

List of Refereed Publications  
Lynn B. Wilson III

## References

- [1] Wilson III, L. B., C. Cattell, P. J. Kellogg, K. Goetz, K. Kersten, L. Hanson, R. MacGregor, and J. C. Kasper (2007), Waves in Interplanetary Shocks: A Wind/WAVES Study, *Phys. Rev. Lett.*, **99**(4), 041101, [10.1103/PhysRevLett.99.041101](https://doi.org/10.1103/PhysRevLett.99.041101).
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- [31] Osmane, A., L. B. Wilson III, L. Blum, and T. I. Pulkkinen (2016), On the Connection between Microbursts and Nonlinear Electronic Structures in Planetary Radiation Belts, *Astrophys. J.*, **816**(2), 51–60, [10.3847/0004-637X/816/2/51](https://doi.org/10.3847/0004-637X/816/2/51).
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**List of Non-refereed Talks/Presentations**  
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- [74] Wilson III, L. B., Koval, A., Szabo, A., Breneman, A., Cattell, C. A., Goetz, K., Kellogg, P. J., Kersten, K., Kasper, J. C., Maruca, B. A. & Pulupa, M. Search Coil vs. Fluxgate Magnetometer Measurements at Interplanetary Shocks. *SHINE* (2012). URL <http://shinecon.org/shine2012/abstractlisting.php>. June 25-29, 2012, Hawaii.
- [75] Wilson III, L. B., Sibeck, D. G., Breneman, A., Le Contel, O., Cully, C. & Angelopoulos, V. THEMIS observations of gyrating ions and electromagnetic waves at the bow shock. *3rd Cluster THEMIS Workshop* (2012). URL [http://caa.estec.esa.int/wksp/cluster\\_workshop22\\_posters.xml](http://caa.estec.esa.int/wksp/cluster_workshop22_posters.xml). Oct. 1-5, 2012, Boulder, CO.
- [76] Breneman, A. W., Cattell, C. A., Wilson III, L. B., Kersten, K., Goetz, K. & Paradise, A. STEREO observations of waves near the ramp region of interplanetary shocks. *AGU Fall Meeting Abstracts* B2208 (2012). Dec. 3-7, San Francisco, CA.
- [77] Collinson, G. A., Masters, A., Shane, N., Wilson III, L. B., Slavin, J. A., Zhang, T. L., Moore, T. E., Sarantos, M., Boardsen, S. A. & Barabash, S. New discoveries in the Venusian Foreshock. *AGU Fall Meeting Abstracts* A2231 (2012). Dec. 3-7, San Francisco, CA.



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- [78] Malaspina, D. M., Newman, D. L., Wilson III, L. B., Goetz, K., Kellogg, P. J. & Kersten, K. Observations of Electrostatic Solitary Waves as Evidence of Kinetic Instabilities and Magnetic Reconnection at Solar Wind Current Sheets. *AGU Fall Meeting Abstracts* B2271 (2012). Dec. 3-7, San Francisco, CA.
- [79] Tang, X., Cattell, C. A., Dombek, J. P., Dai, L., Wilson III, L. B., Breneman, A. W. & Hupach, A. J. THEMIS Observations of Plasma Waves near the Diffusion Region of Dayside Magnetopause Reconnection. *AGU Fall Meeting Abstracts* A2240 (2012). Dec. 3-7, San Francisco, CA.
- [80] Wilson III, L. B., Koval, A., Sibeck, D. G., Szabo, A., Cattell, C. A., Kasper, J. C., Maruca, B. A., Pulupa, M., Salem, C. S. & Wilber, M. Shocklets, SLAMS, and field-aligned ion beams in the terrestrial foreshock. *AGU Fall Meeting Abstracts* B2206 (2012).
