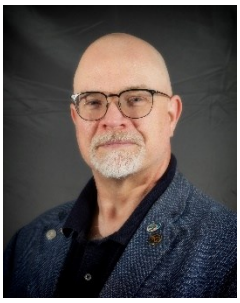
Dr. Jerry W. Manweiler (ORCID)
Senior Scientist – Fundamental Technologies, LLC
2411 Ponderosa Dr, STE A., Lawrence, KS 66046
785-840-0800 • Jerry.Manweiler@FTECS.com



Education:

- PhD Physics, 1997, University of Kansas - Honors
- MS Computational Physics, 1987, University of Kansas
- BS Computer Science, (eq), ~1986, University of Kansas
- BS Physics, 1985, University of Kansas

Professional Summary:

- Senior Scientist and Owner/Manager, Fundamental Technologies, LLC, 1997 – present
- Chief Operating Officer/Chairman of the Board, UmmelGroup International, Inc, 2016 – present
- Referee, NASA Postdoc Proposal (NPP) Fellowship Program, 2017 – present
- Referee, NASA Panel Reviewer, 2020 – present
- Adjunct Industrial Research Professor, University of Kansas, 1997 – present
- Special Graduate Faculty, University of Kansas, Dept. of Physics and Astronomy, 2014 – present
- Lecturer, University of Kansas, Department of Physics and Astronomy, 1999-Present (as needed)
- Post-Doctoral Research, University of Kansas, 1997-1998
- Graduate Research Assistant, University of Kansas, 1986-1987 (MS)/1991-1997(PhD)
- Systems Analyst, The Boeing Company, 1987-1991

Research/Work Experience (Ordered with most recent first):

- Principal Investigator – Lagrange Communications Advanced Realtime Spaceweather (LCARS) Array
- Principal Investigator – FTECS-Quantum Energetic Particle Instrument (FT-QEPD) – (SBIR USAF)
- Principal Investigator – NASA Heliophysics Data Environment Enhancement – Voyager LECP
- Co-Investigator – NASA Voyager Interstellar Mission – LECP instrument
- Co-Investigator – Planetary Data Systems – Planetary Plasma Interactions Sub Node
- Senior Project Manager and Senior Systems Analyst: KDOT Pavement Management System
- Senior Consultant: Kansas Army National Guard
- Data Scientist – NASA Cassini Mission – MIMI instrument
- Co-Investigator – NASA Planetary Data Archiving, Restoration, and Tools – Galileo EPD
- Co-Investigator – NASA Van Allen Probes – RBSPICE Instrument SOC Lead
- Data Scientist – NASA Ulysses Mission – HiSCALE instrument
- Co-Investigator – Virtual Energetic Particle Observatory
- Co-Investigator – Ulysses Resident Archive Services
- Principal Investigator – NASA IMP 8 – Reestablishment of ground processing capability
- Senior Systems Designer – USAF Surgeon General Medical Records Project, through Zeratec, Inc.
- Project consultant and systems designer for Kansas Criminal Justice Information Systems
- Project manager and senior systems consultant of CORE/GRID systems for Zeratec, Inc.

Professional Affiliations:

- American Geophysical Union
- American Astronomical Society
- Sigma Pi Sigma National Honor Society
- Sigma Xi National Research Society
- American Associate for the Advancement of Science

Professional Outreach Activities:

- Referee for NASA Postdoctoral Program, 2017-present
- Referee for American Institute of Physics – Physics of Plasmas, 2015-present
- Referee for Planetary Data Systems – Energetic Particle Instrument Data Sets, 2010-present

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Teaching Experience:

Department of Physics, University of Kansas, Lawrence, KS

- Adjunct Associate Professor
  Lecturer: **PHSX 114:** F15, F16 – College Physics I (Mechanics)

Science Department, Ottawa University, Ottawa, KS

- Adjunct Professor
  Lecturer: College Physics I: F14 – College Physics I (Mechanics)
  Lecturer: University Physics I: F14 – University Physics I (Mechanics)

