Delores J. Knipp

Professional Address:

Smead Aerospace Engineering Sciences Department
431 UCB
University of Colorado Boulder
Boulder, CO 80309

ORCID: 0000-0002-2047-5754

Education:

1986 - 1989 University of California, Los Angeles
Ph.D*. in Atmospheric Science (emphasis, Space and Upper Atmosphere Physics)*
Dissertation Title: Quantifying and reducing uncertainty in the Assimilative Mapping of Ionospheric Electrodynamics Procedure
M.S*. in Atmospheric Science (emphasis, Space and Upper Atmosphere Physics), 1987*

1983 - 1984 University of Missouri
M.S*. in Atmospheric Science (emphasis, Remote Sensing)*

1972 - 1976 University of Missouri
B.S*. in Agriculture (emphasis Atmospheric Science, cum laude)*

Current Positions and Appointments:

Research Professor, Smead Aerospace Engineering Sciences Department
Member Colorado Center for Astrodynamics Research
Graduate Course Instructor in Aerospace Environment
Principle Investigator Space Environment Data Analysis Group
2013 - Present University of Colorado, Boulder, CO

Senior Research Associate, High Altitude Observatory
2008 – present National Center for Atmospheric Research

Adjunct Professor of Atmospheric Science
College of Agriculture, Food and Natural Resources
2017 – present University of Missouri, Columbia

Previous Positions and Professional Experience:

Visiting Professor, Aerospace Engineering Sciences Department
2009-2013 University of Colorado, Boulder, CO

Senior Research Associate NOAA Space Weather Prediction Center
2009 - 2010 National Research Council, resident at NOAA

Professor of Physics
1996 - 2008 US Air Force Academy (USAFA)
Physics Department Director of Operations and Director of Meteorology;
Initiated Space Physics and Atmospheric Research Center at USAFA
Taught: Astronomy, Physics, and Meteorology at all undergrad levels
Member of AF Multi University Research Initiative Team

1977 - 1999 US Air Force Officer

Research Interests:

Prof. Knipp's research focuses on the space environment and the atmospheric and solar events that disturb it. She works with students to investigate methods for: 1) specifying satellite drag; 2) describing how structures on the Sun produce disturbances in near-Earth space; 3) improving scientific use of space environment measurements from DoD, NASA and international space missions; 4) inter-comparing measurements from research and commercial satellites with an eye toward making broader use of commercial satellite 'housekeeping' data to monitor environmental conditions in near-Earth space. 5) estimating the conductivity of Earth's upper atmosphere. She also studies historical space weather events to understand the impacts these events have had on the US military. Prof. Knipp is participating in a current AFOSR-sponsored Multi University Research Initiative entitled: Next Generation Advances in Ionosphere-Thermosphere Coupling at Multiple Scales for Environmental Specification and Prediction

Editorships:

Editor in Chief for the American Geophysical Union's ***Space Weather-the International Journal of Research and Applications*** (2014-Present)

Guest editor for Journal of Atmospheric and Solar Terrestrial Physics (2000-2001)

Memberships in Professional Societies:

American Geophysical Union (AGU)
American Meteorological Society (AMS)

Participation in other Professional Societies:

American Institute of Aeronautics and Astronautics (AIAA)
International Union of Geodesy and Geophysics (IUGG)
Asia Oceania Geosciences Society (AOGS)
Japan Geoscience Union (JpGU)
European Geoscience Union (EGU)
American Astronomical Society (AAS)
International Astronomical Union (IAU)

Recent Professional Service Activities:

2017-2018 AMS Ad Hoc Committee on Space Weather Certification
2017-present: Participant in Solar Week (March & October) MultiVerse UC Berkeley outreach
2017 Invited Plenary Speaker on Space Weather at 230th AAS Meeting
2015-2016 Portfolio Review Committee, National Science Foundation
(NSF) Geospace Section, Division of Atmospheric and Geospace Sciences
2012-2103: Convener and Instructor for 1st AMS Space Weather Short Course
2005 – 2006: Member of the National Space Weather Program Assessment Committee

Recent Refereeing and Reviewing:

Advances in Space Science
Journal of Atmosphere and Solar Terrestrial Physics
Acta Geophysica
Geophysical Research Letters (AGU)