- [81] Yu, W., Farrugia, C. J., Galvin, A. B., Lugaz, N., Möstl, C., Kilpua, E. K. J., Simunac, K. D. C., Luhmann, J. G., Torbert, R. B., Szabo, A., Wilson III, L. B., Ogilvie, K. W., Lepping, R. P. & Sauvaud, J.-A. Analysis of Properties of Small Transients in the Solar Wind in 2007-2009: Wind Observations. *EGU General Assembly 2013* **15**, 6967 (2013). URL <http://meetingorganizer.copernicus.org/EGU2013/EGU2013-6967.pdf>. Held 07-12 April, 2013 in Vienna, Austria.
- [82] Pulupa, M. P., Bale, S. D., Opitz, A., Fedorov, A., Sauvaud, J.-A. & Wilson III, L. B. Electron observations and wave activity at shocks in the solar wind. *AGU Meeting of the Americas* SH32A-02 (2013). URL <http://moa.agu.org/2013/scientific-program/>. May 14-17, Cancun, Mexico.
- [83] Paradise, A., Breneman, A. W., Cattell, C. A., Wilson III, L. B., Kersten, K., Kellogg, P. J., Goetz, K. & Schreiner, S. STEREO and Wind Observations of Intense Cyclotron Harmonic Waves at the Earth's Bow Shock. *AGU Fall Meeting Abstracts* SM31A-2123 (2013). Dec. 9-13, 2013, San Francisco, CA.
- [84] Tang, X., Cattell, C. A. & Wilson III, L. B. THEMIS observations of the magnetopause electron diffusion region and magnetospheric separatrix: Large amplitude waves and heated particles. *AGU Fall Meeting Abstracts* SM11B-2078 (2013). Dec. 9-13, 2013, San Francisco, CA.
- [85] Wilson III, L. B., Sibeck, D. G., Breneman, A. W., Le Contel, O., Cully, C. M., Turner, D. L., Angelopoulos, V. & Malaspina, D. M. Quantified Energy Dissipation Rates in the Terrestrial Bow Shock. *AGU Fall Meeting Abstracts* SM31A-2107 (2013). Dec. 9-13, 2013, San Francisco, CA.
- [86] Wilson III, L. B., Sibeck, D. G., Breneman, A. W., Le Contel, O., Cully, C., Turner, D. L., Angelopoulos, V. & Malaspina, D. M. Quantified Energy Dissipation Rates in the Terrestrial Bow Shock. *THEMIS/ARTEMIS/Van Allen Probes SWG Meeting Spring 2014* (2014). URL [http://themis.igpp.ucla.edu/events\\_spring2014swg.shtml](http://themis.igpp.ucla.edu/events_spring2014swg.shtml). Mar. 10-14, 2014, Applied Physics Laboratory, Johns Hopkins University, Laurel, MD.

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- [87] Wilson III, L. B., Sibeck, D. G., Breneman, A. W., Le Contel, O., Cully, C., Turner, D. L., Angelopoulos, V. & Malaspina, D. M. Quantified Energy Dissipation Rates in the Terrestrial Bow Shock. *2014 SHINE Conference* (2014). URL <http://shinecon.org/shine2014/abstractlisting.php>. June 23rd- 27th, 2014, Telluride, CO.
- [88] Yu, W., Farrugia, C. J., Lugaz, N., Galvin, A. B., Leitner, M., Sonnerup, B. U. Ö., Möstl, C., Luhmann, J. G. & Wilson III, L. B. On modeling flux ropetype small interplanetary transients by nonforcefree methods. *2014 SHINE Conference* (2014). URL <http://shinecon.org/shine2014/abstractlisting.php>. June 23rd- 27th, 2014, Telluride, CO.
- [89] Wilson III, L. B., Sibeck, D. G., Breneman, A. W., Le Contel, O., Cully, C., Turner, D. L., Angelopoulos, V. & Malaspina, D. M. Quantified Energy Dissipation Rates in the Terrestrial Bow Shock. *AOGS-AGU (WPGM) Joint Assembly ST07-A002* (2014). URL <http://www.asiaoceania.org/aogs2014/>. July 28 - August 1, 2014, Sapporo, Japan.
