eb480edc41421afae11e6eb2247f)
54. \*\*\* Dong, Y., Fang, X., Brain, D., McFadden, J., Halekas, J., Connerney, J., Curry, S., Harada, Y., Luhmann, J., Jakosky, B. (2015). Strong plume fluxes at Mars observed by MAVEN: An important planetary ion escape channel. *Geophys. Res. Lett.*, 42, 2.
  55. \* Nordheim, T., Jones, G. H., Halekas, J., Roussos, E., Coates, A. J. (2015). Surface charging and electrostatic dust acceleration at the nucleus of comet 67P during periods of low activity. *Planetary and Space Science*, 119, 24–35.
  56. \*\*\* Poppe, A. R., Zimmerman, M. I., Halekas, J. S., Farrell, W. M. (2015). The electrostatic plasma environment of a small airless body under non-aligned plasma flow and UV conditions. *Planetary and Space Science*. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84932094090&partnerID=40&md5=20d6fa415f0e91457071ccf3d0c11f0d>
  57. \*\*\* Jakosky, B. M., Lin, R. P., Grebowsky, J. M., Luhmann, J. G., Mitchell, D. F., Beutelschies, G., Priser, T., Acuna, M., Andersson, L., Baird, D., Baker, D., Bartlett, R., Benna, M., Bougher, S., Brain, D., Carson, D., Cauffman, S., Chamberlin, P., Chaufray, J. Y., Cheatom, O., Clarke, J., Connerney, J., Cravens, T., Curtis, D., Delory, G., Demcak, S., DeWolfe, A., Eparvier, F., Ergun, R., Eriksson, A., Espley, J., Fang, X., Folta, D., Fox, J., Gomez-Rosa, C., Habenicht, S., Halekas, J., Holsclaw, G., Houghton, M., Howard, R., Jarosz, M., Jedrich, N., Johnson, M., Kasprzak, W., Kelley, M., King, T., Lankton, M., Larson, D., Leblanc, F., Lefevre, F., Lillis, R., Mahaffy, P., Mazelle, C., McClintock, W., McFadden, J., Mitchell, D. L., Montmessin, F., Morrissey, J., Peterson, W., Possel, W., Sauvaud, J. A., Schneider, N., Sidney, W., Sparacino, S., Stewart, A. I. F., Tolson, R., Toubanc, D., Waters, C., Woods, T., Yelle, R., Zurek, R. (2015). The Mars Atmosphere and Volatile Evolution (MAVEN) Mission. *Space Science Reviews*. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84927546333&partnerID=40&md5=a76d59f12d7ad846907be912c282fd33>
  58. \*\*\* Brain, D. A., McFadden, J., Halekas, J. S., Connerney, J., Bougher, S. W., Curry, S., Dong, C., Dong, Y., Eparvier, F., Fang, X., others (2015). The spatial distribution of planetary ion fluxes near Mars observed by MAVEN. *Geophysical Research Letters*, 42(21), 9142–9148.
  59. \* Halekas, J., McFadden, J., Connerney, J., Espley, JR, Brain, D., Mitchell, D., Larson, D., Harada, Y., Hara, T., Ruhunusiri, S., others (2015). Time-dispersed ion signatures observed in the Martian magnetosphere by MAVEN. *Geophysical Research Letters*, 42(21), 8910–8916.
  60. \* Hurley, D. M., Cook, J. C., Benna, M., Halekas, J. S., Feldman, P. D., Retherford, K. D., Hodges, R. R., Grava, C., Mahaffy, P., Gladstone, G. R., others (2015). Understanding temporal and spatial variability of the lunar helium atmosphere using simultaneous observations from LRO, LADEE, and ARTEMIS. *Icarus*.
  61. \* Benna, M., Mahaffy, P. R., Halekas, J. S., Elphic, R. C., Delory, G. T. (2015). Variability of helium, neon, and argon in the lunar exosphere as observed by the LADEE NMS instrument. *Geophysical Research Letters*, 42(10), 3723-3729. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84931576658&partnerID=40&md5=7428f8020f92e855634368f1be15ab37>
  62. \*\* Connerney, J.E.P., Espley, J.R., DiBraccio, G.A., Gruesbeck, J.R., Oliverson, R.J., Mitchell, D.L., Halekas, J., Mazelle, C., Brain, D., Jakosky, B.M.!!! (2015). First results of the MAVEN magnetic field investigation., 42, 8819-8827.
  63. \*\*\* Curry, S.M., Luhmann, J.G., Ma, Y.J., Dong, C.F., Brain, D., Leblanc, F., Modolo, R., Dong, Y., McFadden, J., Halekas, J., Connerney, J., Espley, J., Hara, T., Harada, Y., Lee, C., Fang, X., Jakosky, B.!!! (2015). Response of Mars O<sup>+</sup> pickup ions to the 8 March 2015 ICME: Inferences from MAVEN data-based models. *Geophysical Research Letters*, 42, 9095-9102.
  64. \*\*\* Poppe, A. R., Sarantos, M., Halekas, J. S., Delory, G. T., Saito, Y., Nishino, M. (2014). Anisotropic solar wind sputtering of the lunar surface induced by crustal magnetic anomalies. *Geophysical Research Letters*, 41(14), 4865-4872. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84904518679&partnerID=40&md5=77e3d5f686f49d121d0ce8bbd31cf038>
  65. \*\*\* Poppe, A. R., Fatemi, S., Halekas, J. S., Holmström, M., Delory, G. T. (2014). ARTEMIS observations of extreme diamagnetic fields in the lunar wake. *Geophysical Research Letters*, 41(11), 3766-3773. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84902057753&partnerID=40&md5=b08b3a8026d371ae1fee2eb2db17f260>
  66. \*\*\* Stubbs, T. J., Farrell, W. M., Halekas, J. S., Burchill, J. K., Collier, M. R., Zimmerman, M. I., Vondrak, R. R., Delory, G. T., Pfaff, R. F. (2014). Dependence of lunar surface charging on solar wind plasma conditions and solar irradiation. *Planetary and Space Science*, 90, 10-27. <http://www.scopus.com/inward/record.url?eid=2-s2.0->