International Astronomical Union
Journal Geophysical Research-Space Physics (AGU)
Journal of Space Weather and Space Climate
Space Weather Journal (AGU)
NASA proposals (1995-ongoing as needed)
NSF proposals (1995-ongoing as needed)
AFOSR proposals (2000-ongoing as needed)
Canada Foundation for Innovation (2017)

Awards and Honors:

2018 Designated at 2019 Fellow of the American Meteorological Society
2017 NSF Coupling Energetic and Dynamics of Atmospheric Regions (CEDAR) Prize Lecture
2013 American Geophysical Union Citation for Excellence in Refereeing
2008 USAF Academy Professor of the Year 2008

Supervision:

Supervisor of numerous junior and mid-level Air Force officers and civilians 1984-2008
Post-Doctoral Supervisor: Dr. Kelly Ann Drake, 2008-2009
Early Career Visiting Scientist, Dr. Zheng Li, Nanjing University/NCAR 2017-present
Five graduate students at CU (2013-2018)
More than a dozen Research Experience for Undergraduate students at USAFA and CU

Publications and Presentations:

Textbook

Knipp D. J. Understanding Space Weather and the Physics Behind It, McGraw Hill, 2011, now in 2nd Edition as e-book by Space Technology Series: http://store.spacetechnologyseries.com/ebooks/17-understanding-space-weater-and-the-physics-behind-it.html

Peer-reviewed

PEER-REVIEWED JOURNAL ARTICLES

1. Knipp, D. J., Fraser, B. J., Shea, M. A., & Smart, D. F. (2018). On the little-known consequences of the 4 August 1972 ultra-fast coronal mass ejecta: Facts, commentary, and call to action. *Space Weather*, 16, 1635–1643. https://doi.org/10.1029/2018SW002024
2. Li, Z., Knipp, D., Wang, W., Sheng, C., Qian, L., & Flynn, S. (2018). A comparison study of NO cooling between TIMED/SABER measurements and TIEGCM simulations. *Journal of Geophysical Research: Space Physics*, 123. https://doi.org/10.1029/2018JA025831
3. Lu, Y., Deng, Y., Sheng, C., Kilcommons, L., & Knipp, D. J. (2018). Poynting flux in the dayside polar cap boundary regions from DMSP F15 satellite measurements. *Journal of Geophysical Research: Space Physics*, 123. https://doi.org/10.1029/2018JA025309
4. Flynn, S., Knipp, D. J., Matsuo, T., Mlynczak, M. & Hunt, L. (2018). Understanding the Global Variability in Thermospheric Nitric Oxide Flux Using Empirical Orthogonal Functions (EOFs). *Journal of Geophysical Research: Space Physics*, 123. https://doi.org/10.1029/2018JA025353
5. Knipp, D. J. (2018). The Reprise Special Collection for the 2001 Space Weather Monograph. *Space Weather*, 16. https://doi.org/10.1002/2018SW001807
6. Mlynczak, M. G., Knipp, D. J., Hunt, L. A., Gaebler, J., Matsuo, T., Kilcommons, L. M. & Young, C. L. (2018). Space-Based Sentinels for Measurement of Infrared Cooling in the Thermosphere for

Space Weather Nowcasting and Forecasting. *Space Weather*, 16. https://doi.org/10.1002/2017SW001757