- [90] Breneman, A. W., Cattell, C. A., Kersten, K., Paradise, A., Schreiner, S., Kellogg, P. J., Goetz, K. & Wilson III, L. B. STEREO and wind observations of intense electron cyclotron harmonic waves at the Earth's bow shock and inside the magnetosheath. *Union Radio-Scientifique Internationale General Assembly 1* (2014). 2014 XXXIth URSI, Aug. 16-23, 2014, Beijing, China.
- [91] Kempf, Y., Gutynska, O., Pokhotelov, D., Wilson III, L. B., Walsh, B. M., von Alfthan, S., Sibeck, D. G. & Palmroth, M. Ion distributions in the Earth's foreshock region: hybrid-Vlasov simulations and spacecraft observations. *Union Radio-Scientifique Internationale General Assembly 1* (2014). 2014 XXXIth URSI, Aug. 16-23, 2014, Beijing, China.
- [92] Hoilijoki, S., Walsh, B., Kempf, Y., von Alfthan, S., Gutynska, O., Wilson III, L. B., Hannuksela, O., Ganse, U., Sibeck, D. & Palmroth, M. Formation and Evolution of Mirror Mode Type Fluctuations in the Earth's Magnetosheath in Global Hybrid-Vlasov Simulations. *AGU Fall Meeting Abstracts SM41A-4231* (2014). Dec. 15-19, 2014, San Francisco, CA.
- [93] Muzamil, F. M., Farrugia, C. J., Torbert, R. B., Pritchett, P. R., Mozer, F. S., Scudder, J. D., Russell, C. T., Sandholt, P. E., Denig, W. F. & Wilson III, L. B. A Statistical View of the Effect of Density Asymmetry and Guide Field on the Structure of the Reconnection Layer Poleward of the Cusp. *AGU Fall Meeting Abstracts SM12B-08* (2014). Dec. 15-19, 2014, San Francisco, CA.
- [94] Tang, X., Cattell, C. A., Wilson III, L. B. & Alexander, R. J. First simultaneous observations of lower hybrid, whistler mode, electrostatic solitary and electron cyclotron waves near the Earth's magnetopause. *AGU Fall Meeting Abstracts SM41A-4224* (2014). Dec. 15-19, 2014, San Francisco, CA.
- [95] Wilson III, L. B., Breneman, A. W., Malaspina, D. M., Le Contel, O. & Cully, C. M. Current-Driven Instabilities and Energy Dissipation Rates as a Predictive Tool for Solar

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- Probe Plus. *AGU Fall Meeting Abstracts* SM41A-4232 (2014). Dec. 15-19, 2014, San Francisco, CA.
- [96] Yu, W., Farrugia, C. J., Lugaz, N., Galvin, A. B., Leitner, M., Möstl, C., Nieves-Chinchilla, T., Luhmann, J. G. & Wilson III, L. B. On Modeling Flux Rope-type Small Interplanetary Transients by Non-Force Free Methods. *AGU Fall Meeting Abstracts* SH31A-4105 (2014). Dec. 15-19, 2014, San Francisco, CA.
- [97] Kanekal, S., Baker, D., Blake, B., Califf, S., Claudepierre, S., Elkington, S., Fennell, J. F., Jaynes, A., Jones, A., Kletzing, C., Li, X., Reeves, G., Spence, H. & Wilson III, L. B. Observation of Prompt Energization to ultra relativistic energies by the March 2015 interplanetary shock. *RBSP Science Working Group Meeting* (2015). URL [http://rbspgway.jhuapl.edu/rbsp\\_SWG\\_Jul\\_2015](http://rbspgway.jhuapl.edu/rbsp_SWG_Jul_2015). July 29–31, 2015, Applied Physics Laboratory, Laurel, MD.
- [98] Markevitch, M., Wilson III, L. B., Jones, T. W., Ryu, D., Brunetti, G. & Oh, P. Microphysics of Intracuster Plasma with a High Angular Resolution Microcalorimetric Array. In *X-Ray Vision Workshop: Probing the Universe in Depth and Detail with the X-Ray Surveyor (X-Ray Vision Workshop)*, National Museum of the American Indian, Washington, DC, USA, 6-8 October 2015, article id.15, 15 (2015).