- 84891834266&partnerID=40&md5=8aa7a9797200615c8af368dbced0da4e
67. \* Halekas, J. S., Poppe, A. R., McFadden, J. P., Angelopoulos, V., Glassmeier, K. H., Brain, D. A. (2014). Evidence for small-scale collisionless shocks at the Moon from ARTEMIS. *Geophysical Research Letters*, 41(21), 7436-7443. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84912080035&partnerID=40&md5=82525b1279ee3918a2b21170d7fe445f>
68. \* Harada, Y., Halekas, J. S., Poppe, A. R., Kurita, S., McFadden, J. P. (2014). Extended lunar precursor regions: Electron-wave interaction. *Journal of Geophysical Research: Space Physics*, 119(11), 9160-9173. <http://dx.doi.org/10.1002/2014JA020618>
69. \*\*\* Zhou, X. Z., Angelopoulos, V., Poppe, A. R., Halekas, J. S., Khurana, K. K., Kivelson, M. G., Fatemi, S., Holmström, M. (2014). Lunar dayside current in the terrestrial lobe: ARTEMIS observations. *Journal of Geophysical Research: Space Physics*, 119(5), 3381-3391. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84902438105&partnerID=40&md5=e862262d985e9896aeaf3a26209dd285>
70. \* Halekas, J. S., Poppe, A. R., McFadden, J. P. (2014). The effects of solar wind velocity distributions on the refilling of the lunar wake: ARTEMIS observations and comparisons to one-dimensional theory. *Journal of Geophysical Research: Space Physics*, 119(7), 5133-5149. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84906230264&partnerID=40&md5=44d6f978a31a1bdf2fddf04b79622bde>
71. \* Harada, Y., Machida, S., Halekas, J. S., Poppe, A. R., McFadden, J. P. (2013). ARTEMIS observations of lunar dayside plasma in the terrestrial magnetotail lobe. *Journal of Geophysical Research: Space Physics*, 118(6), 3042-3054. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84883116210&partnerID=40&md5=c70da9cece6f5f12acfd36500165bcc8>
72. \* Poppe, A. R., Samad, R., Halekas, J. S., Sarantos, M., Delory, G. T., Farrell, W. M., Angelopoulos, V., McFadden, J. P. (2013). ARTEMIS observations of lunar pick-up ions in the terrestrial magnetotail lobes. *Geophysical Research Letters*, 39(17). <http://www.scopus.com/inward/record.url?eid=2-s2.0-84876794109&partnerID=40&md5=5329205824ae5dda91877ea0a06d92ec>
73. \* Zhou, X. Z., Angelopoulos, V., Poppe, A. R., Halekas, J. S. (2013). ARTEMIS observations of lunar pickup ions: Mass constraints on ion species. *Journal of Geophysical Research: Planets*, 118(9), 1766-1774. <http://dx.doi.org/10.1002/jgre.20125>
74. \* Poppe, A. R., Halekas, J. S., Samad, R., Sarantos, M., Delory, G. T. (2013). Model-based constraints on the lunar exosphere derived from ARTEMIS pickup ion observations in the terrestrial magnetotail. *Journal of Geophysical Research E: Planets*, 118(5), 1135-1147. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84882794887&partnerID=40&md5=7d15b9abef33c52b2aa8a9b3740e285e>
75. \*\*\*\* Farrell, W. M., Hurley, D. M., Hodges, R. R., Killen, R. M., Halekas, J. S., Zimmerman, M. I., Delory, G. T. (2013). Redistribution of lunar polar water to mid-latitudes and its role in forming an OH veneer. *Planetary and Space Science*, 89, 15-20. <http://www.sciencedirect.com/science/article/pii/S0032063313001268>
76. \* Halekas, J. S., Poppe, A. R., McFadden, J. P., Glassmeier, K. H. (2013). The effects of reflected protons on the plasma environment of the moon for parallel interplanetary magnetic fields. *Geophysical Research Letters*, 40(17), 4544-4548. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84883567899&partnerID=40&md5=41bef415d6e0c86bbc8a3e1dcad1b1bd>
77. \*\*\* Farrell, W. M., Poppe, A. R., Zimmerman, M. I., Halekas, J. S., Delory, G. T., Killen, R. M. (2013). The lunar photoelectron sheath: A change in trapping efficiency during a solar storm. *Journal of Geophysical Research E: Planets*, 118(5), 1114-1122. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84882738097&partnerID=40&md5=6b9365a6484e7ecbf54a7ec754ca848d>
78. \* Poppe, A. R., Halekas, J. S., Sarantos, M., Delory, G. T. (2013). The self-sputtered contribution to the lunar exosphere. *Journal of Geophysical Research: Planets*, 118(9), 1934-1944. <http://dx.doi.org/10.1002/jgre.20148>
79. \*\*\* Lillis, R. J., Robbins, S., Manga, M., Halekas, J. S., Frey, H. V. (2013). Time history of the Martian dynamo from crater magnetic field analysis. *Journal of Geophysical Research E: Planets*, 118(7), 1488-1511. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84882784894&partnerID=40&md5=fa59d93a413e9f86f909bd7b061f30eb>
80. \* Halekas, J. S., Poppe, A. R., Delory, G. T., Sarantos, M., McFadden, J. P. (2013). Using ARTEMIS pickup ion observations to place constraints on the lunar atmosphere. *Journal of Geophysical Research E: Planets*, 118(1), 81-88. <http://www.scopus.com/inward/record.url?eid=2-s2.0->

