

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).
- [2] Wilson III, L. B., C. A. Cattell, P. J. Kellogg, K. Goetz, K. Kersten, J. C. Kasper, A. Szabo, and K. Meziane (2009), Low-frequency whistler waves and shocklets observed at quasi-perpendicular interplanetary shocks, *J. Geophys. Res.*, **114**, A10106, [10.1029/2009JA014376](https://doi.org/10.1029/2009JA014376).
- [3] Breneman, A., C. Cattell, S. Schreiner, K. Kersten, L. B. Wilson III, P. Kellogg, K. Goetz, and L. K. Jian (2010), Observations of large-amplitude, narrowband whistlers at stream interaction regions, *J. Geophys. Res.*, **115**, A08104, [10.1029/2009JA014920](https://doi.org/10.1029/2009JA014920).
- [4] Kellogg, P. J., C. A. Cattell, K. Goetz, S. J. Monson, and L. B. Wilson III (2010), Electron trapping and charge transport by large amplitude whistlers, *Geophys. Res. Lett.*, **37**, L20106, [10.1029/2010GL044845](https://doi.org/10.1029/2010GL044845).
- [5] Wilson III, L. B., C. A. Cattell, P. J. Kellogg, K. Goetz, K. Kersten, J. C. Kasper, A. Szabo, and M. Wilber (2010), Large-amplitude electrostatic waves observed at a supercritical interplanetary shock, *J. Geophys. Res.*, **115**, A12104, [10.1029/2010JA015332](https://doi.org/10.1029/2010JA015332).
- [6] Wilson III, L. B. (2010), The microphysics of collisionless shocks, Ph.D. thesis, University of Minnesota lynn.b.wilsoniii@gmail.com, publication Number: AAT 3426498; ISBN: 9781124274577; Advisor: Cynthia Cattell.
- [7] Breneman, A., C. Cattell, J. Wygant, K. Kersten, L. B. Wilson III, S. Schreiner, P. J. Kellogg, and K. Goetz (2011), Large-amplitude transmitter-associated and lightning-associated whistler waves in the Earth's inner plasmasphere at $L < 2$, *J. Geophys. Res.*, **116**, A06310, [10.1029/2010JA016288](https://doi.org/10.1029/2010JA016288).
- [8] Cattell, C., J. Dombeck, A. Preiwisch, S. Thaller, P. Vo, L. B. Wilson III, J. Wygant, S. B. Mende, H. U. Frey, R. Ilie, and G. Lu (2011), Observations of a high-latitude stable electron auroral emission at ~ 16 MLT during a large substorm, *J. Geophys. Res.*, **116**, A07215, [10.1029/2010JA016132](https://doi.org/10.1029/2010JA016132).
- [9] Kellogg, P. J., C. A. Cattell, K. Goetz, S. J. Monson, and L. B. Wilson III (2011), Large amplitude whistlers in the magnetosphere observed with Wind-Waves, *J. Geophys. Res.*, **116**, A09224, [10.1029/2010JA015919](https://doi.org/10.1029/2010JA015919).
- [10] Kersten, K., C. A. Cattell, A. Breneman, K. Goetz, P. J. Kellogg, J. R. Wygant, L. B. Wilson III, J. B. Blake, M. D. Looper, and I. Roth (2011), Observation of relativistic electron microbursts in conjunction with intense radiation belt whistler-mode waves, *Geophys. Res. Lett.*, **38**, 8107, [10.1029/2011GL046810](https://doi.org/10.1029/2011GL046810).
- [11] Wilson III, L. B., C. A. Cattell, P. J. Kellogg, J. R. Wygant, K. Goetz, A. Breneman, and K. Kersten (2011), The properties of large amplitude whistler mode waves in the

List of Refereed Publications

Lynn B. Wilson III

- magnetosphere: Propagation and relationship with geomagnetic activity, *Geophys. Res. Lett.*, **38**, L17107, [10.1029/2011GL048671](https://doi.org/10.1029/2011GL048671).
- [12] Breneman, A., C. Cattell, J. Wygant, K. Kersten, L. B. Wilson III, L. Dai, C. Colpitts, P. J. Kellogg, K. Goetz, and A. Paradise (2012), Explaining polarization reversals in STEREO wave data, *J. Geophys. Res.*, **117**, A04317, [10.1029/2011JA017425](https://doi.org/10.1029/2011JA017425).
- [13] Cattell, C. A., A. Breneman, K. Goetz, P. J. Kellogg, K. Kersten, J. R. Wygant, L. B. Wilson III, M. D. Looper, J. B. Blake, and I. Roth (2012), 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*, *Geophys. Monogr. Ser.*, vol. 199, edited by D. Summers, I. R. Mann, D. N. Baker, and M. Schulz, pp. 41–51, American Geophysical Union, Washington, D.C., [10.1029/2012GM001322](https://doi.org/10.1029/2012GM001322).
- [14] Collinson, G. A., L. B. Wilson III, D. G. Sibeck, N. Shane, T. L. Zhang, T. E. Moore, A. J. Coates, and S. Barabash (2012), Short large-amplitude magnetic structures (SLAMS) at Venus, *J. Geophys. Res.*, **117**, A10221, [10.1029/2012JA017838](https://doi.org/10.1029/2012JA017838).
- [15] Wilson III, L. B., A. Koval, A. Szabo, A. Breneman, C. A. Cattell, K. Goetz, P. J. Kellogg, K. Kersten, J. C. Kasper, B. A. Maruca, and M. Pulupa (2012), Observations of electromagnetic whistler precursors at supercritical interplanetary shocks, *Geophys. Res. Lett.*, **39**, L08109, [10.1029/2012GL051581](https://doi.org/10.1029/2012GL051581).
- [16] Breneman, A., C. Cattell, K. Kersten, A. Paradise, S. Schreiner, P. J. Kellogg, K. Goetz, and L. B. Wilson III (2013), STEREO and Wind observations of intense cyclotron harmonic waves at the Earth's bow shock and inside the magnetosheath, *J. Geophys. Res.*, **118**(12), 7654–7664, [10.1002/2013JA019372](https://doi.org/10.1002/2013JA019372).
- [17] Malaspina, D. M., D. L. Newman, L. B. Wilson III, K. Goetz, P. J. Kellogg, and K. Kersten (2013), Electrostatic Solitary Waves in the Solar Wind: Evidence for Instability at Solar Wind Current Sheets, *J. Geophys. Res.*, **118**, 591–599, [10.1002/jgra.50102](https://doi.org/10.1002/jgra.50102).
- [18] Tang, X., C. A. Cattell, J. P. Dombeck, L. Dai, L. B. Wilson III, A. W. Breneman, and A. J. Hupach (2013), THEMIS observations of the magnetopause electron diffusion region: Large amplitude waves and heated electrons, *Geophys. Res. Lett.*, **40**(12), 2884–2890, [10.1002/grl.50565](https://doi.org/10.1002/grl.50565).
- [19] Wilson III, L. B., A. Koval, A. Szabo, A. Breneman, C. A. Cattell, K. Goetz, P. J. Kellogg, K. Kersten, J. C. Kasper, B. A. Maruca, and M. Pulupa (2013), Electromagnetic waves and electron anisotropies downstream of supercritical interplanetary shocks, *J. Geophys. Res.*, **118**(1), 5–16, [10.1029/2012JA018167](https://doi.org/10.1029/2012JA018167).
- [20] Wilson III, L. B., A. Koval, D. G. Sibeck, A. Szabo, C. A. Cattell, J. C. Kasper, B. A. Maruca, M. Pulupa, C. S. Salem, and M. Wilber (2013), Shocklets, SLAMS, and field-aligned ion beams in the terrestrial foreshock, *J. Geophys. Res.*, **118**(3), 957–966, [10.1029/2012JA018186](https://doi.org/10.1029/2012JA018186).