Department of Physics, University of Kansas, Lawrence, KS

- Adjunct Assistant Professor
  Course coordinator: Phsx 212: F00-F03
  Lecturer: Phsx 212: F99-F03 – University Physics II (EM)
  Lecturer: Phsx 211: F01, F02 – University Physics I (Mechanics)
- Teaching Assistant
  Co-Instructor: Phsx 715: S96 – Graduate Computational Physics and Astronomy
  Guest Lecturer: Phsx 715,515: S95 – "Particle-In-Cell Modeling", "Fitting, Extrapolation, Interpolation"
  TA: Phsx 516: S85-S86 – Physical Measurements I Laboratory Instruction
  TA: Phsx Lab: S84-S86 – University Physics I, II, III Laboratory Instruction

Honors:

- NASA Group Achievement Award – Van Allen Probes Project Team
- NASA Group Achievement Award – Cassini MIMI Team
- NASA EPO Achievement Award – RBSP Education and Public Outreach Award
- FBI Recognition – Outstanding work for the implementation of the KCJIS to FBI III interface
- City of Lawrence Recognition – Outstanding Work Chairman of *Lawrence Douglas County Y2K Community Compliant Information Task Force*
- Ph.D. with Honors – University of Kansas
- Vice President Recognition Award – Boeing Computer Services
- Progress, Pride, and Productivity Award – Boeing Computer Services

Publications:

1. Manweiler, J W, J D Patterson, M Cooper, S Ledvina, A Gerrard, L J Lanzerotti, The Lagrange Communication Realtime Space-weather (LCARS) Array: Mission Concept, in preparation (see LCARS.FTecs.com for details)
2. Manweiler, J. W., C. G. Mouikis, Intercalibration of the Van Allen Probes ECT/HOPE and RBSPICE instruments, in preparation.
3. Pandya, M., Le, G., S.-B. Kang, A. Bhaskar, D. G. Sibeck, G. Reeves, M-C Fok, R. C. Rice, L-J Chen, Y. Ebihara, S. A. Boardsen, C. P. Ferradas, R. L. Kessel, G. Poh, J. W. Manweiler, M. G. Henderson, Injection and transport of the particle fluxes during the substorms that occurred on 7 September 2017: Multi-satellite observations. *Journal of Geophysical Research: Space Physics*, 131, 2026e2025JA034513. https://doi.org/10.1029/2025JA034513
4. Pandya, M., G. Le, Q. Ma, Y. Ebihara, H. Laakso, S. A. Boardsen, S. Lee, L. C. Porter, A. Breneman, S. Kang, M. Fok, G. Reeves, J. W. Manweiler, R. Kessel, R. Michell, M. Samara, (2025). Local-time asymmetries in particle pitch angle distributions and waves during the September 2017 geomagnetic Storm: MMS-RBSP Conjunction. Journal of Geophysical Research: Space Physics, 130, e2025JA034818, 2025, https://doi.org/10.1029/2025JA034818
5. Pandya, M., Y. Ebihara, D. M. Oliveria, M. Samara, M. Fok, A. Bhaskar, C.P. Ferradas, T. Tanaka, R. Michell, G. Reeves, and J. W. Manweiler, First Simultaneous Multi-Point Observation of the Local-Time Asymmetry of keV Ions in the Dayside Magnetosphere During the Main Phase of the Geomagnetic Storm, 2025, 10.1029/2025JA033793.