81. [84879519140&partnerID=40&md5=1a02b10d88a148e8e625a9690e01edc9](http://www.scopus.com/inward/record.url?eid=2-s2.0-84879519140&partnerID=40&md5=1a02b10d88a148e8e625a9690e01edc9)  
 \*\*\* Eastwood, J. P., Videira, J. J. H., Brain, D. A., Halekas, J. S. (2012). A chain of magnetic flux ropes in the magnetotail of Mars. *Geophysical Research Letters*, 39(3).  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84856717650&partnerID=40&md5=f69ea11faf47b1cb2ed1889933412c45>
82. \* Poppe, A. R., Halekas, J. S., Delory, G. T., Farrell, W. M., Angelopoulos, V., McFadden, J. P., Bonnell, J. W., Ergun, R. E. (2012). A comparison of ARTEMIS observations and particle-in-cell modeling of the lunar photoelectron sheath in the terrestrial magnetotail. *Geophysical Research Letters*, 39(1).  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84855409133&partnerID=40&md5=96484da41184b38583dad87bdf507cb1>
83. \*\*\* Tao, J. B., Ergun, R. E., Newman, D. L., Halekas, J. S., Andersson, L., Angelopoulos, V., Bonnell, J. W., McFadden, J. P., Cully, C. M., Auster, H. U., Glassmeier, K. H., Larson, D. E., Baumjohann, W., Goldman, M. V. (2012). Kinetic instabilities in the lunar wake: ARTEMIS observations. *Journal of Geophysical Research: Space Physics*, 117(3). <http://www.scopus.com/inward/record.url?eid=2-s2.0-84859393593&partnerID=40&md5=7adeb5f71f5f9872b23dda13e6fdffd0>
84. \* Halekas, J. S., Poppe, A. R., Delory, G. T., Sarantos, M., Farrell, W. M., Angelopoulos, V., McFadden, J. P. (2012). Lunar pickup ions observed by ARTEMIS: Spatial and temporal distribution and constraints on species and source locations. *Journal of Geophysical Research E: Planets*, 117(6).  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84863476692&partnerID=40&md5=0a19fb00cd89a0356f165fd794e613d5>
85. \* Halekas, J. S., Poppe, A. R., Farrell, W. M., Delory, G. T., Angelopoulos, V., McFadden, J. P., Bonnell, J. W., Glassmeier, K. H., Plaschke, F., Roux, A., Ergun, R. E. (2012). Lunar precursor effects in the solar wind and terrestrial magnetosphere. *Journal of Geophysical Research: Space Physics*, 117(5).  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84861314635&partnerID=40&md5=54d33a17d388f5159b3756051e69d83a>
86. \*\*\* Carley, R. A., Whaler, K. A., Purucker, M. E., Halekas, J. S. (2012). Magnetization of the lunar crust. *Journal of Geophysical Research E: Planets*, 117(8). <http://www.scopus.com/inward/record.url?eid=2-s2.0-84864863797&partnerID=40&md5=15f17bf03768baaaae7fe0801ed8fa54>
87. \*\*\* Fillingim, M. O., Lillis, R. J., England, S. L., Peticolas, L. M., Brain, D. A., Halekas, J. S., Paty, C., Lummerzheim, D., Bougher, S. W. (2012). On wind-driven electrojets at magnetic cusps in the nightside ionosphere of Mars. *Earth, Planets and Space*, 64(2), 93-103.  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84876365673&partnerID=40&md5=43e22472685390d9ae37f1deacc403b3>
88. \* Poppe, A. R., Halekas, J. S., Delory, G. T., Farrell, W. M. (2012). Particle-in-cell simulations of the solar wind interaction with lunar crustal magnetic anomalies: Magnetic cusp regions. *Journal of Geophysical Research: Space Physics*, 117(9). <http://www.scopus.com/inward/record.url?eid=2-s2.0-84866988062&partnerID=40&md5=50f1a844b4c6d2f5aa7dc3a0355309ff>
89. \* Halekas, J. S., Poppe, A., Delory, G. T., Farrell, W. M., Horányi, M. (2012). Solar wind electron interaction with the dayside lunar surface and crustal magnetic fields: Evidence for precursor effects. *Earth, Planets and Space*, 64(2), 73-82. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84855390723&partnerID=40&md5=684f945a261e7d73766da42f65154690>
90. \* Farrell, W. M., Halekas, J. S., Killen, R. M., Delory, G. T., Gross, N., Bleacher, L. V., Krauss-Varben, D., Travnicek, P., Hurley, D., Stubbs, T. J., Zimmerman, M. I., Jackson, T. L. (2012). Solar-Storm/Lunar Atmosphere Model (SSLAM): An overview of the effort and description of the driving storm environment. *Journal of Geophysical Research E: Planets*, 117(10).  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-84865500587&partnerID=40&md5=09a535df2c6c8bdd423b0842b593e5a5>
91. \*\*\* Briggs, J. A., Brain, D. A., Cartwright, M. L., Eastwood, J. P., Halekas, J. S. (2011). A statistical study of flux ropes in the Martian magnetosphere. *Planetary and Space Science*, 59(13), 1498-1505.  
<http://www.scopus.com/inward/record.url?eid=2-s2.0-80052848147&partnerID=40&md5=713cc640014eab03003392b493a6e3d9>
92. \*\* Sibeck, D. G., Angelopoulos, V., Brain, D. A., Delory, G. T., Eastwood, J. P., Farrell, W. M., Grimm, R. E., Halekas, J. S., Hasegawa, H., Hellinger, P., Khurana, K. K., Lillis, R. J., Øieroset, M., Phan, T. D., Raeder, J., Russell, C. T., Schriver, D., Slavin, J. A., Travnicek, P. M., Weygand, J. M. (2011). ARTEMIS science objectives. *Space Science Reviews*, 165(1-4), 59-91.  
<http://www.scopus.com/inward/record.url?eid=2-s2.0->

- 84859897416&partnerID=40&md5=9f16dcb7fec0fa0517b2324bcb4d0fdc
93. \*\*\*\* Jackson, T. L., Farrell, W. M., Killen, R. M., Delory, G. T., Halekas, J. S., Stubbs, T. J. (2011). Engineering notes: Discharging of roving objects in the lunar polar regions. *Journal of Spacecraft and Rockets*, 48(4), 700-703. <http://www.scopus.com/inward/record.url?eid=2-s2.0-79961064112&partnerID=40&md5=dd5cb489f1f0052522ad204d89ef1d63>
  94. \*\* Wiehle, S., Plaschke, F., Motschmann, U., Glassmeier, K. H., Auster, H. U., Angelopoulos, V., Mueller, J., Kriegel, H., Georgescu, E., Halekas, J., Sibeck, D. G., McFadden, J. P. (2011). First lunar wake passage of ARTEMIS: Discrimination of wake effects and solar wind fluctuations by 3D hybrid simulations. *Planetary and Space Science*, 59(8), 661-671. <http://www.scopus.com/inward/record.url?eid=2-s2.0-79955478461&partnerID=40&md5=76d58cb5e2588ecf6d28ac5eb821e89b>
  95. \* Halekas, J. S., Delory, G. T., Farrell, W. M., Angelopoulos, V., McFadden, J. P., Bonnell, J. W., Fillingim, M. O., Plaschke, F. (2011). First remote measurements of lunar surface charging from ARTEMIS: Evidence for nonmonotonic sheath potentials above the dayside surface. *Journal of Geophysical Research: Space Physics*, 116(7). <http://www.scopus.com/inward/record.url?eid=2-s2.0-79961194806&partnerID=40&md5=2ec6becee1fa182ef26e4af961b46f08>
  96. \* Halekas, J. S., Angelopoulos, V., Sibeck, D. G., Khurana, K. K., Russell, C. T., Delory, G. T., Farrell, W. M., McFadden, J. P., Bonnell, J. W., Larson, D., Ergun, R. E., Plaschke, F., Glassmeier, K. H. (2011). First results from ARTEMIS, a new two-spacecraft lunar mission: Counter-streaming plasma populations in the lunar wake. *Space Science Reviews*, 165(1-4), 93-107. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84859885799&partnerID=40&md5=59bd6920494760586f3a4e6a95b06ba4>
  97. \*\*\* Louzada, K. L., Stewart, S. T., Weiss, B. P., Gattacceca, J., Lillis, R. J., Halekas, J. S. (2011). Impact demagnetization of the Martian crust: Current knowledge and future directions. *Earth and Planetary Science Letters*, 305(3-4), 257-269. <http://www.scopus.com/inward/record.url?eid=2-s2.0-79955119591&partnerID=40&md5=73a6f2888ed3e0a7462c733dc364a182>
  98. \* Halekas, J. S., Brain, D. A., Eastwood, J. P. (2011). Large-amplitude compressive "sawtooth" magnetic field oscillations in the Martian magnetosphere. *Journal of Geophysical Research: Space Physics*, 116(7), 1-13. <http://www.scopus.com/inward/record.url?eid=2-s2.0-79960883042&partnerID=40&md5=6b8c0d8e954dcec66867d5d6205f18d9>
  99. \*\*\* Collier, M. R., Kent Hills, H., Stubbs, T. J., Halekas, J. S., Delory, G. T., Espley, J., Farrell, W. M., Freeman, J. W., Vondrak, R. (2011). Lunar surface electric potential changes associated with traversals through the Earth's foreshock. *Planetary and Space Science*, 59(14), 1727-1743. <http://www.scopus.com/inward/record.url?eid=2-s2.0-80053636600&partnerID=40&md5=016d8382f4ba180e3b53e69e7216c85e>
  100. \* Poppe, A., Halekas, J. S., Horányi, M. (2011). Negative potentials above the day-side lunar surface in the terrestrial plasma sheet: Evidence of non-monotonic potentials. *Geophysical Research Letters*, 38(2). <http://www.scopus.com/inward/record.url?eid=2-s2.0-79551576027&partnerID=40&md5=f8a45b63872bb8f34612b353f8bb915b>
  101. \* Halekas, J. S., Saito, Y., Delory, G. T., Farrell, W. M. (2011). New views of the lunar plasma environment. *Planetary and Space Science*, 59(14), 1681-1694. <http://www.scopus.com/inward/record.url?eid=2-s2.0-80053631944&partnerID=40&md5=3a8e275cec8aebf91b0711922ca3b76d>
  102. \*\*\* Stubbs, T. J., Glenar, D. A., Farrell, W. M., Vondrak, R. R., Collier, M. R., Halekas, J. S., Delory, G. T. (2011). On the role of dust in the lunar ionosphere. *Planetary and Space Science*, 59(13), 1659-1664. <http://www.scopus.com/inward/record.url?eid=2-s2.0-80052867709&partnerID=40&md5=4250a0f71cd5e7a856e2c0343df54d5b>
  103. \*\*\* Farrell, W. M., Halekas, J. S., Stubbs, T. J., Delory, G. T., Killen, R. M., Hartle, R. E., Collier, M. R. (2011). Regarding the possible generation of a lunar nightside exo-ionosphere. *Icarus*, 216(1), 169-172. <http://www.scopus.com/inward/record.url?eid=2-s2.0-80053355906&partnerID=40&md5=0789b4e3d6e4cddbffd77480d0e838e00>
  104. \*\*\* Zimmerman, M. I., Farrell, W. M., Stubbs, T. J., Halekas, J. S., Jackson, T. L. (2011). Solar wind access to lunar polar craters: Feedback between surface charging and plasma expansion. *Geophysical Research Letters*, 38(19). <http://www.scopus.com/inward/record.url?eid=2-s2.0-80054000445&partnerID=40&md5=06960c2751b3d41d714d675a2ff91f54>
  105. Halekas, J.S., Bale, S.D., Mitchell, D.L., Lin, R.P.!!! (2011). Correction to Electrons and magnetic fields