List of Refereed Publications

Lynn B. Wilson III

- [21] Farrugia, C. J., F. T. Gratton, G. Gnani, R. B. Torbert, and L. B. Wilson III (2014), A Vortical Boundary Layer for Near-Radial IMF: Wind Observations on October 24, 2001, *J. Geophys. Res.*, **119**, 4572–4590, [10.1002/2013JA019578](https://doi.org/10.1002/2013JA019578).
- [22] Malaspina, D. M., M. Horanyi, A. Zaslavsky, K. Goetz, L. B. Wilson III, and K. Kersten (2014), Interplanetary and interstellar dust observed by the Wind/WAVES electric field instrument, *Geophys. Res. Lett.*, **41**, 266–272, [10.1002/2013GL058786](https://doi.org/10.1002/2013GL058786).
- [23] Muzamil, F. M., C. J. Farrugia, R. B. Torbert, P. R. Pritchett, F. S. Mozer, J. D. Scudder, C. T. Russell, P. E. Sandholt, W. F. Denig, and L. B. Wilson III (2014), Structure of a reconnection layer poleward of the cusp: Extreme density asymmetry and a guide field, *J. Geophys. Res.*, **119**(9), 7343–7362, [10.1002/2014JA019879](https://doi.org/10.1002/2014JA019879).
- [24] Yu, W., C. J. Farrugia, N. Lugaz, A. B. Galvin, E. K. J. Kilpua, H. Kucharek, C. Möstl, M. Leitner, R. B. Torbert, K. D. C. Simunac, J. G. Luhmann, A. Szabo, L. B. Wilson III, K. W. Ogilvie, and J.-A. Sauvaud (2014), A Statistical Analysis of Properties of Small Transients in the Solar Wind 2007-2009: STEREO and Wind Observations, *J. Geophys. Res.*, **119**(2), 689–708, [10.1002/2013JA019115](https://doi.org/10.1002/2013JA019115).
- [25] Wilson III, L. B., D. G. Sibeck, A. W. Breneman, O. Le Contel, C. Cully, D. L. Turner, V. Angelopoulos, and D. M. Malaspina (2014), Quantified Energy Dissipation Rates in the Terrestrial Bow Shock: 1. Analysis Techniques and Methodology, *J. Geophys. Res.*, **119**(8), 6455–6474, [10.1002/2014JA019929](https://doi.org/10.1002/2014JA019929).
- [26] Wilson III, L. B., D. G. Sibeck, A. W. Breneman, O. Le Contel, C. Cully, D. L. Turner, V. Angelopoulos, and D. M. Malaspina (2014), Quantified Energy Dissipation Rates in the Terrestrial Bow Shock: 2. Waves and Dissipation, *J. Geophys. Res.*, **119**(8), 6475–6495, [10.1002/2014JA019930](https://doi.org/10.1002/2014JA019930).
- [27] Kempf, Y., D. Pokhotelov, O. Gutynska, L. B. Wilson III, B. M. Walsh, S. von Alfthan, O. Hannuksela, D. G. Sibeck, and M. Palmroth (2015), Ion distributions in the Earth’s foreshock: hybrid-Vlasov simulation and THEMIS observations, *J. Geophys. Res.*, **120**, 3684–3701, [10.1002/2014JA020519](https://doi.org/10.1002/2014JA020519).
- [28] Tang, X., C. A. Cattell, R. Lysak, L. B. Wilson III, L. Dai, and S. Thaller (2015), THEMIS observations of electrostatic ion cyclotron waves and associated ion heating near the Earth’s dayside magnetopause, *J. Geophys. Res.*, **120**, 3380–3392, [10.1002/2015JA020984](https://doi.org/10.1002/2015JA020984).
- [29] Kanekal, S. G., D. N. Baker, J. F. Fennell, A. Jones, Q. Schiller, I. G. Richardson, X. Li, D. L. Turner, S. Califf, S. G. Claudepierre, L. B. Wilson III, A. Jaynes, J. B. Blake, G. Reeves, H. E. Spence, C. A. Kletzing, and J. R. Wygant (2016), Prompt acceleration of magnetospheric electrons to ultrarelativistic energies by the 17 March 2015 interplanetary shock, *J. Geophys. Res.*, **121**, 7622–7635, [10.1002/2016JA022596](https://doi.org/10.1002/2016JA022596).
- [30] Malaspina, D. M., and L. B. Wilson III (2016), A database of interplanetary and interstellar dust detected by the Wind spacecraft, *J. Geophys. Res.*, **121**, 9369–9377, [10.1002/2016JA023209](https://doi.org/10.1002/2016JA023209).

List of Refereed Publications

Lynn B. Wilson III

- [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).
- [32] Wicks, R. T., R. L. Alexander, M. L. Stevens, L. B. Wilson III, P. S. Moya, A. F. Viñas, L. K. Jian, D. A. Roberts, S. O’Modhrain, J. A. Gilbert, and T. H. Zurbuchen (2016), A Proton-cyclotron Wave Storm Generated by Unstable Proton Distribution Functions in the Solar Wind, *Astrophys. J.*, **819**(1), 6, [10.3847/0004-637X/819/1/6](https://doi.org/10.3847/0004-637X/819/1/6).
- [33] Wilson III, L. B. (2016), Low frequency waves at and upstream of collisionless shocks, in *Low-frequency Waves in Space Plasmas*, *Geophys. Monogr. Ser.*, vol. 216, edited by A. Keiling, D.-H. Lee, and V. Nakariakov, pp. 269–291, American Geophysical Union, Washington, D.C., [10.1002/9781119055006.ch16](https://doi.org/10.1002/9781119055006.ch16).
- [34] Wilson III, L. B., D. G. Sibeck, D. L. Turner, A. Osmane, D. Caprioli, and V. Angelopoulos (2016), Relativistic electrons produced by foreshock disturbances observed upstream of the Earth’s bow shock, *Phys. Rev. Lett.*, **117**(21), 215101, [10.1103/PhysRevLett.117.215101](https://doi.org/10.1103/PhysRevLett.117.215101), Editors’ Suggestion.
- [35] Oka, M., L. B. Wilson III, T. D. Phan, A. J. Hull, T. Amano, M. Hoshino, M. R. Argall, O. Le Contel, O. Agapitov, D. J. Gershman, Y. V. Khotyaintsev, J. L. Burch, R. B. Torbert, C. Pollock, J. C. Dorelli, B. L. Giles, T. E. Moore, Y. Saito, L. A. Avanov, W. Paterson, R. E. Ergun, R. J. Strangeway, C. T. Russell, and P. A. Lindqvist (2017), Electron scattering by high-frequency whistler waves at Earth’s bow shock, *Astrophys. J. Lett.*, **842**(2), L11, [10.3847/2041-8213/aa7759](https://doi.org/10.3847/2041-8213/aa7759).
- [36] Wang, S., L.-J. Chen, M. Hesse, L. B. Wilson III, N. Bessho, D. J. Gershman, R. Ergun, T. Phan, J. L. Burch, J. Dorelli, B. L. Giles, R. B. Torbert, C. J. Pollock, C. T. Russell, R. J. Strangeway, O. Le Contel, L. A. Avanov, B. Lavraud, and T. E. Moore (2017), Parallel electron heating in the magnetospheric inflow region, *Geophys. Res. Lett.*, **44**(10), 4384–4392, [10.1002/2017GL073404](https://doi.org/10.1002/2017GL073404).
- [37] Liu, T. Z., V. Angelopoulos, H. Hietala, and L. B. Wilson III (2017), Statistical study of particle acceleration in the core of foreshock transients, *J. Geophys. Res.*, **122**(7), 7197–7208, [10.1002/2017JA024043](https://doi.org/10.1002/2017JA024043), Editors’ Highlight.
- [38] Osmane, A., D. L. Turner, L. B. Wilson III, , A. P. Dimmock, and T. I. Pulkkinen (2017), Subcritical Growth of Electron Phase-space Holes in Planetary Radiation Belts, *Astrophys. J.*, **846**(83), 8, [10.3847/1538-4357/aa8367](https://doi.org/10.3847/1538-4357/aa8367).
- [39] Wilson III, L. B., A. Koval, A. Szabo, M. L. Stevens, J. C. Kasper, C. A. Cattell, and V. V. Krasnoselskikh (2017), Revisiting the structure of low Mach number, low beta, quasi-perpendicular shocks, *J. Geophys. Res.*, **122**(9), 9115–9133, [10.1002/2017JA024352](https://doi.org/10.1002/2017JA024352).
- [40] Liu, T. Z., S. Lu, V. Angelopoulos, H. Hietala, and L. B. Wilson III (2017), Fermi acceleration of electrons inside foreshock transient cores, *J. Geophys. Res.*, **122**(9), 9248–9263, [10.1002/2017JA024480](https://doi.org/10.1002/2017JA024480).