6. Pandya, M., Y. Ebihara, T. Tanaka, J W Manweiler, S. Vines, Intensification of the Electron Zebra Stripes in the Earth's Inner Magnetosphere During Geomagnetic Storms, GRL, 10.1029/2023GL107822, 2024
7. Lozinski, A. R., R. B. Horne, S. A. Glauert, A. C. Kellerman, J. Bortnik, S. G. Claudpierre, J. W. Manweiler, H. E. Spense, Modeling field line curvature scattering loss of 1–10 MeV protons during geomagnetic storms. Journal of Geophysical Research: Space Physics, 129, e2023JA032377. 2024, 10.1029/2023JA032377
8. Manweiler, J. W., J. D. Patterson, S. Ledvina, A. Gerrard, L. Lanzerotti, M. Cooper, and T. Chen, The Lagrange Communications and Advanced Realtime Space-weather (LCARS) Array, Bulletin of the AAS, 55(3). 2023, 10.3847/25c2cfeb.cfeb8407
9. Hirai, A, F. Tsuchiya, T. Obara, Y. Katoh, Y. Miyoshi, K. Shiokawa, Y. Kasaba, H. Misawa, C. Jun, S. Kurita, M. G. Connors, A. T. Hendry, A. Shinbori, Y. Otsuka, T. Tsugawa, M. Nishioka, S. Perwitasara, J. W. Manweiler, Spatio-Temporal Characteristics of IPDP-Type EMIC Waves on April 19, 2017: Implications for Loss of Relativistic Electrons in the Outer Belt, JGR-A, 128, 8, 2023,10.1029/2023JA031479
10. Li, J, J Bortnik, X Chu, D Ma, S Tian, C Wang, J W Manweiler, L Lanzerotti, Modeling Ring Current Proton Fluxes Using Artificial Neural Network and Van Allen Probe Measurements, Space Weather, Manuscript # 2022SW003257RR, submitted Dec 2022.
11. Pandya, M, Y Ebihara, T Tanaka, J W Manweiler, Formation of electron zebra stripes observed on 8 September 2017, JGR-A, 10.1029/2022JA030950, 2023
12. Zhao, H., S. T. Califf, R. Goyal, X. Li, M. Gkioulidou, J.W. Manweiler, S. Krantz, Statistical Analysis of the Differential Deep Penetration of Energetic Electrons and Protons into the Low L Region (L < 4), JGR-A, Manuscript # 2022JA031125, submitted Oct 2022.
13. Yin, Z, X Zhou, C Yue, Q Zong, Z Hu, Y Hao, Z Liu, X Chen, L Li, S Fu, H O Funsten, J W Manweiler, Localized Excitation of Electromagnetic Ion Cyclotron Waves from Anisotropic Protons Filtered by Magnetic Dips, Nature Communications, Manuscript# NCOMMS-21-49693, 10.1029/2022JA030531, 2022.
14. Califf, S, H Zhao, M Gkioulidou, J W Manweiler, D G Mitchell, S Tian, Multi-event Study on the Connection between Subauroral Polarization Streams and Deep Energetic Particle Injections in the Inner Magnetosphere, JGR-A, 10.1029/2021JA029895, 2021
15. Manweiler, J. W., A Breneman, J Niehof, B Larsen, G Romeo, G Stephens, A Halford, C Kletzing, L E Brown, H Spence, G Reeves, R Friedel, S Smith, R Skoug, B Blake, D Baker, S Kanekal, V Hoxie, A Jaynes, J Wygant, J Bonnell, D Crawford, M Gkioulidou, L J Lanzerotti, D G Mitchell, A Gerrard, A Ukhorskiy, T Sotirelis, R J Barnes, R Millan, B Harris, Science of the Van Allen Probes Science Operation Centers, *Space Sci. Rev.*, 10.1007/s11214-022-00919-x, 2022
16. Gallton, D, J W Manweiler, A Gerrard, J D Patterson, L Lanzerotti, T E Cravens, Ring current plasma scaling lengths: Multi-point Van Allen Probe measurements, Geophysical Research Letters, Manuscript# 2021GL096463, submitted 10-2021, resubmitted with revisions, 04-2022.
17. Gkioulidou M, D G Mitchell, J W Manweiler, L J Lanzerotti, A Gerrard, S Ukhorskiy, K Keika, C G Mouikis, L M Kistler, Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE) revisited: In-flight calibrations, lessons learned and scientific advances, Space Science Review, Manuscript# SPAC-D-21-00044, submitted 5/2021.
18. Soto-Chavez, A.R., L. Lanzerotti, J. W. Manweiler, A. Gerrard, R. Cohen, Z. Xia, L. Chen, and H. Kim, Observational evidence of the drift mirror-plasma instability in Earth's inner magnetosphere, Phys. Plasmas 26, 042110 (2019); 10.1063/1.5083629, 2019
19. Madanian, H., J. L. Burch, T. E. Cravens, T W. Boiles, J. W. Manweiler, R. Goldstein, P. Mokashi, A. I. Eriksson, E. Scime, I. Richter, M. Costa, Suprathermal Electron Pitch Angle Distributions in the Plasma Environment of Comet 1 67P/CG: A Case Study, JGR-A, 2018,10.1002/2016JA022610 .
20. Keika, K., K. Seki, M. Nose, Y. Miyoshi, L. Lanzerotti, D. Mitchell, M. Gkioulidou, J. W. Manweiler, Three-step buildup of the 17 March 2015 storm ring current: Implication for the cause of the unexpected storm intensification, JGR-A, 2017, 10.1002/2017JA024462
21. Summers, D., R. Shi, M. Engebretson, K. Oksavik, J. Manweiler, and D. Mitchell, Energetic proton spectra measured by the Van Allen Probes, JGR-A, 122,10,129—10,144. 10.1002/2017JA024484, 2017.