- [99] Djordjevic, B., Maruca, B. A., Bale, S. D., Wilson III, L. B. & Larson, D. Non-linear analysis of PESA-Low electrostatic analyzer data and solar wind temperature anisotropies. *AGU Fall Meeting Abstracts* SH53B-2510 (2015). Dec. 14-18, 2015, San Francisco, CA.
- [100] Kanekal, S., Baker, D., Blake, B., Califf, S., Claudepierre, S., Elkington, S., Fennell, J. F., Jaynes, A., Jones, A., Kletzing, C., Li, X., Reeves, G., Spence, H. & Wilson III, L. B. Near Instantaneous Energization of Electrons to Ultra-relativistic Energies in the Earth's Radiation Belts during the Strong Shock event of 17 March 2015. *AGU Fall Meeting Abstracts* SM44B-09 (2015). Dec. 14-18, 2015, San Francisco, CA.
- [101] Koval, A., Wilson III, L. B., Szabo, A., Kasper, J. C., Stevens, M., Case, A. & Biesecker, D. Interplanetary Shocks Observed by the DSCOVR Spacecraft. *AGU Fall Meeting Abstracts* SH22B-05 (2015). Dec. 14-18, 2015, San Francisco, CA.
- [102] Osmane, A., Wilson III, L. B., Blum, L. & Pulkkinen, T. I. On the connection between large-amplitude whistlers, microbursts and nonlinear kinetic structures in the Earth's Radiation Belt. *AGU Fall Meeting Abstracts* SM21B-2527 (2015). Dec. 14-18, 2015, San Francisco, CA.
- [103] Wilson III, L. B. & Turner, D. L. Electron Acceleration by Transient Ion Foreshock Phenomena. *AGU Fall Meeting Abstracts* SM13C-2509 (2015). Dec. 14-18, 2015, San Francisco, CA.
- [104] Goncharov, O., Němeček, Z., Šafránková, J., Přech, L., Koval, A., Wilson III, L. B. & Zastenker, G. N. Waves associated with interplanetary shocks: Types and properties. In *EGU General Assembly Conference Abstracts*, vol. 18 of *EGU General Assembly*

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- Conference Abstracts*, 3009 (2016). URL <http://meetingorganizer.copernicus.org/EGU2016/EGU2016-3009-1.pdf>. April 17–22, 2016, Vienna, Austria.
- [105] Koval, A., Wilson III, L. B., Szabo, A., Kasper, J. C., Stevens, M., Case, A. & Biesecker, D. DSCOVR Observations of Waves at Interplanetary Shocks. In *EGU General Assembly Conference Abstracts*, vol. 18 of *EGU General Assembly Conference Abstracts*, 11410 (2016). URL <http://meetingorganizer.copernicus.org/EGU2016/EGU2016-11410.pdf>. April 17–22, 2016, Vienna, Austria.
- [106] Markevitch, M. L., Wilson III, L., Jones, T. W., Ryu, D., Brunetti, G. & Oh, S. P. Microphysics of intracluster plasma with an X-ray microcalorimeter. In *AAS/High Energy Astrophysics Division*, vol. 15 of *AAS/High Energy Astrophysics Division*, 101.04 (2016).
- [107] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by foreshock disturbances. *2016 SHINE Conference* (2016). URL <http://shinecon.org/shine2016/abstractlisting.php>. July 11th - 15th, 2016, Santa Fe, NM.
- [108] Malaspina, D. M. & Wilson III, L. B. The Wind Dust Database: 22 Years Of Interplanetary And Interstellar Dust Observations at 1 AU. *Dusty Visions Workshop* (2016). URL <http://impact.colorado.edu/DustyVisions2016.html>. July 22–24, 2016, Boulder, CO.
- [109] Markevitch, M., Wilson III, L. B. *et al.* Microphysics of intracluster plasma with high-resolution X-ray spectroscopy. In *41st COSPAR Scientific Assembly*, vol. 41 of *COSPAR* (2016). URL <https://www.cospar-assembly.org>. July 30 – August 7, 2016, Istanbul, Turkey.