- in the lunar plasma wake. *Journal of Geophysical Research (Space Physics)*, 116, A07228.
106. \*\*\* Brain, D., Barabash, S., Boesswetter, A., Bougher, S., Brecht, S., Chanteur, G., Hurley, D., Dubinin, E., Fang, X., Fraenz, M., Halekas, J., Harnett, E., Holmstrom, M., Kallio, E., Lammer, H., Ledvina, S., Liemohn, M., Liu, K., Luhmann, J., Ma, Y., Modolo, R., Nagy, A., Motschmann, U., Nilsson, H., Shinagawa, H., Simon, S., Terada, N. (2010). A comparison of global models for the solar wind interaction with Mars. *Icarus*, 206(1), 139-151. <http://www.scopus.com/inward/record.url?eid=2-s2.0-76149118396&partnerID=40&md5=0c11d0c842e44fafdd0a0dae191f1c79>
107. \*\*\* Farrell, W. M., Stubbs, T. J., Halekas, J. S., Killen, R. M., Delory, G. T., Collier, M. R., Vondrak, R. R. (2010). Anticipated electrical environment within permanently shadowed lunar craters. *Journal of Geophysical Research: Planets*, 115(E3), n/a-n/a. <http://dx.doi.org/10.1029/2009JE003464>
108. \*\*\* Brain, D. A., Baker, A. H., Briggs, J., Eastwood, J. P., Halekas, J. S., Phan, T. D. (2010). Episodic detachment of Martian crustal magnetic fields leading to bulk atmospheric plasma escape. *Geophysical Research Letters*, 37(14). <http://www.scopus.com/inward/record.url?eid=2-s2.0-77955282844&partnerID=40&md5=e61c76165076fb38521324f0f4135ab7>
109. \* Halekas, J. S., Brain, D. A. (2010). Global distribution, structure, and solar wind control of low altitude current sheets at Mars. *Icarus*, 206(1), 64-73. <http://www.scopus.com/inward/record.url?eid=2-s2.0-75949097037&partnerID=40&md5=f757f2e75616b13dd03142409f62677a>
110. \* Halekas, J. S., Lillis, R. J., Lin, R. P., Manga, M., Purucker, M. E., Carley, R. A. (2010). How strong are lunar crustal magnetic fields at the surface?: Considerations from a reexamination of the electron reflectometry technique. *Journal of Geophysical Research: Planets*, 115(E3), n/a-n/a. <http://dx.doi.org/10.1029/2009JE003516>
111. \*\*\* Fillingim, M. O., Peticolas, L. M., Lillis, R. J., Brain, D. A., Halekas, J. S., Lummerzheim, D., Bougher, S. W. (2010). Localized ionization patches in the nighttime ionosphere of Mars and their electrodynamic consequences. *Icarus*, 206(1), 112-119. <http://www.scopus.com/inward/record.url?eid=2-s2.0-75949125678&partnerID=40&md5=a343ea7a5344f058bdf10ec71679896>
112. \*\*\* Øieroset, M., Brain, D. A., Simpson, E., Mitchell, D. L., Phan, T. D., Halekas, J. S., Lin, R. P., Acuña, M. H. (2010). Search for Phobos and Deimos gas/dust tori using in situ observations from Mars Global Surveyor MAG/ER. *Icarus*, 206(1), 189-198. <http://www.scopus.com/inward/record.url?eid=2-s2.0-75949090624&partnerID=40&md5=c22862fa1fab3cb8f3a43584fc373f75>
113. \*\*\* Lillis, R. J., Purucker, M. E., Halekas, J. S., Louzada, K. L., Stewart-Mukhopadhyay, S. T., Manga, M., Frey, H. V. (2010). Study of impact demagnetization at Mars using Monte Carlo modeling and multiple altitude data. *Journal of Geophysical Research E: Planets*, 115(7). <http://www.scopus.com/inward/record.url?eid=2-s2.0-77955645234&partnerID=40&md5=5aa71461c741491fe85069100d1e6b79>
114. \* Halekas, J.S., Eastwood, J.P., Brain, D.A., Phan, T.D., Øieroset, M., Lin, R.P.!!! (2009). In situ observations of reconnection Hall magnetic fields at Mars: Evidence for ion diffusion region encounters. *Journal of Geophysical Research (Space Physics)*, 114(A13), A11204.
115. \* Halekas, J.S., Delory, G.T., Lin, R.P., Stubbs, T.J., Farrell, W.M. (2009). Lunar surface charging during solar energetic particle events: Measurement and prediction. *Journal of Geophysical Research (Space Physics)*, 114, A05110.
116. \* Halekas, J.S., Delory, G.T., Lin, R.P., Stubbs, T.J., Farrell, W.M. (2009). Lunar Prospector measurements of secondary electron emission from lunar regolith. *Planetary Space Science*, 57, 78-82.
117. \* Halekas, J.S., Brain, D.A., Lin, R.P., Luhmann, J.G., Mitchell, D.L. (2008). Distribution and variability of accelerated electrons at Mars. *Advances in Space Research*, 41, 1347-1352.
118. \* Halekas, J.S., Brain, D.A., Lin, R.P., Mitchell, D.L. (2008). Solar wind interaction with lunar crustal magnetic anomalies. *Advances in Space Research*, 41, 1319-1324.
119. \*\*\* Farrell, W.M., Stubbs, T.J., Delory, G.T., Vondrak, R.R., Collier, M.R., Halekas, J.S., Lin, R.P. (2008). Concerning the dissipation of electrically charged objects in the shadowed lunar polar regions., 35, L19104.
120. \* Halekas, J.S., Delory, G.T., Lin, R.P., Stubbs, T.J., Farrell, W.M. (2008). Lunar Prospector observations of the electrostatic potential of the lunar surface and its response to incident currents. *Journal of Geophysical Research (Space Physics)*, 113, A09102.
121. \*\*\* Leblanc, F., Witasse, O., Lilensten, J., Frahm, R.A., Safaenili, A., Brain, D.A., Mouginot, J., Nilsson, H., Futaana, Y., Halekas, J., Holmström, M., Bertaux, J.L., Winningham, J.D., Kofman, W., Lundin, R. (2008). Observations of aurorae by SPICAM ultraviolet spectrograph on board Mars Express: Simultaneous ASPERA-3 and MARSIS measurements. *Journal of Geophysical Research (Space*