7. Hayakawa, Hishasi, Kiyomi Iwahashi, Yusuke Ebihara, Harufami Tamazawa, Kazunari Shibata, Delores J. Knipp, Akito Davis Kawamura, Kentaro Hattori, Kumiko Mase, Ichiro Nakanishi, Hiroaki Isobe (2017), Long-Lasting Extreme Magnetic Storm Activities in 1770 Found in Historical Documents, *Astrophys. J. Lett., 850,* https://doi.org/10.3847/2041-8213/aa9661
8. Knipp, D., Liu, H., & Hayakawa, H. (2017). Ms. Hisako Koyama: From amateur astronomer to long-term solar observer. Space Weather, *15, 1215–1221 https://doi.org/10.1002/2017SW001704*
9. Eriksson, S., M. Maimaiti, J. B. H. Baker, K. J. Trattner, D. J. Knipp, *and* F. D. Wilder (2017), Dual **E** × **B** flow responses in the dayside ionosphere to a sudden IMF By rotation, *Geophys. Res. Lett., 44, 6525–6533, doi:10.1002/2017GL073374.*
10. Kilcommons, L., Redmon, R. J., Knipp, and D. J. (2017). A New DMSP Magnetometer Dataset and Estimates of Field Aligned Currents in Dynamic Auroral Boundary Coordinates, *J. Geophys. Res. Space Physics, 122, 9068–9079, doi:10.1002/2016JA023342.*
11. Redmon, Robert, Liam Kilcommons, William Denig, and Delores Knipp, New DMSP Database of Precipitating Auroral Electrons and Ions, (2017), *J. Geophys. Res. Space Physics, 122, 9056–9067, doi:10.1002/2016JA023339.*
12. Knipp, D. J. (2017), Essential science for understanding risks from radiation for airline passengers and crews, *Space Weather, 15, 549–552, doi:10.1002/2017SW001639.*
13. Knipp, D. J., D. V. Pette, L. M. Kilcommons, T. L. Isaacs, A. A. Cruz, M. G. Mlynczak, L. A. Hunt and C. Y. Lin (2017), Thermospheric Nitric Oxide Response to Shock-led Storms, *Space Weather, 15, 325–342, doi:10.1002/2016SW001567.*
14. Knipp, D. J., et al. (2016), The May 1967 great storm and radio disruption event: Extreme space weather and extraordinary responses, *Space Weather*, 14, 614–633, doi:10.1002/2016SW001423.
15. Zhang, B., W. Wang, Q. Wu, D. Knipp, L. Kilcommons, O. J. Brambles, J. Liu, M. Wiltberger, J. G. Lyon, and I. Häggström (2016), Effects of magnetospheric lobe cell convection on dayside upper thermospheric winds at high latitudes, *Geophys. Res. Lett.*, 43, 8348–8355, doi:10.1002/2016GL069834.
16. McGranaghan, R., D. J. Knipp, and T. Matsuo (2016), High-latitude ionospheric conductivity variability in three dimensions, *Geophys. Res. Lett.,* 43, 7867–7877, doi:10.1002/2016GL070253.
17. McGranaghan, R. M., D. J. Knipp, T. Matsuo, and E. Cousins (2016) Optimal interpolation analysis of high-latitude ionospheric Hall and Pedersen conductivities: Application to assimilative ionospheric electrodynamics reconstruction, *J. Geophys. Res. Space Physics*, 121, 4898–4923, doi:10.1002/2016JA022486.
18. Rastätter Lutz, Ja Soon Shim, Maria M. Kuznetsova, Liam M. Kilcommons, Delores J. Knipp, Mihail Codrescu, Tim Fuller-Rowell, Barbara Emery, Daniel R. Weimer, Russell Cosgrove, Michael Wiltberger, Joachim Raeder, Wenhui Li, Gábor Tóth, and Daniel Welling (2016), GEM-CEDAR challenge: Poynting flux at DMSP and modeled Joule heat, *Space Weather*, 14, doi:10.1002/2015SW001238.
19. McGranaghan, R., D. J. Knipp, T. Matsuo, H. Godinez, R. J. Redmon, S. C. Solomon, and S. K. Morley (2015), Modes of high-latitude auroral conductance variability derived from DMSP energetic electron precipitation observations: Empirical orthogonal function analysis, *J. Geophys. Res. Space Physics*, 120, 11,013–11,031, doi:10.1002/2015JA021828.
20. Knipp, D. J. (2015), Synthesis of Geomagnetically Induced Currents: Commentary and Research, *Space Weather*, 13, 727–729, doi:10.1002/2015SW001317.

