

**List of Refereed Publications**  
**Lynn B. Wilson III**

## References

- [1] Wilson III, L. B., Cattell, C., Kellogg, P. J., Goetz, K., Kersten, K., Hanson, L., MacGregor, R. & Kasper, J. C. Waves in Interplanetary Shocks: A Wind/WAVES Study. *Phys. Rev. Lett.* **99**, 041101 (2007).
- [2] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Goetz, K., Kersten, K., Kasper, J. C., Szabo, A. & Meziane, K. Low-frequency whistler waves and shocklets observed at quasi-perpendicular interplanetary shocks. *J. Geophys. Res.* **114**, 10106 (2009).
- [3] Breneman, A., Cattell, C., Schreiner, S., Kersten, K., Wilson III, L. B., Kellogg, P., Goetz, K. & Jian, L. K. Observations of large-amplitude, narrowband whistlers at stream interaction regions. *J. Geophys. Res.* **115**, 8104 (2010).
- [4] Kellogg, P. J., Cattell, C. A., Goetz, K., Monson, S. J. & Wilson III, L. B. Electron trapping and charge transport by large amplitude whistlers. *Geophys. Res. Lett.* **37**, 20106 (2010).
- [5] Wilson III, L. B. *The microphysics of collisionless shocks*. Ph.D. thesis, University of Minnesota [lynn.b.wilsoniii@gmail.com](mailto:lynn.b.wilsoniii@gmail.com) (2010). URL <http://search.proquest.com/technologycollection/docview/762748509>. Publication Number: AAT 3426498; ISBN: 9781124274577; Advisor: Cynthia Cattell.
- [6] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Goetz, K., Kersten, K., Kasper, J. C., Szabo, A. & Wilber, M. Large-amplitude electrostatic waves observed at a supercritical interplanetary shock. *J. Geophys. Res.* **115**, 12104 (2010).
- [7] Breneman, A., Cattell, C., Wygant, J., Kersten, K., Wilson III, L. B., Schreiner, S., Kellogg, P. J. & Goetz, K. Large-amplitude transmitter-associated and lightning-associated whistler waves in the Earth's inner plasmasphere at  $L < 2$ . *J. Geophys. Res.* **116**, 6310 (2011).
- [8] Cattell, C., Dombeck, J., Preiwisch, A., Thaller, S., Vo, P., Wilson III, L. B., Wygant, J., Mende, S. B., Frey, H. U., Ilie, R. & Lu, G. Observations of a high-latitude stable electron auroral emission at  $\sim 16$  MLT during a large substorm. *J. Geophys. Res.* **116**, 7215 (2011).
- [9] Kellogg, P. J., Cattell, C. A., Goetz, K., Monson, S. J. & Wilson III, L. B. Large amplitude whistlers in the magnetosphere observed with Wind-Waves. *J. Geophys. Res.* **116**, 9224 (2011).
- [10] Kersten, K., Cattell, C. A., Breneman, A., Goetz, K., Kellogg, P. J., Wygant, J. R., Wilson III, L. B., Blake, J. B., Looper, M. D. & Roth, I. Observation of relativistic electron microbursts in conjunction with intense radiation belt whistler-mode waves. *Geophys. Res. Lett.* **38**, 8107 (2011).
- [11] 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. *Geophys. Res. Lett.* **38**, 17107 (2011).