List of Refereed Publications

Lynn B. Wilson III

- [41] Horaites, K., S. Boldyrev, L. B. Wilson III, A. F. Viñas, and J. Merka (2018), Kinetic Theory and Fast Wind Observations of the Electron Strahl, *Mon. Not. Roy. Astron. Soc.*, **474**(1), 115–127, [10.1093/mnras/stx2555](https://doi.org/10.1093/mnras/stx2555).
- [42] Livadiotis, G., M. I. Desai, and L. B. Wilson III (2018), Generation of Kappa Distributions in Solar Wind at 1 au, *Astrophys. J.*, **853**(142), 15, [10.3847/1538-4357/aaa713](https://doi.org/10.3847/1538-4357/aaa713).
- [43] Liu, M., Y. D. Liu, Z. Yang, L. B. Wilson III, and H. Hu (2018), Kinetic Properties of an Interplanetary Shock Propagating inside a Coronal Mass Ejection, *Astrophys. J. Lett.*, **859**, L4, [10.3847/2041-8213/aac269](https://doi.org/10.3847/2041-8213/aac269).
- [44] Chen, L.-J., S. Wang, L. B. Wilson III, S. J. Schwartz, D. J. Gershman, N. Bessho, D. M. Malaspina, F. Wilder, T. E. Moore, B. L. Giles, R. E. Ergun, M. Hesse, H. Lai, C. T. Russell, R. J. Strangeway, R. B. Torbert, A. F. Viñas, J. L. Burch, S. Lee, C. Pollock, J. Dorelli, W. R. Paterson, K. A. Goodrich, B. Lavraud, Y. V. Khotyaintsev, P.-A. Lindqvist, A. Le, and L. A. Avanov (2018), Electron bulk acceleration and thermalization at Earth’s quasi-perpendicular bow shock, *Phys. Rev. Lett.*, **120**(22), 225101, [10.1103/PhysRevLett.120.225101](https://doi.org/10.1103/PhysRevLett.120.225101).
- [45] Wilson III, L. B., M. L. Stevens, J. C. Kasper, K. G. Klein, B. Maruca, S. D. Bale, T. A. Bowen, M. P. Pulupa, and C. S. Salem (2018), The Statistical Properties of Solar Wind Temperature Parameters Near 1 au, *Astrophys. J. Suppl.*, **236**(2), 41, [10.3847/1538-4365/aab71c](https://doi.org/10.3847/1538-4365/aab71c).
- [46] Giagkiozis, S., L. B. Wilson III, J. L. Burch, O. Le Contel, R. E. Ergun, D. J. Gershman, P.-A. Lindqvist, L. Mirioni, T. E. Moore, and R. J. Strangeway (2018), Statistical study of the properties of magnetosheath lion roars, *J. Geophys. Res.*, **123**(7), 5435–5451, [10.1029/2018JA025343](https://doi.org/10.1029/2018JA025343).
- [47] Turner, D. L., L. B. Wilson III, T. Z. Liu, I. J. Cohen, S. J. Schwartz, A. Osmane, J. F. Fennell, J. H. Clemmons, J. B. Blake, J. Westlake, B. H. Mauk, A. N. Jaynes, T. Leonard, D. N. Baker, R. J. Strangeway, C. T. Russell, D. J. Gershman, L. A. Avanov, B. L. Giles, R. B. Torbert, J. Broll, R. G. Gomez, S. A. Fuselier, and J. L. Burch (2018), Autogenous and efficient acceleration of energetic ions upstream of Earth’s bow shock, *Nature*, **561**(7722), 206–210, [10.1038/s41586-018-0472-9](https://doi.org/10.1038/s41586-018-0472-9).
- [48] Collinson, G., L. B. Wilson III, N. Omid, D. G. Sibeck, J. Espley, C. Fowler, D. Mitchell, J. Grebowsky, C. Mazelle, S. Ruhunusiri, J. Halekas, R. Frahm, T. Zhang, Y. Futaana, and B. Jakosky (2018), Solar Wind Induced Waves in the Skies of Mars: Ionospheric Compression, Energization, and Escape Resulting From the Impact of Ultralow Frequency Magnetosonic Waves Generated Upstream of the Martian Bow Shock, *J. Geophys. Res.*, **123**(9), 7241–7256, [10.1029/2018JA025414](https://doi.org/10.1029/2018JA025414).
- [49] Lario, D., L. Berger, L. B. Wilson III, R. B. Decker, D. K. Haggerty, E. C. Roelof, R. F. Wimmer-Schweingruber, and J. Giacalone (2018), Flat Proton Spectra in Large Solar Energetic Particle Events, in *The 17th Annual International Astrophysics Conference: Dissipative and Heating Processes in Collisionless Plasma*, *J. Phys. Conf. Ser.*, vol. 1100, p. 012014, [10.1088/1742-6596/1100/1/012014](https://doi.org/10.1088/1742-6596/1100/1/012014).

lynn.b.wilsoniii@gmail.com

List of Refereed Publications

List of Refereed Publications

Lynn B. Wilson III

- [50] Goodrich, K. A., R. E. Ergun, S. J. Schwartz, L. B. Wilson III, D. Newman, F. D. Wilder, J. Holmes, A. Johlander, J. L. Burch, R. B. Torbert, Y. Khotyaintsev, P.-A. Lindqvist, C. T. Russell, D. J. Gershman, B. L. Giles, and L. Andersson (2018), MMS Observations of Electrostatic Waves in an Oblique Shock Crossing, *J. Geophys. Res.*, **123**(11), 9430–9442, [10.1029/2018JA025830](https://doi.org/10.1029/2018JA025830).
- [51] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, B. L. Giles, T. E. Moore, C. T. Russell, R. B. Torbert, and J. L. Burch (2019), Observational evidence of magnetic reconnection in the terrestrial bow shock transition region, *Geophys. Res. Lett.*, **46**(2), 562–570, [10.1029/2018GL080944](https://doi.org/10.1029/2018GL080944).
- [52] Goodrich, K. A., R. E. Ergun, S. J. Schwartz, L. B. Wilson III, A. Johlander, D. Newman, F. D. Wilder, J. Holmes, J. L. Burch, R. B. Torbert, Y. Khotyaintsev, P.-A. Lindqvist, R. J. Strangeway, C. T. Russell, D. J. Gershman, and B. L. Giles (2019), Impulsively Reflected Ions: A Plausible Mechanism for Ion Acoustic Wave Growth in Collisionless Shocks, *J. Geophys. Res.*, **124**(3), 1855–1865, [10.1029/2018JA026436](https://doi.org/10.1029/2018JA026436).
- [53] Ofman, L., A. Koval, L. B. Wilson III, and A. Szabo (2019), Understanding the Role of α Particles in Oblique Heliospheric Shock Oscillations, *J. Geophys. Res.*, **124**(4), 2393–2405, [10.1029/2018JA026301](https://doi.org/10.1029/2018JA026301).
- [54] Lario, D., L. Berger, R. B. Decker, R. F. Wimmer-Schweingruber, L. B. Wilson III, J. Giacalone, and E. C. Roelof (2019), Evolution of the Suprathermal Proton Population at Interplanetary Shocks, *Astron. J.*, **158**(1), 12, [10.3847/1538-3881/ab1e49](https://doi.org/10.3847/1538-3881/ab1e49).
- [55] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2019), Electron energy partition across interplanetary shocks: I. Methodology and Data Product, *Astrophys. J. Suppl.*, **243**(8), [10.3847/1538-4365/ab22bd](https://doi.org/10.3847/1538-4365/ab22bd).
- [56] Bessho, N., L.-J. Chen, S. Wang, L. B. Wilson III, and M. Hesse (2019), Magnetic reconnection in a quasi-parallel shock: two-dimensional local particle-in-cell simulation, *Geophys. Res. Lett.*, **46**(16), 9352–9361, [10.1029/2019GL083397](https://doi.org/10.1029/2019GL083397).
- [57] Oka, M., F. Otsuka, S. Matsukiyo, L. B. Wilson III, M. R. Argall, T. Amano, T. D. Phan, M. Hoshino, O. Le Contel, D. J. Gershman, J. L. Burch, R. B. Torbert, J. C. Dorelli, B. L. Giles, R. E. Ergun, C. T. Russell, and P.-A. Lindqvist (2019), Electron Scattering by Low-Frequency Whistler Waves at Earth’s Bow Shock, *Astrophys. J.*, **886**(53), 11, [10.3847/1538-4357/ab4a81](https://doi.org/10.3847/1538-4357/ab4a81).
- [58] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2019), Electron energy partition across interplanetary shocks: II. Statistics, *Astrophys. J. Suppl.*, **245**(24), [10.3847/1538-4365/ab5445](https://doi.org/10.3847/1538-4365/ab5445).
- [59] Heuer, P. V., M. S. Weidl, R. S. Dorst, D. B. Schaeffer, S. K. P. Tripathi, S. Vincena, C. G. Constantin, C. Niemann, L. B. Wilson III, and D. Winske (2020), Laboratory Observations of Ultra-Low Frequency Analogue Waves Driven by the Right-Hand Resonant Ion Beam Instability, *Astrophys. J. Lett.*, **891**, 6, [10.3847/2041-8213/ab75f4](https://doi.org/10.3847/2041-8213/ab75f4).