21. Knipp, D. J. (2015), Forward to space weather collection on geomagnetically induced currents: Commentary and research, *Space Weather*, 13, 742–746, doi:10.1002/2015SW001318.
22. Knipp, D. J., and D. A. Biesecker (2015), Changing of the guard: Satellite will warn Earth of solar storms, *Eos*, 96, doi:2015EO026579.
23. Redmon, R. J., J. V. Rodriguez, J. C. Green, D. Ober, G. Wilson, D. Knipp, L. Kilcommons, and R. McGuire (2015), Improved Polar and Geosynchronous Satellite Data Sets Available in Common Data Format at the Coordinated Data Analysis Web, *Space Weather*, 13, 254–256. doi:10.1002/2015SW001176.
24. Deng, Y., C. Sheng, Y.-J. Su, M. R. Hairston, D. Knipp, C. Y. Huang, D. Ober, R. J. Redmon, and R. Coley (2015), Correlation between Poynting flux and soft electron precipitation in the dayside polar cap boundary regions, *J. Geophys. Res. Space Physics*, 120, 9102–9109, doi:10.1002/2015JA021075.
25. Matsuo, T., D. J. Knipp, A. D. Richmond, L. Kilcommons, and B. J. Anderson (2015), Inverse procedure for high-latitude ionospheric electrodynamics: Analysis of satellite-borne magnetometer data, *J. Geophys. Res. Space Physics*, 120, 5241–5251, doi:10.1002/2014JA020565.2.
26. McGranaghan, R., D. J. Knipp, S. C. Solomon, and X. Fang (2015), A fast, parameterized model of upper atmospheric ionization rates, chemistry, and conductivity. *J. Geophys. Res. Space Physics*, 120, 4936–4949. doi: 10.1002/2015JA021146.
27. Knipp, D. J., L. M. Kilcommons, J. Gjerloev, R. J. Redmon, J. Slavin, and G. Le, (2015) A Large-Scale View of Space Technology 5 Magnetometer Response to Solar Wind Drivers, *Earth and Space Science*, DOI: 10.1002/2014EA000057
28. McGranaghan, R., D. J. Knipp, R. L. McPherron, and L. A. Hunt (2014), Impact of equinoctial high-speed stream structures on thermospheric responses, *Space Weather*, 12, 277–297, doi:10.1002/2014SW001045.
29. Knipp, D. J., T. Matsuo, L. Kilcommons, A. Richmond, B. Anderson, H. Korth, R. Redmon, B. Mero, and N. Parrish (2014), Comparison of magnetic perturbation data from LEO satellite constellations: Statistics of DMSP and AMPERE, *Space Weather*, 12, doi:10.1002/2013SW000987.
30. Tobiska, W. K., D. Knipp, W. J. Burke, D. Bouwer, J. Bailey, D. Odstrcil, M. P. Hagan, J. Gannon, *and* B. R. Bowman *(*2013*),* The ANEMOMILOS prediction methodology for Dst*, Space Weather,* 11*,* 490–508*,* doi:10.1002/swe.20094
31. Deng, Y., T. J. Fuller-Rowell, A. J. Ridley, D. Knipp, and R. E. Lopez (2013), Theoretical study: Influence of different energy sources on the cusp neutral density enhancement, *J. Geophys. Res. Space Physic*s, 118, 2340–2349, doi:10.1002/jgra.50197.
32. Knipp, D., L. Kilcommons, L. Hunt, M. Mlynczak, V. Pilipenko, B. Bowman, Y. Deng, and K. Drake (2013), Thermospheric damping response to sheath-enhanced geospace storms, *Geophys. Res. Lett*., 40, doi:10.1002/grl.50197.
33. Deng, Y., Y. Huang, S. Solomon, L. Qian, D. Knipp, D. R. Weimer, and J.-S. Wang (2012), Anomalously low geomagnetic energy inputs during 2008 solar minimum, J. Geophys. Res., 117, A09307, doi:10.1029/2012JA018039
34. Knipp, D., S. Eriksson, L. Kilcommons, G. Crowley, J. Lei, M. Hairston, and K. Drake, (2011), Extreme Poynting flux in the dayside thermosphere: Examples and statistics, *Geophys. Res. Lett*., 38, L16102, doi:10.1029/2011GL048302.
35. Li, W., D. Knipp, J. Lei, and J. Raeder, (2011) The relation between dayside local Poynting flux enhancement and cusp reconnection, *J. Geophys. Res*., 116, A08301, doi:10.1029/2011JA016566.