- Physics*), 113, A08311.
122. \* Halekas, J.S., Delory, G.T., Brain, D.A., Lin, R.P., Mitchell, D.L. (2008). Density cavity observed over a strong lunar crustal magnetic anomaly in the solar wind: A mini-magnetosphere? *Planetary Space Science*, 56, 941-946.
  123. \* Mitchell, D.L., Halekas, J.S., Lin, R.P., Frey, S., Hood, L.L., Acuna, M.H., Binder, A. (2008). Global mapping of lunar crustal magnetic fields by Lunar Prospector., 194, 401-409.
  124. \*\*\* Farrell, W.M., Stubbs, T.J., Halekas, J.S., Delory, G.T., Collier, M.R., Vondrak, R.R., Lin, R.P. (2008). Loss of solar wind plasma neutrality and affect on surface potentials near the lunar terminator and shadowed polar regions., 35, L05105.
  125. \*\*\* Eastwood, J.P., Brain, D.A., Halekas, J.S., Drake, J.F., Phan, T.D., Øieroset, M., Mitchell, D.L., Lin, R.P., Acuna, M. (2008). Evidence for collisionless magnetic reconnection at Mars., 35, L02106.
  126. \*\*\* Brain, D.A., Lillis, R.J., Mitchell, D.L., Halekas, J.S., Lin, R.P. (2007). Electron pitch angle distributions as indicators of magnetic field topology near Mars. *Journal of Geophysical Research (Space Physics)*, 112, A09201.
  127. \*\*\* Farrell, W.M., Stubbs, T.J., Vondrak, R.R., Delory, G.T., Halekas, J.S. (2007). Complex electric fields near the lunar terminator: The near-surface wake and accelerated dust., 34, L14201.
  128. \*\*\* Fillingim, M.Ö., Peticolas, L.M., Lillis, R.J., Brain, D.A., Halekas, J.S., Mitchell, D.L., Lin, R.P., Lummerzheim, D., Bougher, S.W., Kirchner, D.L. (2007). Model calculations of electron precipitation induced ionization patches on the nightside of Mars., 34, L12101.
  129. \* Halekas, J.S., Delory, G.T., Brain, D.A., Lin, R.P., Fillingim, M.Ö., Lee, C.Ö., Mewaldt, R.A., Stubbs, T.J., Farrell, W.M., Hudson, M.K. (2007). Extreme lunar surface charging during solar energetic particle events., 34, L02111.
  130. \*\*\* Stubbs, T.J., Halekas, J.S., Farrell, W.M., Vondrak, R.R. (2007). Lunar Surface Charging: A Global Perspective Using Lunar Prospector Data. *Dust in Planetary Systems*, 643, 181-184.
  131. \* Halekas, J.S., Brain, D.A., Mitchell, D.L., Lin, R.P. (2006). Whistler waves observed near lunar crustal magnetic sources., 33, L22104.
  132. \*\*\* Leblanc, F., Witasse, O., Winningham, J., Brain, D., Liliensten, J., Bletly, P.-L., Frahm, R.A., Halekas, J.S., Bertaux, J.L. (2006). Origins of the Martian aurora observed by Spectroscopy for Investigation of Characteristics of the Atmosphere of Mars (SPICAM) on board Mars Express. *Journal of Geophysical Research (Space Physics)*, 111, A09313.
  133. \* Halekas, J.S., Brain, D.A., Lillis, R.J., Fillingim, M.Ö., Mitchell, D.L., Lin, R.P. (2006). Current sheets at low altitudes in the Martian magnetotail., 33, L13101.
  134. \*\*\* Brain, D.A., Mitchell, D.L., Halekas, J.S. (2006). The magnetic field draping direction at Mars from April 1999 through August 2004., 182, 464-473.
  135. \* Halekas, J.S., Brain, D.A., Mitchell, D.L., Lin, R.P., Harrison, L. (2006). On the occurrence of magnetic enhancements caused by solar wind interaction with lunar crustal fields., 33, L08106.
  136. \*\* Brain, D.A., Halekas, J.S., Peticolas, L.M., Lin, R.P., Luhmann, J.G., Mitchell, D.L., Delory, G.T., Bougher, S.W., Acuna, M.H., Rème, H. (2006). On the origin of aurorae on Mars., 33, L01201.
  137. \*\*\* Brain, D.A., Halekas, J.S., Lillis, R., Mitchell, D.L., Lin, R.P., Crider, D.H. (2005). Variability of the altitude of the Martian sheath., 32, L18203.
  138. \* Halekas, J.S., Bale, S.D., Mitchell, D.L., Lin, R.P. (2005). Electrons and magnetic fields in the lunar plasma wake. *Journal of Geophysical Research (Space Physics)*, 110, A07222.
  139. \* Halekas, J.S., Lin, R.P., Mitchell, D.L. (2005). Large negative lunar surface potentials in sunlight and shadow., 32, L09102.
  140. \* Halekas, J.S., Lin, R.P., Mitchell, D.L. (2003). Inferring the scale height of the lunar nightside double layer., 30, 2117.
  141. \*\*\* Richmond, N.C., Hood, L.L., Halekas, J.S., Mitchell, D.L., Lin, R.P., Acuna, M., Binder, A.B. (2003). Correlation of a strong lunar magnetic anomaly with a high-albedo region of the Descartes mountains., 30, 48-1.
  142. \* Halekas, J.S., Lin, R.P., Mitchell, D.L. (2003). Magnetic fields of lunar multi-ring impact basins. *Meteoritics and Planetary Science*, 38, 565-578.
  143. \* Halekas, J.S., Mitchell, D.L., Lin, R.P., Hood, L.L., Acuna, M.H., Binder, A.B. (2002). Demagnetization signatures of lunar impact craters., 29, 23-1.
  144. \* Halekas, J.S., Mitchell, D.L., Lin, R.P., Hood, L.L., Acuna, M.H., Binder, A.B. (2002). Evidence for negative charging of the lunar surface in shadow., 29, 77-1.
  145. \*\*\* Hood, L.L., Zakharian, A., Halekas, J., Mitchell, D.L., Lin, R.P., Acuna, M.H., Binder, A.B. (2001).