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**Lynn B. Wilson III**

- [12] Breneman, A., Cattell, C., Wygant, J., Kersten, K., Wilson III, L. B., Dai, L., Colpitts, C., Kellogg, P. J., Goetz, K. & Paradise, A. Explaining polarization reversals in STEREO wave data. *J. Geophys. Res.* **117**, 4317 (2012).
- [13] 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. *Geophys. Res. Lett.* **39**, 8109 (2012).
- [14] Collinson, G. A., Wilson III, L. B., Sibeck, D. G., Shane, N., Zhang, T. L., Moore, T. E., Coates, A. J. & Barabash, S. Short large-amplitude magnetic structures (SLAMS) at Venus. *J. Geophys. Res.* **117**, 10221 (2012).
- [15] Cattell, C. A., Breneman, A., Goetz, K., Kellogg, P. J., Kersten, K., Wygant, J. R., Wilson III, L. B., Looper, M. D., Blake, J. B. & Roth, I. Large-Amplitude Whistler Waves and Electron Acceleration in the Earth's Radiation Belts: A Review of STEREO and Wind Observations. In *Dynamics of the Earth's Radiation Belts and Inner Magnetosphere*, Summers, D., Mann, I. R., Baker, D. N. & Schulz, M. (eds.), Vol. 199 of *Geophys. Monogr. Ser.*, 41–51 (American Geophysical Union, Washington, D.C., 2012).
- [16] 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. Electromagnetic waves and electron anisotropies downstream of supercritical interplanetary shocks. *J. Geophys. Res.* **118**, 5–16 (2013).
- [17] Malaspina, D. M., Newman, D. L., Wilson III, L. B., Goetz, K., Kellogg, P. J. & Kersten, K. Electrostatic Solitary Waves in the Solar Wind: Evidence for Instability at Solar Wind Current Sheets. *J. Geophys. Res.* **118**, 591–599 (2013).
- [18] 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. *J. Geophys. Res.* **118**, 957–966 (2013).
- [19] Tang, X., Cattell, C. A., Dombeck, J. P., Dai, L., Wilson III, L. B., Breneman, A. W. & Hupach, A. J. THEMIS observations of the magnetopause electron diffusion region: Large amplitude waves and heated electrons. *Geophys. Res. Lett.* **40**, 2884–2890 (2013).
- [20] Breneman, A., Cattell, C., Kersten, K., Paradise, A., Schreiner, S., Kellogg, P. J., Goetz, K. & Wilson III, L. B. STEREO and Wind observations of intense cyclotron harmonic waves at the Earth's bow shock and inside the magnetosheath. *J. Geophys. Res.* **118**, 7654–7664 (2013).
- [21] Malaspina, D. M., Horanyi, M., Zaslavsky, A., Goetz, K., Wilson III, L. B. & Kersten, K. Interplanetary and interstellar dust observed by the Wind/WAVES electric field instrument. *Geophys. Res. Lett.* **41**, 266–272 (2014).
- [22] Yu, W., Farrugia, C. J., Lugaz, N., Galvin, A. B., Kilpua, E. K. J., Kucharek, H., Möstl, C., Leitner, M., Torbert, R. B., Simunac, K. D. C., Luhmann, J. G., Szabo, A., Wilson

**List of Refereed Publications**  
**Lynn B. Wilson III**

- III, L. B., Ogilvie, K. W. & Sauvaud, J.-A. A Statistical Analysis of Properties of Small Transients in the Solar Wind 2007-2009: STEREO and Wind Observations. *J. Geophys. Res.* **119**, 689–708 (2014).
- [23] Farrugia, C. J., Gratton, F. T., Gnani, G., Torbert, R. B. & Wilson III, L. B. A Vortical Boundary Layer for Near-Radial IMF: Wind Observations on October 24, 2001. *J. Geophys. Res.* **119**, 4572–4590 (2014).
- [24] 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: 1. Analysis Techniques and Methodology. *J. Geophys. Res.* **119**, 6455–6474 (2014).
- [25] 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: 2. Waves and Dissipation. *J. Geophys. Res.* **119**, 6475–6495 (2014).
- [26] 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. Structure of a reconnection layer poleward of the cusp: Extreme density asymmetry and a guide field. *J. Geophys. Res.* **119**, 7343–7362 (2014).
- [27] Tang, X., Cattell, C. A., Lysak, R., Wilson III, L. B., Dai, L. & Thaller, S. THEMIS observations of electrostatic ion cyclotron waves and associated ion heating near the Earth’s dayside magnetopause. *J. Geophys. Res.* **120**, 3380–3392 (2015).
- [28] Kempf, Y., Pokhotelov, D., Gutynska, O., Wilson III, L. B., Walsh, B. M., von Alfthan, S., Hannuksela, O., Sibeck, D. G. & Palmroth, M. Ion distributions in the Earth’s foreshock: hybrid-Vlasov simulation and THEMIS observations. *J. Geophys. Res.* **120**, 3684–3701 (2015).
- [29] Osmane, A., Wilson III, L. B., Blum, L. & Pulkkinen, T. I. On the Connection between Microbursts and Nonlinear Electronic Structures in Planetary Radiation Belts. *Astrophys. J.* **816**, 51–60 (2016).
- [30] Wilson III, L. B. Low frequency waves at and upstream of collisionless shocks. In Keiling, A., Lee, D.-H. & Nakariakov, V. (eds.) *Low-frequency Waves in Space Plasmas*, vol. 216 of *Geophys. Monogr. Ser.*, 269–291 (American Geophysical Union, Washington, D.C., 2016).
- [31] Wicks, R. T., Alexander, R. L., Stevens, M. L., Wilson III, L. B., Moya, P. S., Viñas, A. F., Jian, L. K., Roberts, D. A., O’Modhrain, S., Gilbert, J. A. & Zurbuchen, T. H. A Proton-cyclotron Wave Storm Generated by Unstable Proton Distribution Functions in the Solar Wind. *Astrophys. J.* **819**, 6 (2016).