List of Refereed Publications

Lynn B. Wilson III

- [60] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2020), Electron energy partition across interplanetary shocks: III. Analysis, *Astrophys. J.*, **893**(22), [10.3847/1538-4357/ab7d39](https://doi.org/10.3847/1538-4357/ab7d39).
- [61] Madanian, H., S. J. Schwartz, J. S. Halekas, and L. B. Wilson III (2020), Nonstationary Quasi-perpendicular Shock and Ion Reflection at Mars, *Geophys. Res. Lett.*, **47**(11), e2020GL088,309, [10.1029/2020GL088309](https://doi.org/10.1029/2020GL088309).
- [62] Farrugia, C. J., N. Lugaz, B. J. Vasquez, L. B. Wilson III, W. Yu, K. Paulson, R. B. Torbert, and F. T. Gratton (2020), A Study of a Magnetic Cloud Propagating through Large-Amplitude Alfvén Waves, *J. Geophys. Res.*, **125**(6), e2019JA027,638, [10.1029/2019JA027638](https://doi.org/10.1029/2019JA027638).
- [63] Turner, D. L., T. Z. Liu, L. B. Wilson III, I. J. Cohen, D. J. Gershman, J. F. Fennell, J. B. Blake, B. H. Mauk, N. Omid, and J. L. Burch (2020), Microscopic, multipoint characterization of foreshock bubbles with Magnetospheric Multiscale (MMS), *J. Geophys. Res.*, **125**(7), e2019JA027,707, [10.1029/2019JA027707](https://doi.org/10.1029/2019JA027707).
- [64] Chen, L.-J., S. Wang, O. Le Contel, A. Rager, J. Ng, M. Hesse, J. Drake, J. Dorelli, N. Bessho, D. Graham, L. B. Wilson III, T. E. Moore, B. L. Giles, W. R. Paterson, B. Lavraud, K. Genestreti, R. Nakamura, Y. V. Khotyaintsev, R. E. Ergun, R. B. Torbert, J. L. Burch, C. Pollock, C. Russell, P.-A. Lindqvist, and L. A. Avanov (2020), Lower-hybrid drift waves driving electron nongyrotropic heating and vortical flows in a magnetic reconnection layer, *Phys. Rev. Lett.*, **125**(2), 025,103, [10.1103/PhysRevLett.125.025103](https://doi.org/10.1103/PhysRevLett.125.025103).
- [65] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, R. Denton, J. Ng, B. L. Giles, R. B. Torbert, and J. L. Burch (2020), Ion-scale current structures in Short Large-amplitude Magnetic Structures, *Astrophys. J.*, **898**(121), 13, [10.3847/1538-4357/ab9b8b](https://doi.org/10.3847/1538-4357/ab9b8b).
- [66] Bessho, N., L.-J. Chen, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2020), Magnetic reconnection and kinetic waves generated in the Earth’s quasi-parallel bow shock, *Phys. Plasmas*, **27**(9), 092,901, [10.1063/5.0012443](https://doi.org/10.1063/5.0012443).
- [67] Cohen, Z. A., C. A. Cattell, A. W. Breneman, L. Davis, P. Grul, K. Kersten, L. B. Wilson III, and J. R. Wygant (2020), The Rapid Variability of Wave Electric Fields Within and Near Quasiperpendicular Interplanetary Shock Ramps: STEREO Observations, *Astrophys. J.*, **904**(174), 14, [10.3847/1538-4357/abbeec](https://doi.org/10.3847/1538-4357/abbeec).
- [68] Liu, T. Z., Y. Hao, L. B. Wilson III, D. L. Turner, and H. Zhang (2021), Magnetospheric Multiscale observations of Earth’s oblique bow shock reformation by foreshock ultra-low frequency waves, *Geophys. Res. Lett.*, **48**(2), e2020GL091184, [10.1029/2020GL091184](https://doi.org/10.1029/2020GL091184).
- [69] Wilson III, L. B., L.-J. Chen, and V. Roytershteyn (2021), The discrepancy between simulation and observation of electric fields in collisionless shocks (invited), *Front. Astron. Space Sci.*, **7**(592634), 14, [10.3389/fspas.2020.592634](https://doi.org/10.3389/fspas.2020.592634).

List of Refereed Publications

Lynn B. Wilson III

- [70] Madanian, H., M. I. Desai, S. J. Schwartz, L. B. Wilson III, S. A. Fuselier, J. L. Burch, O. Le Contel, D. L. Turner, K. Ogasawara, A. L. Brosius, C. T. Russell, R. E. Ergun, N. Ahmadi, D. J. Gershman, and P.-A. Lindqvist (2021), The Dynamics of a High Mach Number Quasi-Perpendicular Shock: MMS Observations, *Astrophys. J.*, **908**(40), 11, [10.3847/1538-4357/abcb88](https://doi.org/10.3847/1538-4357/abcb88).
- [71] Farrugia, C. J., A. J. Rogers, R. B. Torbert, K. J. Genestreti, T. K. M. Nakamura, B. Lavraud, P. Montag, J. Egedal, D. Payne, A. Keese, N. Ahmadi, R. E. Ergun, P. Reiff, M. Argall, H. Matsui, L. B. Wilson III, N. Lugaz, J. L. Burch, C. T. Russell, S. A. Fuselier, and I. Dors (2021), An Encounter with the Ion and Electron Diffusion Regions at a Flapping and Twisted Tail Current Sheet, *J. Geophys. Res.*, **126**(3), e2020JA028,903, [10.1029/2020JA028903](https://doi.org/10.1029/2020JA028903).
- [72] Turner, D. L., L. B. Wilson III, K. Goodrich, H. Madanian, T. Z. Liu, A. Johlander, D. Caprioli, H. Hietala, D. J. Gershman, A. K. Higginson, I. J. Cohen, J. H. Westlake, J. L. Burch, and S. J. Schwartz (2021), Direct Multipoint Observations Capturing the Formation of a Supercritical Fast Magnetosonic Shock, *Astrophys. J. Lett.*, **911**(31), [10.3847/2041-8213/abec78](https://doi.org/10.3847/2041-8213/abec78).
- [73] Collinson, G. A., R. Ramstad, A. Gloer, L. B. Wilson III, and A. Brosius (2021), Depleted plasma densities in the ionosphere of Venus near solar minimum from Parker Solar Probe observations of upper hybrid resonance emission, *Geophys. Res. Lett.*, **48**(9), e2020GL092,243, [10.1029/2020GL092243](https://doi.org/10.1029/2020GL092243).
- [74] Wilson III, L. B., A. L. Brosius, N. Gopalswamy, T. Nieves-Chinchilla, A. Szabo, K. Hurley, T. Phan, J. Kasper, N. Lugaz, I. G. Richardson, C. H. K. Chen, D. Verscharen, R. T. Wicks, and J. M. TenBarge (2021), A Quarter Century of *Wind* Spacecraft Discoveries, *Rev. Geophys.*, **59**(2), e2020RG000,714, [10.1029/2020RG000714](https://doi.org/10.1029/2020RG000714).
- [75] Wilson III, L. B. (2021), *Wind*: Discoveries and impacts of a venerable spacecraft, *Eos*, **102**, [10.1029/2021EO156801](https://doi.org/10.1029/2021EO156801).
- [76] Ofman, L., A. Koval, L. B. Wilson III, and A. Szabo (2021), Oblique High Mach Number Heliospheric Shocks: the Role of α Particles, *J. Geophys. Res.*, **126**(5), e2020JA028,962, [10.1029/2020JA028962](https://doi.org/10.1029/2020JA028962).
- [77] Blum, L. W., A. Koval, I. G. Richardson, L. B. Wilson III, D. M. Malaspina, A. Greeley, and A. N. Jaynes (2021), Prompt Response of the Dayside Magnetosphere to Discrete Structures Within the Sheath Region of a Coronal Mass Ejection, *Geophys. Res. Lett.*, **48**(11), e2021GL092,700, [10.1029/2021GL092700](https://doi.org/10.1029/2021GL092700).
- [78] Davis, L., C. A. Cattell, L. B. Wilson III, Z. A. Cohen, A. W. Breneman, and E. L. M. Hanson (2021), ARTEMIS Observations of Plasma Waves in Laminar and Perturbed Interplanetary Shocks, *Astrophys. J.*, **913**(144), 18, [10.3847/1538-4357/abf56a](https://doi.org/10.3847/1538-4357/abf56a).
- [79] Starkey, M. J., S. A. Fuselier, M. I. Desai, S. J. Schwartz, C. T. Russell, H. Wei, H. Madanian, J. Mukherjee, and L. B. Wilson III (2021), MMS Observations of Energized He⁺ Pickup Ions at Quasiperpendicular Shocks, *Astrophys. J.*, **913**(112), 13, [10.3847/1538-4357/abf4d9](https://doi.org/10.3847/1538-4357/abf4d9).