- [110] Malaspina, D. M. & Wilson III, L. B. The Wind Dust Database: 22 Years Of Interplanetary And Interstellar Dust Observations at 1 AU. *AOGS-AGU (WPGM) Joint Assembly* PS18–A002 (2016). URL <http://www.asiaoceania.org/aogs2016/>. July 31 - August 5, 2016, Beijing, China.
- [111] Wilson III, L. B. Relativistic electrons produced by foreshock disturbances observed upstream of the Earth’s bow shock. *RBSP Seminar* (2016). Nov. 16, 2016, Goddard Space Flight Center, Informal RBSP Group Presentation.
- [112] Alterman, B. L., Stevens, M., Kasper, J. C., Koval, A. & Wilson III, L. B. Alfvénicity of Ion Drifts at 1AU. *AGU Fall Meeting Abstracts* SH51D–2611 (2016). Dec. 12–16, 2016, San Francisco, CA.
- [113] Chen, L.-J., Hesse, M., Wang, S., Ergun, R. E., Bessho, N., Burch, J. L., Gershman, D. J., Torbert, R. B., Wilson III, L. B., Dorelli, J., Giles, B. L., Pollock, C. J. & Moore, T. Physics of the diffusion region in the Magnetospheric Multiscale era. *AGU Fall Meeting Abstracts* SM13D–03 (2016). Dec. 12–16, 2016, San Francisco, CA.

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- [114] Jones, A. D., Kanekal, S. G., Baker, D. N., Schiller, Q., Li, W. & Wilson III, L. B. Quantifying the contribution of microbursts to global electron loss. *AGU Fall Meeting Abstracts* SM31B–2493 (2016). Dec. 12-16, 2016, San Francisco, CA.
- [115] Randol, B. M., Christian, E. R. & Wilson III, L. B. Observations of thermal and suprathermal tail ions from WIND. *AGU Fall Meeting Abstracts* SH13D–06 (2016). Dec. 12-16, 2016, San Francisco, CA.
- [116] Wang, S., Chen, L.-J., Hesse, M., Wilson III, L. B., Bessho, N., Gershman, D. J., Dorelli, J., Giles, B. L., Torbert, R. B., Pollock, C. J., Strangeway, R., Ergun, R., Burch, J. L., Avanov, L. A., Lavraud, B., Moore, T. E. & Saito, Y. Effects of Lower-hybrid Waves on Electron And Ion Heating During Asymmetric Reconnection. *AGU Fall Meeting Abstracts* SM31C–04 (2016). Dec. 12-16, 2016, San Francisco, CA.
- [117] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by transient ion foreshock phenomena. *AGU Fall Meeting Abstracts* SH21A–2504 (2016). Dec. 12-16, 2016, San Francisco, CA.
- [118] Turner, D. L., L. B. Wilson III, et al. (2017), A case study of a hot flow anomaly observed by MMS, *2017 Geospace Environment Modeling Workshop*, jun. 18–23, 2017, Portsmouth, VA.

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- [119] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Goetz, K., Kersten, K., Kasper, J. C., Szabo, A. & Wilber, M. Atypical Waves and Particle Heating at an Interplanetary Shock (2010). Heliophysics Science Seminar, NASA Goddard Space Flight Center, Apr. 1st, 2010.
- [120] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Goetz, K., Kersten, K., Kasper, J. C., Szabo, A. & Wilber, M. Atypical Waves and Particle Heating at an Interplanetary Shock (2010). Space Physics Seminar, University of California at Berkeley, Oct. 5th, 2010.
- [121] Cattell, C. A., Breneman, A. W., Kersten, K., Kellogg, P. J., Goetz, K., Wygant, J. R., Wilson III, L. B., Looper, M., Blake, J. B. & Roth, I. Large Amplitude Whistler Waves and Electron Energization in Earth's Radiation Belts (2011). Chapman Conference: Dynamics of the Earth's Radiation Belts and Inner Magnetosphere, July 17-22, 2011.