36. Crowley, G., D. J. Knipp, K. A. Drake, J. Lei, E. Sutton, and H. Lühr, (2010) Thermospheric density enhancements in the dayside cusp region during strong B_Y conditions, *Geophys. Res. Lett., 37*, L07110, doi:10.1029/2009GL042143.
37. Sutton, E. K., J. M. Forbes, and D. J. Knipp, (2009) Rapid response of the thermosphere to variations in Joule heating, *J. Geophys. Res.*, 114, A04319, doi:10.1029/2008JA013667.
38. Gross, N. A., N. Arge, R. Bruntz, A. G. Burns, W. J. Hughes, D. Knipp, J. Lyon, S. McGregor, M. Owens, G. Siscoe, S. C. Solomon, and M. Wiltberger, (2009) Space Physics Concepts for Graduate Students: An Activities-Based Approach, *EOS*, Vol 90, p. 13-14, 13 January 2009
39. Turner, N., E. J. Mitchell and D. J. Knipp, Energetics of Magnetic Storms Driven by Corotating Interaction Regions: A Study of Geoeffectiveness, *AGU Monograph of Geoeffectiveness*, American Geophysical Union, Washington, D. C. doi: 10.1029/167GM11
40. Knipp, D. J., E. T. Patterson, J. H. Head, T. A. Summers, A. Franz, and E. L. Zirbel, Simulating the Physics of Realistic Satellite Orbits in the Undergraduate Classroom, (2005) *The Physics Teacher*, The Physics Teacher **43**, 452; https://doi.org/10.1119/1.2060645
41. McHarg, M., F. Chun, D. Knipp, G. Lu, B. Emery, and A. Ridley (2005), High-latitude Joule heating response to IMF inputs, *J. Geophys. Res.*, *110*, A08309, doi:10.1029/2004JA010949, 2005
42. Knipp, D. J., T. Welliver, M. G. McHarg, F. K Chun. W. K. Tobiska and D. Evans, Climatology of extreme upper atmospheric heating events*, Advances in Space Research* 36, 2506-2510, 2005, doi:10.1016/j.asr.2004.02.019
43. Knipp, D. J., W. K. Tobiska and B. A. Emery, Solar Direct and Indirect Thermospheric Heating Sources for Solar Cycles 21-23, *Solar Physics*, 224:495-505, 2004, https://doi.org/10.1007/s11207-005-6393-4
44. Nuhfer Edward and Delores J. Knipp, The Knowledge Survey: A Tool for All Reasons, *To Improve the Academy, Vol 21,* 2002.
45. Chun, F. K., D. J. Knipp, M. G. McHarg, J. R. Lacey, G. Lu, and B. A. Emery, Joule heating patterns as a function of polar cap index, *J. Geophys. Res.*, *107*(A7), 10.1029/2001JA000246, 200
46. Shiokawa, K., Y. Otuska, T. Ogawa, N. Balan, K. Igarashi, A. J. Ridley, D. J. Knipp, A. Saito and K. Yumoto, A large scale traveling ionospheric disturbance during the magnetic storm of September 15, 1999), *J. Geophys. Res,* Vol 107, SIA 5-1 to SIA 5-11, 2001JA000245, 2002
47. Knipp, D. J. and C.-H. Lin, B. A. Emery, J. M. Ruohoniemi, and D. S. Evans, "Hemispheric asymmetries in ionospheric electrodynamics during the solar wind void of 11 May 1999," *G R L.,* 27, 4013, 2000.
48. Habash-Krause, L., B. K. Dichter, D. J. Knipp, and K. P. Ray, The Relationship Between DSCS III Sunlit Surface Charging and Geomagnetic Activity Indices, *IEEE Trans. Nuclear Sci.*, 47, 2224, 2000, DOI: 10.1109/23.903757
49. Crowley, G. A. J. Ridley, D. Deist, S. Wing, D. J. Knipp, B. A. Emery, J. Foster, R. Heelis and M. Hairston and B. W. Reinisch, "The transformation of high-latitude ionospheric F-region patches into Blobs during the March 21, 1990 storm, *J. Geophys. Res., 105, 5215,* 2000.
50. Ballatore, P. L. J. Lanzerotti, G. Lu, and D. J. Knipp, "Relationship between the Northern Hemisphere Joule Heating and Geomagnetic activity in the Southern Polar Cap, *J. Geophys. Res., 105, 27617,* 2000.
51. Chun, F. K., D. J. Knipp, M. G. McHarg, G. Lu, B. A. Emery, S. Vennerstrøm, and O. A. Troshichev, Polar cap index as a proxy for hemispheric Joule heating, *Geophys. Res. Lett., 26 (8),* 1101-1104, 1999.
52. Emery, B. A., C. Lathuillere, P. G. Richards, R. G. Roble, M. J. Buonsanto, D. J. Knipp, P. Wilkinson, D. P. Sipler and R. Niciejewski, Time dependent thermospheric neutral response to the 2-11 November 1993 storm period, *J. Atmos. Solar Terr. Phys., 61*, 329-350, 1999.