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**Lynn B. Wilson III**

- [32] Collinson, G., Ma, Y., Wilson III, L. B., Grebowsky, J., Sibeck, D. G., Zesta, E., Zhang, T. & Futaana, Y. The Ionospheric Fossil Fields of Venus: Simultaneous multipoint observations by Venus Express and MESSENGER. *Geophys. Res. Lett.* (2016). Submitted Jan. 23, 2016.
- [33] Kanekal, S. G., Baker, D. N., Fennell, J. F., Jones, A., Schiller, Q., Richardson, I. G., Li, X., Turner, D. L., Califf, S., Claudepierre, S. G., Wilson III, L. B., Jaynes, A., Blake, J. B., Reeves, G., Spence, H. E., Kletzing, C. A. & Wygant, J. R. Prompt Acceleration of Magnetospheric Electrons to Ultra-Relativistic Energies by the 17 March 2015 Interplanetary Shock. *J. Geophys. Res.* (2016). Submitted Feb. 23, 2016.
- [34] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by foreshock disturbances. *Nature* (2016). Submitted April 1, 2016.
- [35] Jones, T. W., Brunetti, G., Caprioli, D., Markevitch, M., Oh, S. P., Oka, M., Ryu, D., Wilson III, L. B. & Yoon, P. Comparing the Physics of Interplanetary and Intra-Galaxy-Cluster Media. *Space Sci. Rev.* (2016). In preparation.
- [36] Collinson, G., Dorelli, J., Gloer, A., Wilson III, L. B., Paterson, W., Sarantos, M., Toth, G. & Wilson, R. Hall Magnetic Reconnection at Ganymede: Accelerating particles into the atmosphere and surface. *Science* (2016). In preparation.

**List of arXiv Submissions**  
**Lynn B. Wilson III**

- [37] Kersten, K., Cattell, C. A., Breneman, A., Goetz, K., Kellogg, P. J., Wilson III, L. B., Wygant, J. R., Blake, J. B., Looper, M. D. & Roth, I. Observation of relativistic electron microbursts in conjunction with intense radiation belt whistler-mode waves. *ArXiv e-prints* (2011). [1101.3345](#).
- [38] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Wygant, J. R., Goetz, K., Breneman, A. & Kersten, K. A statistical study of the properties of large amplitude whistler waves and their association with few eV to 30 keV electron distributions observed in the magnetosphere by Wind. *ArXiv e-prints* (2011). [1101.3303](#).
- [39] 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. *ArXiv e-prints* (2012). [1207.5561](#).
- [40] 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. Electromagnetic waves and electron anisotropies downstream of supercritical interplanetary shocks. *ArXiv e-prints* (2012). [1207.6429](#).
- [41] Tang, X., Cattell, C., Dombeck, J., Dai, L., Wilson III, L. B., Breneman, A. & Hupach, A. THEMIS Observations of the Magnetopause Electron Diffusion Region: Large Amplitude Waves and Heated Electrons. *ArXiv e-prints* (2013). [1301.3814](#).
- [42] Wilson III, L. B., Sibeck, D. G., Breneman, A. W., Le Contel, O., Cully, C., Turner, D. L. & Angelopoulos, V. Quantified Energy Dissipation Rates: Electromagnetic Wave Observations in the Terrestrial Bow Shock. *ArXiv e-prints* (2013). [1305.2333](#).
- [43] Wilson III, L. B., Breneman, A. W., Osmane, A. & Malaspina, D. M. On the role of wave-particle interactions in the macroscopic dynamics of collisionless plasmas. *ArXiv e-prints* (2015). Submitted Oct. 23, 2015, [1510.06904](#).