List of Refereed Publications

Lynn B. Wilson III

- [80] Malaspina, D. M., L. B. Wilson III, R. E. Ergun, S. D. Bale, T. D. de Wit, K. Goodrich, K. Goetz, P. R. Harvey, R. J. MacDowall, M. P. Pulupa, J. Halekas, A. Case, J. C. Kasper, D. Larson, M. Stevens, and P. Whittlesey (2021), Electron Bernstein waves and narrow band plasma waves near the electron cyclotron frequency in the near-Sun solar wind, *Astron. & Astrophys.*, **650**(A97), 10, [10.1051/0004-6361/202140449](https://doi.org/10.1051/0004-6361/202140449).
- [81] Juno, J., G. G. Howes, J. M. TenBarge, L. B. Wilson III, et al. (2021), A Field-Particle Correlation Analysis of a Perpendicular Magnetized Collisionless Shock, *J. Plasma Phys.*, **87**(3), 905870316, [10.1017/S0022377821000623](https://doi.org/10.1017/S0022377821000623).
- [82] Schwartz, S. J., R. E. Ergun, H. Kucharek, L. B. Wilson III, L.-J. Chen, K. A. Goodrich, D. L. Turner, I. Gingell, H. Madanian, D. J. Gershman, and R. Strangeway (2021), Evaluating the de Hoffmann-Teller cross-shock potential at real collisionless shocks, *J. Geophys. Res.*, **126**(8), e2021JA029295, [10.1029/2021JA029295](https://doi.org/10.1029/2021JA029295).
- [83] Lario, D., I. G. Richardson, E. Palmerio, N. Lugaz, S. D. Bale, M. L. Stevens, C. M. S. Cohen, J. Giacalone, D. G. Mitchell, A. Szabo, T. Nieves-Chinchilla, L. B. Wilson III, E. R. Christian, M. E. Hill, D. J. McComas, R. L. McNutt Jr., N. A. Schwadron, and M. E. Wiedenbeck (2021), Comparative Analysis of the 2020 November 29 Solar Energetic Particle Event Observed by Parker Solar Probe, *Astrophys. J.*, **920**(2), 16, [10.3847/1538-4357/ac157f](https://doi.org/10.3847/1538-4357/ac157f).
- [84] Collinson, G. A., R. Ramstad, R. Frahm, L. B. Wilson III, S. Xu, P. Whittlesey, S. H. Brecht, and S. Ledvina (2022), A revised understanding of the structure of the Venusian magnetotail from a high-altitude intercept with a Tail Ray by Parker Solar Probe, *Geophys. Res. Lett.*, **48**(1), e2021GL096485, [10.1029/2021GL096485](https://doi.org/10.1029/2021GL096485).
- [85] Lario, D., I. G. Richardson, L. B. Wilson III, L. Berger, L. K. Jian, and D. Trotta (2022), The Extended Field-aligned Suprathermal Proton Beam and Long-lasting Trapped Energetic Particle Population Observed Upstream of a Transient Interplanetary Shock, *Astrophys. J.*, **925**(198), 16, [10.3847/1538-4357/ac3c47](https://doi.org/10.3847/1538-4357/ac3c47).
- [86] Bessho, N., L.-J. Chen, J. E. Stawarz, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2022), Strong reconnection electric fields in shock-driven turbulence, *Phys. Plasmas*, **29**(4), 042304, [10.1063/5.0077529](https://doi.org/10.1063/5.0077529).
- [87] Kooi, J. E., D. Wexler, E. A. Jensen, M. N. Kenny, T. Nieves-Chinchilla, L. B. Wilson III, B. E. Wood, L. K. Jian, S. F. Fung, and A. Pevtsov (2022), Modern Faraday Rotation Studies to Probe the Solar Wind, *Front. Astron. Space Sci.*, **9**(841866), 26, [10.3389/fspas.2022.841866](https://doi.org/10.3389/fspas.2022.841866).
- [88] Nieves-Chinchilla, T., N. Alzate, H. Cremades, L. Rodriguez-Garcia, L. F. G. Dos Santos, A. Narock, H. Xie, A. Szabo, E. Palmerio, V. Krupar, M. Pulupa, D. Lario, M. L. Stevens, L. B. Wilson III, R.-Y. Kwon, M. L. Mays, O. C. St. Cyr, P. Hess, K. K. Reeves, D. B. Seaton, T. Niembro, S. D. Bale, and J. C. Kasper (2022), Direct First PSP Observation of the Interaction of Two Successive Interplanetary Coronal Mass Ejections in November 2020, *Astrophys. J.*, **930**(88), 21, [10.3847/1538-4357/ac590b](https://doi.org/10.3847/1538-4357/ac590b).

List of Refereed Publications

Lynn B. Wilson III

- [89] Winske, D., and L. B. Wilson III (2022), Linear Theory of Electromagnetic Ion Beam Instabilities in the Earth’s Foreshock: Peter Gary’s Contributions (1981–1991), *Front. Astron. Space Sci.*, **9**(899642), 26, [10.3389/fspas.2022.899642](https://doi.org/10.3389/fspas.2022.899642).
- [90] Howes, G. G., J. L. Verniero, D. E. Larson, S. D. Bale, J. C. Kasper, K. Goetz, K. G. Klein, P. L. Whittlesey, R. Livi, A. Rahmati, C. H. K. Chen, L. B. Wilson III, B. L. Alterman, and R. T. Wicks (2022), Revolutionizing our Understanding of Particle Energization in Space Plasmas Using On-Board Wave-Particle Correlator Instrumentation, *Front. Astron. Space Sci.*, **9**, 912,868, [10.3389/fspas.2022.912868](https://doi.org/10.3389/fspas.2022.912868).
- [91] Eriksson, S., M. Swisdak, J. M. Weygand, A. Mallet, D. L. Newman, G. Lapenta, L. B. Wilson III, D. L. Turner, and B. Larsen (2022), Characteristics of Multi-Scale Current Sheets in the Solar Wind at 1 AU Associated with Magnetic Reconnection and the Case for a Heliospheric Current Sheet Avalanche, *Astrophys. J.*, **933**(181), 21, [10.3847/1538-4357/ac73f6](https://doi.org/10.3847/1538-4357/ac73f6).
- [92] Farrugia, C. J., N. Lugaz, S. Wing, L. B. Wilson III, D. J. Sibeck, S. W. H. Cowley, R. B. Torbert, B. Vasquez, and J. Berchem (2022), Effects from Dayside Magnetosphere to Distant Tail Unleashed by a Bifurcated, Non-Reconnecting Interplanetary Current Sheet, *Front. Phys. Space Phys.*, **10**, 942,486, [10.3389/fphy.2022.942486](https://doi.org/10.3389/fphy.2022.942486).
- [93] Schwartz, S. J., K. A. Goodrich, L. B. Wilson III, D. L. Turner, K. J. Trattner, H. Kucharek, I. Gingell, S. A. Fuselier, I. J. Cohen, H. Madanian, R. E. Ergun, D. J. Gershman, and R. J. Strangeway (2022), Energy partition at collisionless supercritical quasiperpendicular shocks, *J. Geophys. Res.*, **127**(10), e2022JA030,637, [10.1029/2022JA030637](https://doi.org/10.1029/2022JA030637).
- [94] Allen, R. C., E. J. Smith, B. J. Anderson, J. Borovsky, G. C. Ho, L. K. Jian, S. Krucker, S. Lepri, G. Li, S. Livi, N. Lugaz, D. M. Malaspina, B. A. Maruca, P. Mostafavi, J. M. Raines, D. Verscharen, J. Vievering, S. K. Vines, P. Whittlesey, L. B. Wilson III, and R. F. Wimmer-Schweingruber (2022), Interplanetary Mesoscale Observatory (Inter-Meso): A mission to untangle dynamic mesoscale structures throughout the heliosphere, *Front. Astron. Space Sci.*, **9**, 1002,273, [10.3389/fspas.2022.1002273](https://doi.org/10.3389/fspas.2022.1002273).
- [95] Hervig, M. E., D. M. Malaspina, V. Sterken, L. B. Wilson III, S. Hunziker, S. M. Bailey, et al. (2022), Decadal and annual variations in meteoric flux from Ulysses, Wind, and SOFIE observations, *J. Geophys. Res.*, **127**(10), e2022JA030,749, [10.1029/2022JA030749](https://doi.org/10.1029/2022JA030749).
- [96] Liu, M., Z. Yang, Y. D. Liu, B. Lembège, K. Issautier, L. B. Wilson III, S. Zhao, V. K. Jagarlamudi, X. Zhao, J. Huang, and N. Chrysaphi (2022), Properties of A Supercritical Quasi-perpendicular Interplanetary Shock Propagating in the Terrestrial Foreshock Region, *Astrophys. J. Suppl.*, **263**(11), 15, [10.3847/1538-4365/ac94c8](https://doi.org/10.3847/1538-4365/ac94c8).
- [97] Wilson III, L. B., K. A. Goodrich, D. L. Turner, I. J. Cohen, P. L. Whittlesey, and S. J. Schwartz (2022), The need for accurate measurements of thermal velocity distribution functions in the solar wind, *Front. Astron. Space Sci.*, **9**, 1063,841, [10.3389/fspas.2022.1063841](https://doi.org/10.3389/fspas.2022.1063841).