- Initial mapping and interpretation of lunar crustal magnetic anomalies using Lunar Prospector magnetometer data., *106*, 27825-27840.
146. \* Halekas, J.S., Mitchell, D.L., Lin, R.P., Frey, S., Hood, L.L., Acuna, M.H., Binder, A.B. (2001). Mapping of crustal magnetic anomalies on the lunar near side by the Lunar Prospector electron reflectometer., *106*, 27841-27852.
147. \*\* Whipple, E.C., Starr, D.L., Halekas, J.S., Scudder, J.D., Holdaway, R.D., Faden, J.B., Puhl-Quinn, P., Maynard, N.C., Russell, C.T. (1999). Magnetospheric electric fields from ion data., *26*, 1561-1564.
148. \*\*\* Whipple, E.C., Halekas, J.S., Scudder, J.D., Paterson, W.R., Frank, L.A., Sheldon, R.B., Maynard, N.C., Weimer, D.R., Russell, C.T., Tsuruda, K., Hayakawa, H., Yamamoto, T. (1998). Identification of magnetospheric particles that travel between spacecraft and their use to help obtain magnetospheric potential distributions., *103*, 93-102.

### **Book Chapters**

1. \* Halekas, J. S., Brain, D. A., Holmstrom, M. (2015). Moon's plasma wake. *Magnetotails in the Solar System* (pp. 149-168). Washington, D.C.: American Geophysical Union.
2. \*\* Brain, D., Halekas, J. S. (2012). Aurora in Martian mini magnetospheres. *Auroral Phenomenology and Magnetospheric Processes: Earth and Other Planets* (vol. 197, pp. 123-132). Washington D.C.: American Geophysical Union. <http://www.scopus.com/inward/record.url?eid=2-s2.0-84899510242&partnerID=40&md5=178e0cf3b83971af500b370d8cc777c6>

### **Ph.D. Thesis**

1. Halekas, J.S. (2003). *The origins of lunar crustal magnetic fields*. University of California, Berkeley.

### **Areas of Research Interest**

Atmospheric escape from Mars and other unmagnetized bodies  
 Basic processes and sources of instabilities in plasma wakes  
 Charged particle measurement techniques  
 Composition and dynamics of tenuous exospheres  
 Magnetic reconnection  
 Near-surface plasma sheath above the surface of airless bodies  
 Planetary magnetism  
 Plasma interactions with sub-ion inertial scale magnetic fields  
 Plasma Physics  
 Solar wind kinetic physics

### **Grants and Contracts**

#### **Funded**

- Mar 2017 - Feb 2020 *Hydrogen Precipitation in Planetary Atmospheres*  
 Funded by NASA Solar System Workings Program (via subcontract to U.C. Berkeley). Award amount: (\$135,730.00). Investigator/s R Lillis (Principal), Jasper S Halekas (Co-Investigator).
- Mar 2015 - Mar 2019 *Dynamic Response of the Environment at Asteroids, the Moon, and the moons of Mars (DREAM^2), NASA SSERVI*  
 Funded by NASA/GSFC. Award amount: (\$363,000.00). Investigator/s Jasper S Halekas (Principal).
- Feb 2016 - Feb 2019 *BIFOCAL: A next-generation electron instrument for solar wind monitoring and high phase space resolution*  
 Funded by NASA Heliophysics Technology and Instrument Development Program. Award amount: (\$608,853.00). Investigator/s Jasper S Halekas (Principal).
- Oct 2016 - Sep 2018 *MAVEN/SWIA Extended Mission 2*  
 Funded by University of California, Berkeley (prime sponsor is NASA). Investigator/s Jasper S Halekas (Principal).
- Aug 2014 - Aug 2018 *SPAN-Electrons - SWEAP Phase C/D*  
 Funded by University of California, Berkeley (prime sponsor is NASA). Award

- amount: (\$167,818.00). Investigator/s Jasper S Halekas (Principal).
- Apr 2015 - Apr 2018 *Investigating the Interaction of Solar Wind Protons with the Moon using ARTEMIS data*  
Funded by NASA Lunar Data Analysis Program (via subcontract to U.C. Berkeley). Award amount: (\$89,964.00). Investigator/s A Poppe (Principal), Jasper S Halekas (Co-Investigator).
- Aug 2014 - Aug 2017 *Start-Up Funding for Jasper Halekas*  
Funded by University of Iowa Start-Up. Award amount: (\$509,986.00).
- Dec 2015 - Dec 2016 *HALO NNX16AD03G*  
Funded by NASA/GSFC. Award amount: (\$50,000.00). Investigator/s Jasper S Halekas (Principal).
- Oct 2015 - Sep 2016 *MAVEN/SWIA Extended Mission*  
Funded by University of California, Berkeley (prime sponsor is NASA). Award amount: (\$210,000.00). Investigator/s Jasper S Halekas (Principal).
- Aug 2014 - Mar 2016 *Solar Wind Ion Analyzer (SWIA) - MAVEN Phase E*  
Funded by University of Colorado (prime sponsor is NASA). Award amount: (\$127,437.00). Investigator/s Jasper S Halekas (Principal).
- Sep 2014 - Sep 2015 *Quantifying the Links Between the Space Plasma Environment and the Lunar Dusty Atmosphere: A Virtual Plasma Instrument for LADEE NNX14AR24G*  
Funded by NASA. Award amount: (\$152,815.76). Investigator/s Jasper S Halekas (Principal).

**Currently Under Review**

- May 2017 - Mar 2018 *TRACERS*  
Funded by NASA Heliophysics Small Explorers. Investigator/s Jasper S Halekas (Co-Investigator).