**List of Non-refereed Talks/Presentations**  
**Lynn B. Wilson III**

- [44] Wilson III, L. B., Cattell, C., Kellogg, P., Goetz, K., Kersten, K., Hanson, L. & Kasper, J. A Wind/Waves Study of Waves in the Ramp Region of Interplanetary Shocks. *AGU Fall Meeting Abstracts* A390 (2006).
- [45] Wilson III, L. B., Cattell, C. C., Kellogg, P. J., Goetz, K., Kersten, K., Szabo, A. & Kasper, J. C. Simultaneous Wave and Particle Data at Interplanetary Shocks Observed by Wind. *AGU Spring Meeting Abstracts* A19 (2008).
- [46] Cattell, C., Breneman, A., Goetz, K., Kellogg, P., Kersten, K., Wilson III, L., Wygant, J., Bale, S., Roth, I. & Maksimovic, M. Observations of intense whistler-mode waves and simulations of associated acceleration of electrons. In *APS Meeting Abstracts*, 6001 (2009).
- [47] Breneman, A. W., Cattell, C. A., Kersten, K., Wilson III, L. B., Kellogg, P. J., Schreiner, S. & Goetz, K. Observations of Large Amplitude, Monochromatic Whistlers at Stream Interaction Regions. *AGU Fall Meeting Abstracts* B1524 (2009).
- [48] Kellogg, P. J., Cattell, C. A. & Wilson III, L. B. Whistlers and Electron Trapping in the Earth's Magnetosphere. In Arabelos, D. N. & Tscherning, C. C. (eds.) *EGU General Assembly Conference Abstracts*, vol. 11 of *EGU General Assembly Conference Abstracts*, 13452 (2009).
- [49] Kellogg, P. J., Cattell, C. A. & Wilson III, L. B. Electron trapping in large amplitude whistlers. *AGU Fall Meeting Abstracts* C1 (2009).
- [50] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Goetz, K., Kersten, K., Kasper, J. C. & Szabo, A. Observational Evidence of Modified Two Stream Instability Driven Waves at an Interplanetary Shock. *AGU Fall Meeting Abstracts* A1291 (2009).
- [51] Breneman, A., Cattell, C., Kersten, K., Wilson III, L., Schreiner, S., Jian, L., Kellogg, P. & Goetz, K. Observations of Large Amplitude, Narrowband Whistlers at Stream Interaction Regions. In *APS Meeting Abstracts*, 9 (2010).
- [52] Breneman, A. W., Cattell, C. A., Wygant, J. R., Kersten, K., Wilson III, L. B., Kellogg, P. J. & Goetz, K. Extremely Large Amplitude Whistler Waves in the Earth's Inner Radiation Belt. *AGU Fall Meeting Abstracts* C5 (2010).
- [53] Kersten, K., Cattell, C. A., Breneman, A. W., Goetz, K., Kellogg, P. J., Wilson III, L. B., Wygant, J. R., Blake, J., Looper, M. D. & Roth, I. Observation of relativistic electron microbursts in conjunction with intense radiation belt whistlers. *AGU Fall Meeting Abstracts* C1910 (2010).
- [54] Wilson III, L. B., Cattell, C. A., Kellogg, P. J., Goetz, K., Wygant, J., Breneman, A. W. & Kersten, K. Characteristics of electron distributions observed during large amplitude whistler wave events in the magnetosphere. *AGU Fall Meeting Abstracts* B1703 (2010).
- [55] Breneman, A., Cattell, C., Wygant, J., Kersten, K., Wilson III, L. B., Kellogg, P. J., Goetz, K. & Schreiner, S. Large Amplitude Transmitter- and Lightning-Associated