List of Refereed Publications

Lynn B. Wilson III

- [98] Trotta, D., H. Hietala, T. Horbury, N. Dresing, R. Vanio, L. B. Wilson III, I. Plotnikov, and E. Kilpua (2023), Multi-spacecraft observations of shocklets at an interplanetary shock, *Mon. Not. Roy. Astron. Soc.*, **520**(1), 437–445, [10.1093/mnras/stad104](https://doi.org/10.1093/mnras/stad104).
- [99] Juno, J., C. R. Brown, G. G. Howes, C. C. Haggerty, J. M. TenBarge, L. B. Wilson III, D. Caprioli, and K. G. Klein (2023), Phase Space Energization of Ions in Oblique Shocks, *Astrophys. J.*, **944**(15), 9, [10.3847/1538-4357/acaf53](https://doi.org/10.3847/1538-4357/acaf53).
- [100] Halford, A. J., A. G. Burrell, M. W. Liemohn, M. Jones Jr., A. Maute, T. I. Pulkkinen, C. M. Bard, R. M. McGranaghan, L. B. Wilson III, R. C. Allen, C. Dong, S. K. Vines, L. Wang, N. Turner, K. Garcia-Sage, K. Mandt, and J. Klenzing (2023), Cultivating a culture of inclusivity in Heliophysics, *Front. Phys. Space Phys.*, **11**, 1061,683, [10.3389/fphy.2023.1061683](https://doi.org/10.3389/fphy.2023.1061683).
- [101] Jensen, E. A., N. Gopalswamy, L. B. Wilson III, L. K. Jian, S. F. Fung, T. Nieves-Chinchilla, M. Shelton, L. Li, M. Deshpande, L. Purves, J. Lazio, W. B. Manchester, B. E. Wood, J. E. Kooi, D. B. Wexler, S. D. Bale, A. Pevtsov, B. V. Jackson, and M. N. Kenny (2023), The Faraday Effect Tracker of Coronal and Heliospheric Structures (FETCH) Instrument, *Front. Astron. Space Sci.*, **10**, 1064,069, [10.3389/fspas.2023.1064069](https://doi.org/10.3389/fspas.2023.1064069).
- [102] Perri, S., G. Prete, G. Zimbardo, D. Trotta, L. B. Wilson III, D. Lario, S. Servidio, F. Valentini, and J. Giacalone (2023), Interpretation of flat energy spectra upstream of fast interplanetary shocks, *Astrophys. J.*, **950**(62), 14, [10.3847/1538-4357/acc942](https://doi.org/10.3847/1538-4357/acc942).
- [103] Fordin, S., M. A. Shay, L. B. Wilson III, B. A. Maruca, and B. J. Thompson (2023), A Machine Learning–Based Approach to Time-series Wave Identification in the Solar Wind, *Astrophys. J.*, **949**(40), 13, [10.3847/1538-4357/acc8d5](https://doi.org/10.3847/1538-4357/acc8d5).
- [104] Horaites, K., S. Boldyrev, L. B. Wilson III, A. F. Viñas, and J. Merka (2023), Correction to: Kinetic theory and fast wind observations of the electron strahl, *Mon. Not. Roy. Astron. Soc.*, **523**(2), 2399–2400, [10.1093/mnras/stad1443](https://doi.org/10.1093/mnras/stad1443).
- [105] Johnson, E., B. A. Maruca, M. McManus, K. G. Klein, E. R. Lichko, J. Verniero, K. W. Paulson, H. DeWeese, I. Dieguez, R. A. Qudsi, J. C. Kasper, M. L. Stevens, B. L. Alterman, L. B. Wilson III, R. Livi, A. Rahmati, and D. E. Larson (2023), Anterograde Collisional Analysis of Solar Wind Ions, *Astrophys. J.*, **950**(51), 6, [10.3847/1538-4357/accc32](https://doi.org/10.3847/1538-4357/accc32).
- [106] Akhavan-Tafti, M., L. Johnson, R. Sood, J. A. Slavin, T. I. Pulkkinen, S. Lepri, E. Kilpua, D. Fontaine, A. Szabo, L. B. Wilson III, G. Le, T. Atilaw, M. Ala-Lahti, S. L. Soni, D. Biesecker, L. K. Jian, and D. Lario (2023), Space Weather Investigation Frontier (SWIFT), *Front. Astron. Space Sci.*, **10**, 1185,603, [10.3389/fspas.2023.1185603](https://doi.org/10.3389/fspas.2023.1185603).
- [107] Farrugia, C. J., B. J. Vasquez, N. Lugaz, N. A. Al-Haddad, I. G. Richardson, E. E. Davies, R. M. Winslow, B. Zhuang, C. Scolini, R. B. Torbert, L. B. Wilson III, F. Regnault, A. Rogers, A. B. Galvin, and W. Yu (2023), How Magnetic Reconnection May

List of Refereed Publications

Lynn B. Wilson III

Affect the Coherence of Interplanetary Coronal Mass Ejections, *Astrophys. J.*, **953**(15), 18, [10.3847/1538-4357/acdcf7](https://doi.org/10.3847/1538-4357/acdcf7).

- [108] Bessho, N., L.-J. Chen, M. Hesse, J. Ng, L. B. Wilson III, and J. E. Stawarz (2023), Electron acceleration and heating during magnetic reconnection in the Earth's quasi-parallel bow shock, *Astrophys. J.*, **954**(25), 30, [10.3847/1538-4357/ace321](https://doi.org/10.3847/1538-4357/ace321).
- [109] Halford, A. J., C. M. Bard, A. G. Burrell, R. M. McGranaghan, L. B. Wilson III, M. Jones Jr., C. Dong, L. Wang, T. I. Pulkkinen, N. Turner, M. W. Liemohn, and J. Klenzing (2023), The importance of recruitment and retention in Heliophysics: it's not just a pipeline problem, *Front. Astron. Space Sci.*, **10**, 1216,449, [10.3389/fspas.2023.1216449](https://doi.org/10.3389/fspas.2023.1216449).
- [110] Allen, R. C., E. J. Smith, B. J. Anderson, J. Borovsky, G. C. Ho, L. Jian, S. Krucker, S. Lepri, G. Li, S. Livi, N. Lugaz, D. M. Malaspina, B. A. Maruca, P. Mostafavi, J. M. Raines, D. Verscharen, J. Vievering, S. K. Vines, P. Whittlesey, L. B. Wilson III, and R. F. Wimmer-Schqueingruber (2023), Interplanetary Mesoscale Observatory (Inter-Meso): A mission concept to untangle dynamic mesoscale structures throughout the heliosphere, in *Bull. American Astron. Soc.*, vol. 55, p. 007, [10.3847/25c2cfcb.4af6b856](https://doi.org/10.3847/25c2cfcb.4af6b856).
- [111] Allen, R. C., E. J. Smith, B. J. Anderson, J. Borovsky, G. C. Ho, L. Jian, S. Krucker, S. Lepri, G. Li, S. Livi, N. Lugaz, D. M. Malaspina, B. A. Maruca, P. Mostafavi, J. M. Raines, D. Verscharen, J. Vievering, S. K. Vines, P. Whittlesey, L. B. Wilson III, R. F. Wimmer-Schqueingruber, C. O. Lee, C. M. S. Cohen, K. Nykyri, R. Filwett, E. Palmerio, M. Dayeh, G. Mason, M. Desai, and J. Verniero (2023), The Solar Wind at Mesoscales – Revealing the Missing Link, in *Bull. American Astron. Soc.*, vol. 55, p. 008, [10.3847/25c2cfcb.3e75c979](https://doi.org/10.3847/25c2cfcb.3e75c979).
- [112] Goodrich, K., S. Schwartz, L. B. Wilson III, I. Cohen, A. Caspi, K. Smith, R. Rose, P. Whittlesey, F. Plaschke, J. Halekas, G. Hospodarsky, J. Burch, I. Gingell, L.-J. Chen, A. Retino, and Y. Khotyaintev (2023), The Persistent Mystery of Collisionless Shocks, in *Bull. American Astron. Soc.*, vol. 55, p. 134, [10.3847/25c2cfcb.9053575b](https://doi.org/10.3847/25c2cfcb.9053575b).
- [113] Goodrich, K. A., L. B. Wilson III, S. Schwartz, I. J. Cohen, D. L. Turner, P. Whittlesey, A. Caspi, R. Rose, K. Smith, R. Allen, D. Burgess, D. Caprioli, P. Cassak, J. Eastwood, J. Giacalone, I. Gingell, C. Haggerty, J. Halekas, G. Hospodarsky, G. Howes, J. Juno, Y. Khotyaintsev, K. Klein, H. Kucharek, B. Lembège, E. Lichko, T. Liu, D. Malaspina, M. F. Marcucci, C. Mazelle, K. Meziane, F. Plaschke, A. Retino, C. Russell, E. Scime, D. Sibeck, M. Stevens, J. TenBarge, I. Vasko, S. Wang, L. Wang, and H. Zhang (2023), Multi-point Assessment of the Kinematics of Shocks (MAKOS): A Heliophysics Mission Concept Study, in *Bull. American Astron. Soc.*, vol. 55, p. 135, [10.3847/25c2cfcb.431a46a0](https://doi.org/10.3847/25c2cfcb.431a46a0).
- [114] Gopalswamy, N., S. Christe, S. Fung, Q. Gong, L. Jian, S. Kanekal, C. Kay, T. Kucera, J. Leake, P. Mäkelä, A. Shih, S. Tadikonda, N. Viall, L. B. Wilson III, S. Yashiro, L. Golub, E. DeLuca, K. Reeves, A. Sterling, S. Savage, A. Winebarger, C. DeForest, M. Desai, D. Seaton, J. Lazio, E. Jensen, W. Manchester, N. Sachdeva, B. Wood,