- [122] Wilson III, L. B., Koval, A., Szabo, A., Cattell, C. A., Breneman, A., Goetz, K., Kellogg, P. J., Kersten, K., Kasper, J. C., Maruca, B. A. & Pulupa, M. Electromagnetic lower hybrid waves, whistler waves, and particle heating/acceleration at supercritical interplanetary shocks (2011). Space Physics Seminar, University of California at Berkeley, Jul. 18th, 2011.
- [123] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Wygant, J. R., Goetz, K., Breneman, A. & Kersten, K. The properties of large amplitude whistler mode waves in the magnetosphere: propagation and relationship with geomagnetic activity (2011). RBSP SGW, Applied Physics Laboratory, Oct. 21st, 2011.
- [124] Wilson III, L. B., Koval, A., Szabo, A., Breneman, A., Cattell, C. A., Goetz, K., Kellogg, P. J., Kersten, K., Kasper, J. C., Maruca, B. A. & Pulupa, M. Observations of Electromagnetic Whistler Precursors at Supercritical Interplanetary Shocks (2012). Space Physics Seminar, University of Minnesota, Mar. 7th, 2012.
- [125] Wilson III, L. B., Koval, A., Szabo, A., Breneman, A., Cattell, C. A., Goetz, K., Kellogg, P. J., Kersten, K., Kasper, J. C., Maruca, B. A. & Pulupa, M. Observations of Electromagnetic Whistler Precursors at Supercritical Interplanetary Shocks (2012). Space Physics Seminar, Dartmouth College, May 1st, 2012.
- [126] Russell, C. T., Jian, L. K., Wei, H., Wilson III, L. B., Omid, N., Szabo, A. & Luhmann, J. G. Long-Period Investigation of Ion Cyclotron Waves in the Solar Wind at 1 AU (Invited). *AOGS-AGU (WPGM) Joint Assembly* ST29-A015 (2012). URL <http://www.asiaoceania.org/society/index.asp>. August 13-17, 2012, Singapore.
- [127] Wilson III, L. B., Koval, A., Szabo, A., Breneman, A., Cattell, C. A., Goetz, K., Kellogg, P. J., Kersten, K., Kasper, J. C., Maruca, B. A. & Pulupa, M. Observations of Electromagnetic Whistler Precursors at Supercritical Interplanetary Shocks (2012). Space Physics Seminar, University of California at Los Angeles, Sept. 28th, 2012.
- [128] Wilson III, L. B., Sibeck, D. G., Breneman, A. W., Le Contel, O., Cully, C., Turner, D. L. & Angelopoulos, V. Quantified Energy Dissipation Rates in the Terrestrial Bow



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- Shock (invited) (2013). 8th European Workshop on Collisionless Shocks, Paris, France, June 5th, 2013.
- [129] Wilson III, L. B., Koval, A., Sibeck, D. G., Szabo, A., Cattell, C. A., Kasper, J. C., Maruca, B. A., Pulupa, M., Salem, C. S. & Wilber, M. Shocklets, SLAMS, and field-aligned ion beams in the terrestrial foreshock (invited) (2013). 8th European Workshop on Collisionless Shocks, Paris, France, June 5th, 2013.
- [130] Wilson III, L. B., Koval, A., Szabo, A., Breneman, A., Cattell, C. A., Goetz, K., Kellogg, P. J., Kersten, K., Kasper, J. C., Maruca, B. A. & Pulupa, M. Observations of Electromagnetic Whistler Precursors at Supercritical Interplanetary Shocks (invited) (2013). 8th European Workshop on Collisionless Shocks, Paris, France, June 7th, 2013.
- [131] Turner, D. L., Angelopoulos, V., Omidi, N., Wilson III, L. B., Hietala, H., Kellerman, A. C. & Weygand, J. M. Foreshock bubbles and their global impacts on Earth's magnetosphere-ionosphere system (Invited). *AGU Fall Meeting Abstracts* SM13C-01 (2013). Dec. 9-13, 2013, San Francisco, CA.