22. Kim, H., A. Gerrard, L. Lanzerotti, A. Soto-Chavez, R. Cohen, and J. Manweiler, Ring Current He-Ion Control by Bounce Resonant ULF Waves, JGR-A, 122, 10.1002/2017JA023958, 2017.
23. Min K., K. Takahashi, A.Y Ukhorskiy, J.W Manweiler, H.E. Spence, H.J. Singer, S.G. Claudepierre, B.A. Larsen, A. R. Soto-Chavez, and R. J. Cohen, Second harmonic poloidal waves observed by Van Allen Probes in the dusk-midnight sector, JGR-A, 122, 3013-3039, 10.1002/2016JA023770, 2017.
24. Li, J., J. Bortnik, W. Li, Q. Ma, R.Thorne, C. Kletzing, W. Kurth, G. Hospodarsky, J. Wygant, A. Breneman, S. Thaller, H. Funsten, D. Mitchell, J. Manweiler, et al, Zipper-Like" Periodic Magnetosonic Waves: Van Allen Probes, THEMIS, and Magnetospheric Multiscale Observations, JGR-A, 122, 1600-1610, 10.1002/2016JA023536, 2016.
25. Cohen R., A.J. Gerrard, L.J. Lanzerotti, A.R. Soto-Chavez, H. Kim, and J.W Manweiler, Climatology of high β plasma measurements in Earth's inner magnetosphere, JGR-A, 121, 711-726, 10.1002/2016JA022513, 2016.
26. Shi, R., D. Summers, B. Ni, J. W. Manweiler, D. G. Mitchell, L. J. Lanzerotti, A statistical study of proton pitch angle distributions measured by the Radiation Belt Storm Probes Ion Composition Experiment, JGR-A, 121, 5233-5249, 10.1002/2015JA022140, 2016.
27. Korotova, G.I., D.G. Sibeck, K. Tahakashi, L. Dai, H.E. Spence, C.A. Kletzing, J.R. Wygant, J.W. Manweiler, P.S. Moya, K.-J. Hwang, and R.J. Redmon, Van Allen Probe observations of drift-bounce resonances with Pc 4 pulsations and wave-particle interactions in the pre-midnight inner magnetosphere, Ann. Geophys., 33, 955-964, 10.5194/angeo-33-955-2015, 2015.
28. O'Brien, T.P, S.G. Claudepierre, M.D. Looper, J.B. Blake, J.F. Fennell, J.H. Clemmons, J.L. Roeder, S.G. Kanekal, J.W. Manweiler, D.G. Mitchell, M. Gkioulidou, L.J. Lanzerotti, H.E. Spence, G.D. Reeves and D.N. Baker, On the use of drift echoes to characterize on-orbit sensor discrepancies, JGR-A, 120, 2076–2087. 10.1002/2014JA020859, 2014.
29. Gerrard, A., L. Lanzerotti, M. Gkioulidou, D. Mitchell, J. Manweiler, J. Bortnik, and K. Keika, Initial measurements of O-ion and He-ion decay rates observed from the Van Allen Probes RBSPICE instrument, JGR-A, 119, 8813-8819, 10.1022/2014JA020374, 2014.