**Not Funded**

- May 2015 - Apr 2034 *Europa Plasma Environment Experiment*  
Funded by NASA Europa Instrument Investigation (via subcontract to PI institution U.C. Berkeley). Investigator/s S Bale (Principal), Jasper S Halekas (Co-Investigator).
- Feb 2017 - Jun 2020 *Volatile Ion Composition Experiment*  
Funded by NASA (via subcontract to U.C. Berkeley). Investigator/s Jasper S Halekas (Co-Investigator).
- Jul 2017 - Jun 2020 *Pulsed Ion Composition Analyzer*  
Funded by NASA Planetary Instrument Concepts for the Advancement of Solar System Observations. Investigator/s Jasper S Halekas (Principal).
- Jun 2017 - Jun 2020 *Interpretation and Characterization of the ARTEMIS observations of solar wind interactions with the lunar surface, magnetic anomalies, and exosphere*  
Funded by NASA Lunar Data Analysis Program (via subcontract to Space Sciences Institute). Investigator/s Jasper S Halekas (Co-Investigator).
- Mar 2017 - Mar 2020 *Earth, Moon, and Mars: Laboratories for Foreshock Processes*  
Funded by NASA Heliophysics Supporting Research Program. Investigator/s Jasper S Halekas (Principal).
- Jul 2016 - Jun 2019 *ACES-II*  
Funded by NASA Heliophysics Technology and Instrument Development Program. Investigator/s Jasper S Halekas (Co-Investigator), Scott Bounds (Principal).
- Jul 2016 - Jun 2019 *Pulsed Ion Composition Analyzer*  
Funded by NASA Planetary Instrument Concepts for the Advancement of Solar System Observations. Investigator/s Jasper S Halekas (Principal).
- Apr 2016 - Mar 2019 *Identifying the Kinetic Physics of Turbulent Dissipation in the Solar Wind*  
Funded by NASA Heliophysics Supporting Research Program. Investigator/s G Howes (Principal), Jasper S Halekas (Co-Investigator).
- Mar 2016 - Mar 2019 *Earth, Moon, and Mars: Laboratories for Foreshock Processes*  
Funded by NASA Heliophysics Supporting Research Program. Investigator/s

- Jasper S Halekas (Principal).  
 Feb 2016 - Jan 2019 *The Signatures of Landau Damping in the Velocity Distributions of Solar Wind Plasma*  
 Funded by NASA Heliophysics Guest Investigator. Investigator/s G Howes  
 (Principal), Jasper S Halekas (Co-Investigator).  
 May 2015 - May 2018 *Pulsed Ion Composition Analyzer*  
 Funded by NASA Planetary Instrument Concepts for the Advancement of Solar  
 System Observations. Investigator/s Jasper S Halekas (Principal).  
 Apr 2015 - Mar 2018 *The Kinetic Signature of Turbulent Dissipation in the Solar Wind*  
 Funded by NASA Heliophysics Supporting Research Program. Investigator/s G  
 Howes (Principal), Jasper S Halekas (Co-Investigator).  
 Apr 2017 - Sep 2017 *PRISM: Phobos Regolith Ion Sample Mission*  
 Funded by NASA PSDS3 (via subcontract to NASA Goddard Spaceflight  
 Center). Investigator/s Jasper S Halekas (Co-Investigator).

## Invited Lectures and Conference Presentations

### Colloquium

#### National

- 2016 Kansas University Physics Colloquium, *A Physics Laboratory in the Sky: Lunar  
 Magnetic Fields*, Lawrence, Kansas, United States Presenters/Authors: Halekas, J S  
 2016 UCLA Earth Planetary and Space Science Colloquium, *Dynamic Mars: First results  
 from MAVEN* Presenters/Authors: Halekas, J S  
 2014 UNH Physics Colloquium, *The lunar wake: A natural plasma physics laboratory*  
 Presenters/Authors: Halekas, J S  
 2014 University of Iowa Physics and Astronomy Colloquium, *The lunar wake: A natural  
 plasma physics laboratory* Presenters/Authors: Halekas, J S  
 2006 Space Sciences Laboratory Colloquium, *Martian Aurora* Presenters/Authors: Halekas,  
 J S

### Oral

#### International

- 2017 Mars Aeronomy Conference, *The Magnetosphere and Space Environment of Mars*,  
 Boulder, Colorado, United States Presenters/Authors: Halekas, Jasper S  
 2016 American Geophysical Union Fall Meeting, *A case study of right hand polarized  
 waves in the lunar plasma environment*, American Geophysical Union, San Francisco,  
 California, United States Presenters/Authors: Halekas, Jasper Student  
 Presenters/Authors: Howard, Stephanie  
 2016 Lunar Exploration Analysis Group, *ARTEMIS Mission Update*, Laurel, Maryland,  
 United States Presenters/Authors: Halekas, Jasper S  
 2016 American Geophysical Union Fall Meeting, *Kinetic Plasma Interactions Between the  
 Solar Wind and Lunar Magnetic Fields*, American Geophysical Union, San Francisco,  
 California, United States Presenters/Authors: Halekas, Jasper S  
 2016 Corsica Lunar Paleomagnetism Workshop, *What can electron reflectometry tell us  
 about lunar magnetism*, Corsica, Italy Presenters/Authors: Halekas, J S  
 2012 39th European Physical Society Conference on Plasma Physics/16th International  
 Congress on Plasma Physics, *Results from the ARTEMIS mission* Presenters/Authors:  
 Halekas, J S  
 2006 COSPAR Meeting, *Comparative mini-magnetospheres: Moon and Mars*, Beijing,  
 China Presenters/Authors: Halekas, J S  
 2006 COSPAR Meeting, *Origin and expected variability of Martian Aurorae*, Beijing,  
 China Presenters/Authors: Halekas, J S

#### National

- 2015 Lunar and Planetary Science Conference, *MAVEN observations of the Martian  
 magnetosphere and its response to solar wind drivers*, Corsica, Italy  
 Presenters/Authors: Halekas, J S  
 2013 Lunar Science Forum, *ARTEMIS: Summary of new science at the Moon*  
 Presenters/Authors: Halekas, J S  
 2012 Dust, Atmosphere and Plasma: Moon and Small Bodies, *ARTEMIS and the Moon's*

- 2012 *Sphere of Influence* Presenters/Authors: Halekas, J S  
Cluster-THEMIS Workshop, *ARTEMIS observations of pickup ions around the Moon*  
Presenters/Authors: Halekas, J S
- 2012 LEAG, *ARTEMIS: Results from the first year* Presenters/Authors: Halekas, J S
- 2012 Lunar Science Forum, *First results from the ARTEMIS mission* Presenters/Authors:  
Halekas, J S
- 2010 Lunar Dust Atmosphere and Plasma Workshop, *Lunar plasma and exospheric science  
from ARTEMIS* Presenters/Authors: Halekas, J S
- 2007 Workshop on science associated with the lunar exploration architecture, *Determining  
lunar crustal magnetic fields and their origin* Presenters/Authors: Halekas, J S
- 2007 American Geophysical Union Spring Meeting, *Global vs. local mini-magnetospheres:  
Differences and similarities* Presenters/Authors: Halekas, J S
- 2005 American Geophysical Union Fall Meeting, *Solar wind interaction with the lunar  
environment* Presenters/Authors: Halekas, J S

**Poster****International**

- 2016 American Geophysical Union Fall Meeting, *Bifocal: A multi-functional next-  
generation electrostatic analyzer*, American Geophysical Union, San Francisco,  
California, United States Presenters/Authors: Halekas, Jasper Student  
Presenters/Authors: Andreone, Gian