- [132] Turner, D. L., Angelopoulos, V., Wilson III, L. B., Hietala, H., Omidi, N. & Masters, A. Particle acceleration during interactions between transient ion foreshock phenomena and Earth's bow shock (solicited). In *EGU General Assembly Conference Abstracts*, vol. 16 of *EGU General Assembly Conference Abstracts*, 2276 (2014). URL <http://meetingorganizer.copernicus.org/EGU2014/EGU2014-2276.pdf>. April 27 – May 2, 2014, Vienna, Austria.
- [133] Wilson III, L. B., Breneman, A. W., Cattell, C. A., Goetz, K., Kellogg, P. J., Le Contel, O., Cully, C., Turner, D. L. & Malaspina, D. M. Wave activity within the ramp of collisionless shock waves: recent results (invited). *AOGS-AGU (WPGM) Joint Assembly* ST07-A001 (2014). URL <http://www.asiaoceania.org/aogs2014/>. July 28 - August 1, 2014, Sapporo, Japan.
- [134] Wilson III, L. B. Collisionless Shock Waves and Wave-Particle Interactions (plenary). *2014 LWS Science Meeting: Evolving Solar Activity and Its Influence on Space and Earth* (2014). URL <http://lws-sdo-workshops.org>. Nov. 2–6, 2014, Portland, Oregon.
- [135] Wilson III, L. B. Collisionless shocks in the interplanetary medium (lecture). *8th Korean Astrophysics Workshop on Astrophysics* (2014). URL <http://sirius.unist.ac.kr/kaw8/>. Nov. 10–13, 2014, Jeju Island, Korea.
- [136] Wilson III, L. B. Wave-particle interactions at collisionless shock waves (invited). *8th Korean Astrophysics Workshop on Astrophysics* (2014). URL <http://sirius.unist.ac.kr/kaw8/>. Nov. 10–13, 2014, Jeju Island, Korea.
- [137] Wilson III, L. B. Quantified Energy Dissipation Rates in the Terrestrial Bow Shock. *APL Space Physics Seminar* (2014). URL <http://www.jhuapl.edu>. Nov. 17, 2014, Applied Physics Laboratory.



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- [138] Turner, D. L., Liu, Z., Angelopoulos, V., Omid, N., Wilson III, L. B., Archer, M. O., Hietala, H. & Osmane, A. Pressure variations and particle acceleration associated with foreshock bubbles and hot flow anomalies (Invited). *AGU Fall Meeting Abstracts* SM52A-04 (2014). Dec. 15-19, 2014, San Francisco, CA.
- [139] Wilson III, L. B. Particle acceleration through wave-particle interactions (invited). *Accelerating Cosmic Ray Comprehension* (2015). URL <http://www.astro.princeton.edu/acrc15/>. Apr. 13–16, 2015, Princeton Center for Theoretical Physics, Princeton, NJ.
- [140] Turner, D. L., Archer, M. O., Hietala, H., Plaschke, F., Wilson III, L. B. & Omid, N. Do magnetospheric scientists take the magnetosheath for granted? (Invited). *Unsolved Problems of Magnetospheric Physics* (2015). URL <http://spacescience.org/upmpw/>. Sep. 6-12, 2015, Scarborough, UK.
- [141] Wilson III, L. B. Particle Acceleration through Wave-Particle Interactions (invited). *Unsolved Problems of Magnetospheric Physics* (2015). URL <http://spacescience.org/upmpw/>. Sep. 6-12, 2015, Scarborough, UK.
- [142] Wilson III, L. B. Energy dissipation at the terrestrial bow shock (invited). *Cluster 25th Workshop* (2015). URL [http://caa.estec.esa.int/wksp/cluster\\_workshop25\\_main.xml](http://caa.estec.esa.int/wksp/cluster_workshop25_main.xml). Oct. 12-15, 2015, Venice, Italy.
- [143] Wilson III, L. B. Energy dissipation at the terrestrial bow shock (invited) (2016). URL <http://lasp.colorado.edu/home/about/events/magnetosphere-seminars/>. Friends of the Magnetosphere (FOM) Seminar, Mar. 29, 2016, Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado Boulder.