30. Gerrard, A., L. Lanzerotti, M. Gkioulidou, D. Mitchell, J. Manweiler, J. Bortnik, Quiet time observations of He ions in the inner magnetosphere as observed from the RBSPICE instrument aboard the Van Allen Probes mission, *GRL*, 10.1002/2013GL059175, 2014.
31. Mitchell, D.G., L.J. Lanzerotti, C.K. Kim, M. Stokes, G. Ho, S. Cooper, A. Ukhorskiy, J.W. Manweiler, S. Jaskulek, D.K. Haggerty, P. Brandt, M. Sitnov, K. Keika, J.R. Hayes, L.E. Brown, R.S. Gurnee, J.C. Hutcheson, K.S. Nelson, C. M. Hammock, N. Paschalidis, E. Rossano, and S. Kerem, Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE), *Space Sci. Rev*., 10.1007/s11214-013-9965-x, 2013.
32. Armstrong, T. P., S. Taherion, J. Manweiler, S. M. Krimigis, C. Paranicas, D. Mitchell, and N. Krupp, Energetic Ions Trapped in Saturn's Inner Magnetosphere, *Planet. Space Sci*., **57**, 1723, 10.1016/J.PSS.2009.03.008, 2009.
33. Krimigis, S. M., D. G. Mitchell, D. C. Hamilton, N. Krupp, S. Livi, E. C. Roelof, J. Dandouras, T. P. Armstrong, B. H. Mauk, C. Paranicas, P. C. Brandt, S. J. Bolton, A. F. Cheng, T. Choo, G. Gloeckler, J. Hayes, K. C. Hsieh, W.-H. Ip, S. Jaskulek, E. P. Keath, E. Kirsch, M. Kusterer, A. Lagg, L. J. Lanzerotti, D. LaVallee, J. Manweiler, R. W. McEntire, W. Rasmuss, J. Saur, F. S. Turner, D. J. Williams, and J. Woch, Dynamics of Saturn's Magnetosphere from the Magnetospheric Imaging Instrument During Cassini's Orbital Insertion, *Science*, **307**, 1270, 10.1126/science.1105978 2005.
34. Mauk, B. H., J. S. Saur, D. G. Mitchell, E. C. Roelof, P. C. Brandt, T. P. Armstrong, D. C. Hamilton, S. M. Krimigis, N. Krupp, S. A. Livi, J. W. Manweiler, and C. P. Paranicas, Energetic Particle Injections in Saturn's Magnetosphere, *GRL*, **32**, L14S05, 10.1029/2005GL022485, 2005.
35. Manweiler, J. W., The Interplanetary Medium, in Encyclopedia of Space Science and Technology, vol. 1, ed. H. Mark, Wiley-Interscience, 10.1002/0471263869.sst037, 2003.
36. Manweiler, J. W., T. P. Armstrong, and T. E. Cravens, Complex Charge Distributions of Dielectric Dust Grains Due to Plasma Flow, *Journal of Plasma Physics*, **63**, 3,10.1017/S0022377899008314 , 2000.