List of Refereed Publications

Lynn B. Wilson III

- J. Kooi, P. Hess, D. Wexler, S. Bale, S. Krucker, N. Hurlburt, M. DeRosa, A. Pevtsov, G. Petrie, S. Trpathy, K. Jain, S. Gosain, S. Kholikov, J. Zhao, P. Scherrer, P. Rajaguru, T. Woods, M. Kenney, J. Zhang, C. Scolini, K. Cho, and Y.-d. Park (2023), The Multi-view Observatory for Solar Terrestrial Science (MOST), in *Bull. American Astron. Soc.*, vol. 55, p. 138, [10.3847/25c2cfef.0c98a944](https://doi.org/10.3847/25c2cfef.0c98a944).
- [115] Haggerty, C., R. Bandyopadhyay, J. TenBarge, P. Cassak, A. Chasapis, J. Juno, L. B. Wilson III, L. Sorriso-Valvo, M. Sitnov, I. Gingell, J. Shuster, K. Klein, W. H. Matthaeus, Y. Yang, S. Adhikari, M. Shay, M. Swisdak, S. Servidio, L. Arzamasskiy, F. Guo, S. Wang, J. Verniero, S. Oughton, M. Kunz, M. H. Barbhuiya, J. Dahlin, N. Ahmadi, J. Drake, E. Lichko, D. Caprioli, J. Squire, H. Arnold, M. Wan, O. Pezzi, D. Trotta, A. Arya, G. Howes, and T. Parashar (2023), The Physics of Collisionless Dissipation in the Heliosphere, in *Bull. American Astron. Soc.*, vol. 55, p. 146, [10.3847/25c2cfef.f79b0456](https://doi.org/10.3847/25c2cfef.f79b0456).
- [116] Howes, G. G., P. Cassak, C. Chen, C. Haggerty, J. Juno, K. Klein, J. TenBarge, J. Verniero, D. Verscharen, and L. B. Wilson III (2023), Revolutionizing our Understanding of Particle Energization in Space Plasmas Using On-Board Wave-Particle Correlator Instrumentation, in *Bull. American Astron. Soc.*, vol. 55, p. 175, [10.3847/25c2cfef.23f6bc8a](https://doi.org/10.3847/25c2cfef.23f6bc8a).
- [117] Jensen, E. A., N. Gopalswamy, L. B. Wilson III, L. Jian, S. Fung, T. Nieves-chinchilla, M. Shelton, L. Li, M. Deshpande, L. Purves, J. Lazio, W. Manchester, B. Wood, J. Kooi, D. Wexler, S. Bale, A. Pevtsov, and M. Kenny (2023), The Faraday Effect Tracker of Coronal and Heliospheric Structures (FETCH) Instrument, in *Bull. American Astron. Soc.*, vol. 55, p. 191, [10.3847/25c2cfef.d7dbef9a](https://doi.org/10.3847/25c2cfef.d7dbef9a).
- [118] Kenny, M. N., N. Mathews, M. Abler, A. Glenn, J. Verniero, A. Brosius, M. C. M. Cheung, K. van der Sande, J. Olson, N. Murphy, E. Lichko, D. Schaffner, A. Halford, J. Egedal, P. Sharma Pyakurel, B. Thompson, M. L. Stevens, B. J. Lynch, R. C. Allen, S. T. Badman, S. Vines, T. Niembro, B. Alterman, C. Johnston, L.-J. Chen, L. B. Wilson III, A. Jaynes, G. Kerr, S. Guidoni, T. Carter, S. Gibson, D. Malaspina, C. Haggerty, F. Carcaboso, A. Greeley, P. Cassak, A. Breneman, A. Higginson, M. Shumko, A. Pulkkinen, M. Miesch, A. Malanushenko, K. Nykyri, M. Velli, A. Marble, T. Y. Chen, J. G. Mitchell, E. Palmerio, A. Narock, R. Leamon, and K. Paulson (2023), Gender Diversity in Heliophysics, in *Bull. American Astron. Soc.*, vol. 55, p. 199, [10.3847/25c2cfef.0e9841dd](https://doi.org/10.3847/25c2cfef.0e9841dd).
- [119] Kooi, J., D. Wexler, E. Jensen, B. Wood, T. Nieves-Chinchilla, W. Manchester, A. Pevtsov, L. Jian, M. Kenny, L. B. Wilson III, S. Fung, and N. Gopalswamy (2023), How to Advance Studies of Coronal Faraday Rotation, in *Bull. American Astron. Soc.*, vol. 55, p. 218, [10.3847/25c2cfef.a7135e72](https://doi.org/10.3847/25c2cfef.a7135e72).
- [120] Kooi, J., D. Wexler, E. Jensen, B. Wood, T. Nieves-Chinchilla, W. Manchester, A. Pevtsov, L. Jian, M. Kenny, L. B. Wilson III, S. Fung, and N. Gopalswamy (2023), Faraday Rotation Methods to Detect Coronal Currents and MHD Wave Activity, in *Bull. American Astron. Soc.*, vol. 55, p. 220, [10.3847/25c2cfef.f1df4e2a](https://doi.org/10.3847/25c2cfef.f1df4e2a).

List of Refereed Publications

Lynn B. Wilson III

- [121] Kooi, J., D. Wexler, E. Jensen, B. Wood, T. Nieves-Chinchilla, W. Manchester, A. Pevtsov, L. Jian, M. Kenny, L. B. Wilson III, S. Fung, and N. Gopalswamy (2023), Probing the Magnetic Field Structure of Coronal Mass Ejections with Faraday Rotation, in *Bull. American Astron. Soc.*, vol. 55, p. 221, [10.3847/25c2feb.0609a250](https://doi.org/10.3847/25c2feb.0609a250).
- [122] Raouafi, N. E., et al., and L. B. Wilson III (2023), Firefly: The Case for a Holistic Understanding of the Global Structure and Dynamics of the Sun and the Heliosphere, in *Bull. American Astron. Soc.*, vol. 55, p. 333, [10.3847/25c2feb.c647a83d](https://doi.org/10.3847/25c2feb.c647a83d).
- [123] Turner, D. L., L. B. Wilson III, K. Goodrich, I. J. Cohen, T. Z. Liu, S. J. Schwartz, D. Caprioli, C. Haggerty, I. Gingell, M. Hill, E. Provornikova, P. Mostafavi, P. Kollmann, P. Brandt, R. McNutt, and B. Lavraud (2023), Cross-scale physics and the acceleration of particles in collisionless plasmas throughout the Heliosphere and beyond: I. Collisionless shocks, in *Bull. American Astron. Soc.*, vol. 55, p. 398, [10.3847/25c2feb.7f60730e](https://doi.org/10.3847/25c2feb.7f60730e).
- [124] Wilson III, L. B., K. Goodrich, D. Turner, I. Cohen, P. Whittlesey, and S. Schwartz (2023), The necessity of accurate measurements of thermal velocity distribution functions in the solar wind, in *Bull. American Astron. Soc.*, vol. 55, p. 432, [10.3847/25c2feb.10220a90](https://doi.org/10.3847/25c2feb.10220a90).
- [125] Wexler, D. B., W. Manchester, L. K. Jian, L. B. Wilson III, N. Gopalswamy, P. Song, J. E. Kooi, B. van der Holst, and E. A. Jensen (2023), Investigating a Solar Wind Stream Interaction Region using Interplanetary Spacecraft Radio Signals: A Magnetohydrodynamic Simulation Study, *Astrophys. J.*, **955**(90), 13, [10.3847/1538-4357/acedac](https://doi.org/10.3847/1538-4357/acedac).
- [126] Goodrich, K., I. J. Cohen, S. J. Schwartz, L. B. Wilson III, D. L. Turner, A. Caspi, K. Smith, R. Rose, P. L. Whittlesey, and F. Plaschke (2023), The Multi-point Assessment of the Kinematics of Shocks (MAKOS), *Front. Astron. Space Sci.*, **10**, 14, [10.3389/fspas.2023.1199711](https://doi.org/10.3389/fspas.2023.1199711).
- [127] Collinson, G. A., H. Hietala, F. Plaschke, T. Karlsson, L. B. Wilson III, M. Archer, M. Battarbee, X. Blanco-Cano, C. Bertucci, D. Long, M. Opher, N. Sergis, C. Gasque, T. Liu, S. Raptis, S. Burne, R. Frahm, T. Zhang, and R. Futaana (2023), Shocklets and Short Large Amplitude Magnetic Structures (SLAMS) in the high Mach foreshock of Venus, *Geophys. Res. Lett.*, **50**(18), e2023GL104,610, [10.1029/2023GL104610](https://doi.org/10.1029/2023GL104610).
- [128] Voshchepynets, A., O. Agapitov, L. B. Wilson III, V. Angelopoulos, S. T. Alnussirat, M. Balikhin, M. Hlebena, I. Korol, D. E. Larson, D. Mitchell, C. Owen, and A. Rahmati (2023), Multi-Point Detection of the Powerful Gamma Ray Burst GRB221009A Propagation through the Heliosphere on October 9, 2022, *Astrophys. J. Lett.*, **956**(L4), 8, [10.3847/2041-8213/acf933](https://doi.org/10.3847/2041-8213/acf933).
- [129] Wilson III, L. B., C. S. Salem, and J. W. Bonnell (2023), Spacecraft floating potential measurements for the *Wind* spacecraft, *Astrophys. J. Suppl.*, **269**(52), 10, [10.3847/1538-4365/ad0633](https://doi.org/10.3847/1538-4365/ad0633).
- [130] Wilson III, L. B., M. L. Stevens, J. C. Kasper, K. G. Klein, B. Maruca, S. D. Bale, T. A. Bowen, M. P. Pulupa, and C. S. Salem (2023), Erratum: “The Statistical Properties of