53. Knipp, D. J. (1998), Foreword [to Special Section on The November 1993 Geomagnetic Storm], J. Geophys. Res., 103(A11), 26193–26195, doi:10.1029/98JA01558.
54. Knipp, D. J., B. A. Emery, M. Engebretson, X. Li, A. H. McAllister, T. Mukai, S. Kokubun, G. D. Reeves, D. Evans, T. Obara, X. Pi, T. Rosenberg, A. Weatherwax, M. G. McHarg, F. Chun, K. Mosely, M. Codrescu, L. Lanzerotti, F. J. Rich, J. Sharber and P Wilkinson, "An overview of the early November 1993 geomagnetic storm," *J. Geophys. Res, 103, 26197,* 1998.
55. McAllister, A.H., D. Knipp, N. U. Crooker, T. Mukai, and S. Kokubun, "Identification of solar drivers: The 3-4 November 1993 geomagnetic storm," *J. Geophys. Res, 103, 26221,* 1998.
56. Lui, A. T. Y., D. J., Williams, R. W., McEntire, S. P. Christon, A. B. Gavin, and D. J. Knipp, "Energetic Ion composition and charge state of solar wind plasma during the November 3, 1993, magnetic storm," *J. Geophys. Res, 103, 26235,* 1998.
57. Kozyra, J. U., V. K. Jordanova, J. E. Borovosky, M. F. Thomsen, D. J. Knipp, D. S. Evans, D. J. McComas and T. E. Cayton, "Effects of a high-density plasma sheet on ring current development during the November 2-6 1993, magnetic storm," *J. Geophys. Res, 103, 26285,* 1998.
58. Borovsky, J., M. F. Thomsen, D. J. McComas, T.E. Cayton, and D. J. Knipp, "Magnetospheric dynamics and mass flow during the November 1993 storm," *J. Geophys. Res, 103,* 26373*,* 1998.
59. Knipp, D. J. and B. A. Emery, "Report on the Community Study of the Early November 1993 Geomagnetic Storm," *Adv. Space Res., 22*, 41, 1998.
60. Knipp, D. J. and B. A. Emery, "Mapping Ionospheric Substorm Response," *Adv. Space Res*., *20*, 895, 1997.
61. Taylor, J. R., M. Lester, T. K. Yeoman, B. Emery, D. J. Knipp, D. Orr, S. I. Solovyer, and T. J., Hughes, "The Response of the Magnetosphere to the Passage of a Coronal Mass Ejection on March 20-21 1990," *Ann. Geophys*., *15*, 671, 1997.
62. Knipp, D. J. and B. A. Emery, "Polar Cap Contraction Associated with the Edge of a Magnetic Cloud," *Geophys. Res. Lett.,* 23, 305, 1996.
63. Knipp, D. J., B. A. Emery, A. D. Richmond, and M. R. Hairston, "Mapping Ionospheric Convection Response to IMF B_y Negative and B_z positive Conditions," *J. Atmos. Terr. Phys*., 1994.
64. Knipp, D. J., et al., Ionospheric Response to Slow, Strong Variations During a Northward Interplanetary Magnetic Field: A Case Study for 14 January 1988," *J. Geophys. Res*., 1993.
65. Knipp, D. J., A. D. Richmond, B. Emery, N. U. Cooker, O. de la Beaujardiere, D. Evans, and H. Kroehl, "Ionospheric Convection Response to Changing IMF Direction," *Geophys. Res*. *Lett*, 18, 721, 1991.
66. G. Crowley, B. A. Emery, R. G. Roble, H. C. Carlson, and D. J. Knipp, "Thermospheric Dynamics During September 18-19, 1984, 1. Model Simulations," *J. Geophys. Res*., 94, 16925 1989.
67. Knipp, D. J., A. D. Richmond, G. Crowley, O. de la Beaujardiere, E. Friis-Christensen, D. S. Evans, J.C. Foster, I. W. McCrea, F. J. Rich, and J. A. Waldock, "Electrodynamics Patterns for September 19, 1984," *J. Geophys. Res*, 94, 16913, 1989.

PAPERS IN PRESS, REVISION, REVIEW AND PREPARATION

Shi, Y., D. J. Knipp, T. Matsuo, L. Kilcommons and B. Anderson, B. Zhang, Extreme Inter-hemispheric Field-aligned Currents Asymmetry During Geomagnetic Quite Revealed in AMIENext and MHD Model Results to be submitted to Journal of Geophysical Research.