37. Manweiler, J.W., T. P. Armstrong, T. E. Cravens, Coagulation of dielectric dust grains due to variable asymmetric charging, AIP Conference Proceedings, 446, 12, 10.1063/1.56659, 1998.
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39. Manweiler, J. W., T. P. Armstrong, and T. E. Cravens, Modifications to Collisional Cross Sections Due to Complex Plasma Induced Grain Charge Distributions, p. 79 in *The Physics of Dusty Plasmas*, Eds. P. K. Shukla, D. A. Mendis, and V. W. Chow, *World Scientific*, Singapore, 10.1142/3085, 1996.
40. McDavitt, K. I., J. W. Manweiler, and J. P. Davidson, Search for Heavy Elements in A-type Stars, *Transactions of the Kansas Academy of Science*, **98**, 3-4,10.2307/3628239 , 1995.
41. Manweiler, J. W., T. E. Cravens, and T. P. Armstrong, Electrostatic Interactions of Two Dielectric Dust Particles in the Presence of Plasma, *Adv. Space Research* (COSPAR Proceedings, Washington, D. C., August 1992), **13**, 10175, 10.1016/0273-1177(93)90066-K, 1993.

Presentations and Posters:

1. Manweiler, J W, J D Patterson, M Cooper, S Ledvina, A Gerrard, L J Lanzerotti, The Lagrange Communication Realtime Space-weather (LCARS) Array: Mission Concept Development Status Update, SH11F-2854, AGU Fall Meeting, 2024
2. Manweiler, J W, J D Patterson, M Cooper, S Ledvina, A Gerrard, L J Lanzerotti, The Lagrange Communication Realtime Space-weather (LCARS) Array: Mission Concept Development Status Update, SH33D-3080, AGU Fall Meeting, 2023
3. Cooper, M. , A Gerrard, I. Kuzichev, G. Perry, Manweiler, J W, Parallel Currents in the Inner Magnetosphere with Asymmetric Sunward/Anti-Sunward Flow Directions, SM44A-04, AGU Fall Meeting, 2023
4. Patterson, J D, Manweiler, J W, D. Klumpar, J. Sample, FT-EPD: A 2U Instrument for Examining Plasma and Energetic Particle Transport in Low-Earth Orbit, SM04-01, AGU Fall Meeting, 2023
5. Manweiler, J W, J D Patterson, S Ledvina, A Gerrard, L J Lanzerotti, M Cooper, The Lagrange Communication Realtime Space-weather (LCARS) Array, SM35B-1759, AGU Fall Meeting, 2022
6. Cooper, M B, A J Gerrard, G W Perry, L V Kuzichev, J W Manweiler, S Noh, The Middle Energy Inner Magnetosphere (MEIM) Model: Multiple Population Phase Space Densities, , Poster: AGU Fall Meeting 2022
7. Zhao, H, S. Califf, R. Goyal, M. Gkioulidou, J W Manweiler, S. Krantz, Statistical Analysis of the Differential Deep Penetration of Energetic Electrons and Protons into the Inner Magnetosphere, SM13A-07, Poster: AGU Fall Meeting 2022
8. Ferradas, C, S. Thaller, M Fok, G. Reeves, B. Larsen, J. W. Manweiler, L. Lanzerotti, M. Cooper, The Ring Current Plasma Pressure: A Van Allen Probes Survey, SM21A-05, Poster: AGU Fall Meeting 2022
9. Mafi, J., S. Joy, L. Miller, C. Piker, J. Faden, R. Walker, J. W. Manweiler, Enhanced Support for Particle and Plasma Data in the Planetary Data System, Poster: AGU Fall Meeting, 2021
10. Miller, L., J. W. Manweiler, E C S Jr, J F Cooper, P K, New High-Level Galileo Energetic Particle Detector and Magnetic Field Dataset, Poster: AGU Fall Meeting, 2021
11. Hirai, A., F. Tsuchiya, T. Obara, Y. Kasaba, Y. Katoh, H. Misawa, K. Shiokawa, Y. Miyoshi, C.-W. Jun, S. Kurita, M. Connors, A. Hendry, A. Shinbori, Y. Otsuka, T. Tsugawa, M. Nishioka, J. W. Manweiler, The mechanism of frequency increase of IPDP type EMIC waves: event analysis of ground and satellite observations on 19 April 2017, Poster: AGU Fall Meeting, 2021 (Note: added as author after submission)
12. Manweiler, J.W., C. Mouikis, A. Boyd, B. Larsen, R. Skoug, M. Gkioulidou, L. J. Lanzerotti, H. Spence, G. Reeves, Van Allen Probes instrument calibration results of the for ECT-HOPE and RBSPICE energetic particle detectors, Poster: AGU Fall Meeting, 2021, DOI: 10.1002/essoar.10509895.1
13. Manweiler, J.W., M. Connors, M. Engebretson, J. Weygand, A. R. Soto-Chavez, M. Cooper, A. Gerrard, D. Mitchell, L. J. Lanzerotti, Direct observation of Magnetospheric-Ionospheric (M-I) coupling by Spacecraft and Ground systems on Feb 2, 2017, Presentation: AGU Fall Meeting, 2018.
14. Manweiler, J.W., M. Connors, M. Engebretson, J. Weygand, February 2, 2017 observation of Large Impulsive Magnetic Event (LIME) by AUTUMNX and Van Allen Probes, Poster: COSPAR Pasadena, 2018.