- [144] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by foreshock disturbances (invited) (2016). URL <http://lasp.colorado.edu/home/about/events/science-seminars/>. LASP Science Seminar, Mar. 31, 2016, Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado Boulder.
- [145] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by foreshock disturbances (invited) (2016). URL <https://www.princeton.edu/astro/>. Astropasmas Seminar, Apr. 15, 2016, Department of Astrophysical Sciences, Princeton University.
- [146] Turner, D. L., T. Z. Liu, L. B. Wilson III, H. Hietala, N. Omid, and V. Angelopoulos (2016), Transient ion foreshock phenomena on Earth's dayside (invited), *ISROSES-III Meeting*, sep. 11–16, 2016, Golden Sands, Bulgaria.
- [147] Wilson III, L. B. Gradients as Antennas: A General Wave Source. *Van Allen Probes SWG Meeting* (2016). URL [http://rbspgway.jhuapl.edu/general\\_meetings](http://rbspgway.jhuapl.edu/general_meetings). Oct. 26–28, 2016, Applied Physics Laboratory, Johns Hopkins University, Laurel, MD.

**List of Invited Talks/Presentations**  
**Lynn B. Wilson III**

- [148] Wilson III, L. B. Unexpected Discovery in Shock Acceleration: Answers to a 60 Year Old Question. *“Science in 7” Presentations* (2016). Oct. 17, 2016, Goddard Space Flight Center, Invited Presentation for the Sciences and Exploration Directorate Executive Council.
- [149] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by foreshock disturbances (invited). *4th Cluster THEMIS Workshop* (2016). URL [http://themis.igpp.ucla.edu/events\\_Cluster\\_THEMIS2016.shtml](http://themis.igpp.ucla.edu/events_Cluster_THEMIS2016.shtml). Nov. 7-12, 2016, Palm Springs, CA.
- [150] Wilson III, L. B. Heliophysics Data Production and Use. *Heliophysics Director’s Seminar* (2016). Nov. 18, 2016, Goddard Space Flight Center, Presentation for the Sciences and Exploration Directorate Director.
- [151] Wilson III, L. B. Unexpected Discovery in Shock Acceleration: Answers to a 60 Year Old Question. *SMD Monthly Status Review* (2016). Dec. 8, 2016, NASA Headquarters, Invited Presentation for the Science Mission Directorate.
- [152] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by foreshock disturbances (invited). *10th International Nonlinear Wave and Chaos Workshop* **10** (2017). URL <http://workshops.agu.org/nonlinear-waves-chaos/welcome/>. Mar. 20–24, 2017, San Diego, CA.
- [153] Wilson III, L. B., D. G. Sibeck, D. L. Turner, A. Osmane, D. Caprioli, and V. Angelopoulos (2017), Relativistic electrons produced by foreshock disturbances observed upstream of the Earth’s bow shock (invited and highlighted by EGU), in *EGU General Assembly Conference Abstracts, EGU General Assembly Conference Abstracts*, vol. 19, p. 143, apr. 23–28, 2017, Vienna, Austria.
- [154] Wilson III, L. B. (2017), Shock Acceleration: An Unexpected Discovery Addresses a ~60 Year Old Question, *Heliophysics Director’s Seminar*, apr. 21, 2017, Goddard Space Flight Center, Presentation for the Sciences and Exploration Directorate Director.
- [155] Turner, D. L., S. J. Schwartz, L. B. Wilson III, A. Osmane, J. F. Fennell, J. B. Blake, A. N. Jaynes, I. Cohen, B. Mauk, D. J. Gershman, L. A. Avanov, B. L. Giles, K. Goodrich, R. J. Strangeway, R. B. Torbert, and J. L. Burch (2017), Anatomy of Hot Flow Anomaly Shocks and Their Effectiveness for Energetic Particle Acceleration (invited), chapman Conference: Dayside Magnetosphere Interactions, July 10-14, 2017, Chengdu, Sichuan Province, China.