**List of Non-refereed Talks/Presentations**  
**Lynn B. Wilson III**

- Whistler Waves in Earth's Inner Plasmasphere at  $L < 2$  (2011). Chapman Conference: Dynamics of the Earth's Radiation Belts and Inner Magnetosphere, July 17-22, 2011.
- [56] Breneman, A. W., Cattell, C. A., Wilson III, L. B., Kersten, K. & Goetz, K. STEREO observations of large amplitude electrostatic waves at the Earth's bowshock. *AGU Fall Meeting Abstracts* B2061 (2011).
- [57] Wilson III, L. B., Szabo, A., Koval, A., Cattell, C. A., Kellogg, P. J., Goetz, K., Breneman, A., Kersten, K., Kasper, J. C. & Pulupa, M. Wind Observations of Wave Heating and/or Particle Energization at Supercritical Interplanetary Shocks. In *EGU General Assembly Conference Abstracts*, vol. 13 of *EGU General Assembly Conference Abstracts*, 3893 (2011).
- [58] Wilson III, L. B., Szabo, A., Koval, A., Cattell, C. A., Kellogg, P. J., Goetz, K., Breneman, A. W., Kersten, K., Kasper, J. C., Maruca, B. A. & Pulupa, M. Electromagnetic lower hybrid waves, whistler waves, and particle heating/acceleration at supercritical interplanetary shocks. *AGU Fall Meeting Abstracts* B2048 (2011).
- [59] Jian, L. K., Russell, C. T., Figueroa-Vinas, A., Wilson III, L. B., Szabo, A., Stevens, M. L. & Kasper, J. C. Observations of Ion Cyclotron Waves Using Wind: How Are They Related to Solar Wind Parameters? *Thirteenth International Solar Wind Conference* (2012). URL <http://www.sw13.org/index.html>. June 18-22, 2012, Hawaii.
- [60] 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. *SHINE* (2012). URL <http://shinecon.org/shine2012/abstractlisting.php>. June 25-29, 2012, Hawaii.
- [61] 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.
- [62] 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.
- [63] 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.
- [64] 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.

**List of Non-refereed Talks/Presentations**  
**Lynn B. Wilson III**

- [65] 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.
- [66] 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.
- [67] 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).
- [68] 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.
- [69] 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.
- [70] 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.
- [71] 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.
- [72] 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.
- [73] 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.



**List of Non-refereed Talks/Presentations**  
**Lynn B. Wilson III**

- [74] 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.
- [75] 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.
- [76] 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.
- [77] 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.
- [78] 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.
- [79] 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.
- [80] 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.
- [81] 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.
- [82] 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

**List of Non-refereed Talks/Presentations**  
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- Probe Plus. *AGU Fall Meeting Abstracts* SM41A-4232 (2014). Dec. 15-19, 2014, San Francisco, CA.
- [83] 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.
- [84] 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.
- [85] Markevitch, M., Wilson III, L. B., Jones, T. W., Ryu, D., Brunetti, G. & Oh, P. Microphysics of Intracluster 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).
- [86] 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.
- [87] 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.
- [88] 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.
- [89] 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.
- [90] 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.
- [91] 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.
- [92] 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.
- [93] 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).
- [94] 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.
- [95] Malaspina, D. M., Wilson III, L. B. *et al.* The Wind Dust Database: 22 Years Of Interplanetary And Interstellar Dust Observations. *AOGS-AGU (WPGM) Joint Assembly* PS18–A002 (2016). URL <http://www.asiaoceania.org/aogs2016/>. July 31 - August 5, 2016, Beijing, China.

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- [96] 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.
- [97] 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.
- [98] 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.
- [99] 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.
- [100] 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.
- [101] 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.
- [102] 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.
- [103] 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.
- [104] 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.
- [105] 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.
- [106] 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.
- [107] 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.
- [108] 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.
- [109] 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.
- [110] 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.
- [111] 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.
- [112] 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.
- [113] 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.
- [114] 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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- [115] 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.
- [116] 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.
- [117] 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.
- [118] 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.
- [119] 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.
- [120] 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.
- [121] 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.
- [122] 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/>. Astroplasmas Seminar, Apr. 15, 2016, Department of Astrophysical Sciences, Princeton University.