**Seminar****International**

- 2014 Lunar Workshop, *Plasma interactions with small-scale magnetic fields: Current  
understanding and unsolved problems*, Kyung-Hee University Presenters/Authors:  
Halekas, J S
- 2010 Center for Space Science and Applied Research Seminar, *Fundamental plasma  
physics in the Martian magnetotail and boundary layer*, Beijing, China  
Presenters/Authors: Halekas, J S
- 2010 Center for Space Science and Applied Research Seminar, *The Lunar Wake: Current  
understanding and first results from ARTEMIS*, Beijing, China Presenters/Authors:  
Halekas, J S
- 2009 JAXA/ISAS Seminar, *Lunar electric fields: The view from Lunar Prospector*, Tokyo,  
Japan Presenters/Authors: Halekas, J S

**National**

- 2016 Minnesota Space Physics Seminar, *Dynamic Mars: First results from MAVEN*  
Presenters/Authors: Halekas, J S
- 2014 NASA Headquarters Brownbag Seminar, *ARTEMIS explores the Lunar Environment*  
Presenters/Authors: Halekas, J S
- 2014 University of Michigan Atmospheric Oceanic and Space Sciences Seminar, *ARTEMIS  
explores the Lunar Environment* Presenters/Authors: Halekas, J S
- 2014 University of Iowa Astronomy and Space Physics Seminar, *Lunar magnetic fields and  
their "shocking" effects on the surfaces and space environment* Presenters/Authors:  
Halekas, J S
- 2014 UNH Space Physics Seminar, *Plasma physics in the Martian magnetosphere: A view  
towards MAVEN* Presenters/Authors: Halekas, J S
- 2014 University of Iowa Plasma Physics Seminar, *Plasma physics in the Martian  
magnetosphere: A view towards MAVEN* Presenters/Authors: Halekas, J S
- 2014 American Physical Society Prairie Section Plenary, *Small but surprising: The curious  
magnetic fields of the Moon* Presenters/Authors: Halekas, J S
- 2013 UCLA Space Physics Seminar, *Ions from the Moon: Sources and implications*  
Presenters/Authors: Halekas, J S
- 2013 U.C. Santa Cruz Earth and Planetary Sciences Seminar, *The tenuous lunar exosphere:  
A view from ARTEMIS on the eve of LADEE* Presenters/Authors: Halekas, J S
- 2012 ARTEMIS Science Working Team, *ARTEMIS observations of pickup ions: Tying  
space plasma data to the surface and exosphere* Presenters/Authors: Halekas, J S
- 2012 Lunar and Planetary Institute Seminar, *First results from ARTEMIS: The Moon's*

	<i>sphere of influence</i> Presenters/Authors: Halekas, J S
2012	NLSI Director's Seminar, <i>Using ARTEMIS observations to connect the space plasma environment to the surface and exosphere</i> Presenters/Authors: Halekas, J S
2011	U.C. Berkeley Space Physics Seminar, <i>Lunar Precursor Effects</i> Presenters/Authors: Halekas, J S
2010	UCLA Earth and Space Sciences Seminar, <i>The lunar plasma wake: Waiting for ARTEMIS</i> Presenters/Authors: Halekas, J S
2009	U.C. Berkeley Space Physics Seminar, <i>Space physics in the dynamic lunar environment</i> Presenters/Authors: Halekas, J S
2009	SETI Institute, <i>The dynamic lunar environment</i> Presenters/Authors: Halekas, J S
2008	University of Washington Earth and Space Sciences Research Seminar, <i>Lunar surface charging: Lunar Prospector Observations</i> Presenters/Authors: Halekas, J S
2008	University of Washington Earth and Space Sciences Seminar, <i>The enigma of lunar magnetism</i> Presenters/Authors: Halekas, J S
2000	CalTech Geological and Planetary Sciences Seminar, <i>Lunar crustal magnetism: New results from Lunar Prospector</i> Presenters/Authors: Halekas, J S
<b>University</b>	
2016	University of Iowa Astronomy and Space Physics Seminar, <i>Blowin' in the wind: First results from the MAVEN mission</i> Presenters/Authors: Halekas, J S
<b>Symposium National</b>	
2011	Bay Area Consortium for Heliophysics Symposium, <i>Evidence for reconnection at Mars</i> Presenters/Authors: Halekas, J S

---

## SERVICE

### Profession

2013 - Present	Lunar Exploration Analysis Group, Executive Committee, Member
2010 - Present	Journal of Geophysical Research - Planets, Editor, Assistant/Co-Editor
2016	AAS, Reviewer, Publications
2016	Geophysical Research Letters, Reviewer, Publications
2016	Journal of Geophysical Research, Reviewer, Publications
2016	NASA, Reviewer, Grant Proposals
2016	Reviewer for HaloSat mission, Member
2015	EPSCOR, Reviewer, Grant Proposals
2015	Geophysical Research Letters, Reviewer, Publications
2015	Icarus, Reviewer, Publications
2015	IEEE Transactions on Plasma Physics, Reviewer, Publications
2015	Journal of Geophysical Research, Reviewer, Publications
2015	NASA, Reviewer, Grant Proposals
2015	Physics of Plasmas, Reviewer, Publications
2015	Swedish National Space Board, Reviewer, Grant Proposals
2015	NASA Living With a Star Review Committee, Chair
2002 - 2014	Reviewer for NASA Data Analysis Programs, Reviewer
2002 - 2014	Reviewer for Various Journals, Reviewer
2011	Critical Design Review Panel for BARREL mission, Member
2011	Earth Planets and Space Special Issue Guest Editor, Editor, Assistant/Co-Editor

### Department

2015 - Present	EO Committee, Member
2016 - 2017	Space Physics Search Committee, Member

### College

2017	Ideation Charrette, Member
------	----------------------------

**Community**

- 2017 Cedar Rapids Lions Club, Invited Lecture
- 2017 Explorers Seminar Series, Invited Lecture
- 2017 Wilton High School, Guest Speaker
- 2016 Sugar Bottom Campground, Guest Speaker
- 2016 Northwest Middle School, Guest Speaker
- 2015 MAVEN Educators, Guest Speaker
- 2015 Sugar Bottom Campground, Guest Speaker
- 2015 Cedar River Amateur Astronomers, Guest Speaker

**Media Contributions**

- 2016 Radio, River to River, National
- 2015 Radio, River to River, State  
Discussed MAVEN first results on radio with Ben Kieffer
- 2015 TV, NASA TV, International  
Participated in televised release of MAVEN results in a science update on NASA TV.
- 2015 TV, Local television, Local  
Conducted interviews for local television stations.
- 2015 TV, Discovery Daily Planet, International  
Conducted interview about MAVEN results for an episode of Discovery Canada Daily Planet.
- 2015 Newspaper, New York Times, International  
Interview with New York Times on MAVEN results
- 2015 Radio, River to River, State  
Discussed Mars on radio with Ben Kieffer
- 2015 Radio, Talk of Iowa, State  
Discussed New Horizons results on radio
- 2015 Radio, River to River, State  
Discussed MAVEN results on radio with Ben Kieffer

**Professional Development Activities**

- 2016 Training/Development Program, Communicating Ideas Workshop, University of Iowa