Li, Z. D. J. Knipp, W. Wang, Understanding the behaviors of thermospheric Nitric Oxide cooling during the 15 May 2005 geomagnetic storm, Accepted, Journal of Geophysical Research.

CONFERENCE PROCEEDINGS & PAPERS

Reviewed:

1. Knipp, Delores, J., Devin J. Della-Rose, Omar Nava, and W. Kent Tobiska, Long- and Short-Term Variations in Thermospheric Heating Sources, AIAA 2005 Reno Nevada
2. Jeffrey Forbes, Sean Bruinsma, Delores Knipp, Jiuhou Lei, Xiaoli Zhang, Eric Sutton, and R. Nerem. Response characteristics of orbit-mean satellite drag to varying geomagnetic conditions AIAA/AAS 2008 Astrodynamics Specialist Conference and Exhibit, Honolulu, HI https://doi.org/10.2514/6.2008-6945

Non-Reviewed:

3. Knipp, Delores and Patrick Market, Where and why does space weather occur?, 86th AMS Annual Meeting, 2006 Atlanta GA

POPULAR PRESS, REVIEWED EDITORIALS, EDITOR'S VOX AND BOOK REVIEWS

4. Knipp, D. J. and Lanzerotti, L. (2006), The Important Role of Data Centers in Space Climate and Weather. Space Weather, 4: DOI: 10.1029/2006SW000233
5. Tretkoff, E. (2010), Teaching Space Weather to Undergraduates: An Interview with Delores Knipp. Space Weather, 8: n/a. doi: 10.1029/2010SW000610
6. Knipp, D. J. (2012), Review of "Future Global Shocks: Geomagnetic Storms". Space Weather, 10: n/a. doi: 10.1029/2011SW000747
7. Knipp, D. J. (2014), Space Weather Journal: Retrospective and Prospective, Space Weather, 12, 567–567, doi:10.1002/2014SW001128
8. Knipp, D. J. (2015), Space Weather and Citizen Science, Space Weather, 13, 97–98, doi: 10.1002/2015SW001167.
9. Knipp, D., and W. Lotko (2015), Now Is the Time to be Heard!, Space Weather, 13, 251–252. doi:10.1002/2015SW001207.
10. Knipp D. J. (2105), Celebrating Accomplishments and Anniversaries of Space Weather Observations and Forecasting. Space Weather 13(6):357-358
11. Knipp, D. J., and L. J. Lanzerotti (2015), Appreciation of *Space Weather* Peer Reviewers for 201 Space Weather, 13, 395–395, doi:10.1002/2015SW001253.
12. Knipp, D. J. (2016), Advances in Space Weather Ensemble Forecasting, Space Weather, 14, 52–53, doi:10.1002/2016SW001366.
13. Knipp, D. J. (2016) Space Weather Research and Forecasting Act Introduced to Senate, Eos Editor's Vox
14. Knipp, D. J., and B. L. Giles (2016), Global Positioning System Energetic Particle Data: The Next Space Weather Data Revolution, Space Weather, 14, 526–527, doi:10.1002/2016SW001483.
15. Carter, B and D. J. Knipp, (2016) It's never been more important to keep an eye on space weather, https://theconversation.com/its-never-been-more-important-to-keep-an-eye-on-space-weather-65648, Theconversation.com > 16,000 reads
16. Hapgood, M., and D. J. Knipp (2016), Data Citation and Availability: Striking a Balance Between the Ideal and the Practical, Space Weather, 14, doi:10.1002/2016SW001553.
17. Knipp, D. J. (2017) Global Positioning System Sparks New Data Revolution, Eos Editor's Vox, https://eos.org/editors-vox/global-positioning-system-sparks-new-data-revolution
18. Knipp, D. J. *(*2017*),* Space Weather Editors in Transition: Hail and Farewell*,* Space Weather*,* 15*,* 279*, doi:*10.1002/2017SW001611*.*
19. Knipp, D. J., M. A. Hapgood, D. Welling, and T. Paul O'Brien (2017), Thank You to Space Weather Peer Reviewers, Space Weather, 15, 542–544, doi:10.1002/2017SW001621.

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DATA SETS

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