15. Manweiler, J.W., D. Mitchell, L. Lanzerotti, Van Allen Probes intercalibration between HOPE and RBSPICE protons, Poster: GEM Summer Workshop, 2018.
16. Manweiler, J.W., A. Gerrard, J. D. Patterson, D. Mitchell, L. Lanzerotti, Flow of energy through the inner magnetosphere during the March 17, 2015 solar storm as observed by the Van Allen Probes Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE). Presentation, AGU Fall Meeting, 2017.
17. Madanian, H., J. D. Patterson, J. W. Manweiler, A. R. Soto-Chavez, A. Gerrard, L. Lanzerotti, Time-lag and correlation between ACE and RBSPICE injection event observations during storm times. Presentation, AGU Fall Meeting, 2017.
18. Soto-Chavez, A. R., L. Lanzerotti, R. Cohen, A. Gerrard, J. W. Manweiler, Z. Xia, L. Chen, H. Kim, Generation of ULF waves by the drift-mirror plasma instability. Presentation, AGU Fall Meeting, 2017.
19. Patterson, J. D., H. Madanian, J. W. Manweiler, L. Lanzerotti, Solar energetic particle composition over two solar cycles as observed by the Ulysses/HISCALE and ECE/EPAM Pulse Height Analyzers (PHA). Presentation, AGU Fall Meeting, 2017.
20. Gallton, D., J. W. Manweiler, A. Gerrard, T. Cravens, L. Lanzerotti, J. D. Patterson, Analysis of Van Allen Probes lapping data using Radiation Belt Storm Probes Ion composition Experiment (RBSPICE). Presentation, AGU Fall Meeting, 2017.
21. Gallton, D., J. W. Manweiler, A. Gerrard, T. Cravens, L. Lanzerotti, J. D. Patterson, Analysis of Van Allen Probes lapping data using Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE), Poster: GEM Summer Workshop, 2017.
22. Martens, J, J. W. Manweiler, R. M, Manweiler, A. Gerrard, L. J. Lanzerotti, 18621: Climatology of the Earth's inner magnetosphere as observed by the Radiation Belt Storm Probes Ion Composition Experiment using Principle Component Analysis, Poster: AGU Fall Meeting, 2017.
23. Soto-Chavez, R., L.J. Lanzerotti, R. Cohen, A. Gerrard, J.W. Manweiler, High beta plasma observations in Earth's *inner* magnetosphere: Waves and particle modulations, and drift-mirror instability. Presentation, APS Division of Plasma Physics Annual Meeting, 2016.
24. Manweiler, J. W., J. D. Patterson, A. Gerrard, M. Gkioulidou, D. Mitchell, L. Lanzerotti, RBSPICE Observations of the March 17, 2015 Solar Storm, poster SM41E-2541, AGU Fall Meeting, 2015.
25. Patterson, J. D., J. W. Manweiler, A. Gerrard, L. Lanzerotti, ACE EPAM and Van Allen Probes RBSPICE measurements of interplanetary oxygen injection to the inner magnetosphere, poster SM13A-2484, AGU Fall Meeting, 2015.
26. Gallton, D, J. W. Manweiler, J. D. Patterson, A. Gerrard, M. Gkioulidou, D. Mitchell, L. Lanzerotti, Overview of Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE): Data Access and Science Results, poster SM41E-2517, AGU Fall Meeting, 2015.
27. Hyomin K., L. J. Lanzerotti, A. J. Gerrard, J.W. Manweiler, A. R. Soto-chavez, R. J. Cohen and J. Bortnik, Study of Interactions Between ULF Waves and Ring Current Heavy (He+ and O+) Ions, poster SM41F-2553, AGU Fall Meeting, 2015.
28. Manweiler, J. W., J. D. Patterson, A. Gerrard, M. Gkioulidou, D. Mitchell, L. Lanzerotti, RBSPICE Observations of the March 17, 2015 Solar Storm, GEM Summer Workshop, 2015.
29. Manweiler, J. W., J. D. Patterson, A. Gerrard, M. Gkioulidou, D. Mitchell, L. Lanzerotti, Overview of Radiation Belt Storm Probes Ion Composition Experiment (RBSPICE): Data Access and Science Results, GEM Summer Meeting, 2015.
30. Manweiler, J. W., L. Brown, J. D. Patterson, M. Gkioulidou, S. Ukhorsky, A. Gerrard, D. Mitchell, L. Lanzerotti, A. Lui, Overview of the RBSPICE Instrument, Triennial Earth Sun Summit (TESS) Conference, 2015.
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