List of Refereed Publications

Lynn B. Wilson III

Solar Wind Temperature Parameters Near 1 au”, *Astrophys. J. Suppl.*, **269**(62), 12, [10.3847/1538-4365/ad07de](https://doi.org/10.3847/1538-4365/ad07de).

- [131] Gopalswamy, N., S. Christe, S. F. Fung, Q. Gong, J. R. Gruesbeck, L. K. Jian, S. G. Kanekal, C. Kay, T. A. Kucera, J. E. Leake, L. Li, P. Mäkelä, P. Nikulla, N. L. Reginald, A. Shih, S. K. Tadikonda, N. Viall, L. B. Wilson III, S. Yashiro, L. Golub, E. DeLuca, K. Reeves, A. Sterling, A. R. Winebarger, C. DeForest, D. M. Hassler, D. B. Seaton, M. I. Desai, P. S. Mokashi, T. J. W. Lazio, E. A. Jensen, W. B. Manchester, N. Sachdeva, B. Wood, J. E. Kooi, P. Hess, D. B. Wexler, S. D. Bale, S. Krucker, N. Hurlburt, M. DeRosa, S. Gosain, K. Jain, S. Kholikov, G. J. D. Petrie, A. Pevtsov, S. C. Tripathy, J. Zhao, P. H. Scherrer, S. P. Rajaguru, T. Woods, M. Kenney, J. Zhang, C. Scolini, K.-S. Cho, Y.-D. Park, and B. V. Jackson (2024), The Multiview Observatory for Solar Terrestrial Science (MOST), *J. Atmos. Solar-Terr. Phys.*, **254**, 106,165, [10.1016/j.jastp.2023.106165](https://doi.org/10.1016/j.jastp.2023.106165).
- [132] Carcaboso, F., M. Dumbović, C. Kay, D. Lario, L. K. Jian, L. B. Wilson III, R. Gómez-Herrero, M. Temmer, S. G. Heinemann, T. Nieves-Chinchilla, and A. M. Veronig (2024), Unveiling the Journey of a Highly Inclined CME: Insights from the March 13, 2012 Event with 110° Longitudinal Separation, *Astron. & Astrophys.*, **684**(A90), 17, [10.1051/0004-6361/202347083](https://doi.org/10.1051/0004-6361/202347083).
- [133] Krupar, V., O. Kruparova, A. Szabo, L. B. Wilson III, F. Nemec, O. Santolík, M. P. Pulupa, X. Bonnin, S. D. Bale, and M. Maksimovic (2024), Radial Variations in Solar Type III Radio Bursts, *Astrophys. J. Lett.*, **967**(L32), 11, [10.3847/2041-8213/ad4be7](https://doi.org/10.3847/2041-8213/ad4be7).
- [134] Hietala, H., D. Trotta, A. Fedeli, L. B. Wilson III, L. Vuorinen, and J. T. Coburn (2024), Candidates for downstream jets at interplanetary shocks, *Mon. Not. Roy. Astron. Soc.*, **531**(2), 2415–2421, [10.1093/mnras/stae1294](https://doi.org/10.1093/mnras/stae1294).
- [135] Baalman, L., S. Hunziker, A. Péronne, J. W. Kirchner, K.-H. Glassmeier, D. M. Malaspina, L. B. Wilson III, C. Strähl, S. Chadda, and V. J. Sterken (2024), A solar rotation signature in cosmic dust I: frequency analysis of dust particle impacts on the *Wind* spacecraft, *Astron. & Astrophys.*, **689**(A329), 28, [10.1051/0004-6361/202450069](https://doi.org/10.1051/0004-6361/202450069).
- [136] Bohdan, A., A. Tran, L. Sironi, and L. B. Wilson III (2024), Electrostatic Waves and Electron Holes in Simulations of Low-Mach Quasi-Perpendicular Shocks, *Astrophys. J.*, **974**(37), 18, [10.3847/1538-4357/ad6b0c](https://doi.org/10.3847/1538-4357/ad6b0c).
- [137] Bessho, N., L.-J. Chen, M. Hesse, J. Ng, L. B. Wilson III, J. E. Stawarz, and H. Madanian (2024), Electron acceleration in magnetic islands in quasi-parallel shocks, *Astrophys. J.*, **975**(93), 22, [10.3847/1538-4357/ad7678](https://doi.org/10.3847/1538-4357/ad7678).
- [138] Shi, X., A. Artemyev, V. Angelopoulos, T. Z. Liu, and L. B. Wilson III (2025), Compound electron acceleration at planetary foreshocks, *Nature Comm.*, **16**(1), 11, [10.1038/s41467-024-55464-8](https://doi.org/10.1038/s41467-024-55464-8).
- [139] Raptis, S., M. Lindberg, T. Z. Liu, D. L. Turner, A. Lalti, Y. Zhou, P. Kajdič, A. Kouloumvakos, D. G. Sibeck, L. Vuorinen, A. Michael, M. Shumko, A. Osmane,

lynn.b.wilsoniii@gmail.com

List of Refereed Publications

List of Refereed Publications

Lynn B. Wilson III

- E. Krämer, L. Turc, T. Karlsson, C. Katsavrias, L. B. Wilson III, H. Madanian, X. Blanco-Cano, I. J. Cohen, and P. C. Escoubet (2025), Multimission Observations of Relativistic Electrons and High-speed Jets Linked to Shock-generated Transients, *Astrophys. J. Lett*, **981**(L10), 8, [10.3847/2041-8213/adb154](https://doi.org/10.3847/2041-8213/adb154).
- [140] Katsavrias, C., G. Nicolaou, G. Livadiotis, A. Vourlidas, L. B. Wilson III, and I. Sandberg (2025), On the Polytopic Index of Interplanetary Coronal Mass Ejections near L1, *Astron. & Astrophys.*, **695**(A146), 11, [10.1051/0004-6361/202452984](https://doi.org/10.1051/0004-6361/202452984).
- [141] Krupar, V., E. P. Kontar, J. Soucek, L. B. Wilson III, A. Szabo, O. Kruparova, H. A. S. Reid, M. Hajos, D. Pisa, O. Santolík, M. M., and J. S. Pickett (2025), First Detection of Low-Frequency Striae in Interplanetary Type III Radio Bursts, *Astrophys. J. Lett.*, **985**(L27), 8, [10.3847/2041-8213/add688](https://doi.org/10.3847/2041-8213/add688).
- [142] Wilson III, L. B., J. G. Mitchell, A. Szabo, I. C. Jebaraj, M. L. Stevens, D. M. Malaspina, G. D. Berland, A. Kouloumvakos, S. D. Bale, R. Livi, J. S. Halekas, and C. M. S. Cohen (2025), Large amplitude whistler precursors and >MeV particles observed at a weak interplanetary shock by *Parker Solar Probe*, *Astrophys. J.*, [10.3847/1538-4357/add6a8](https://doi.org/10.3847/1538-4357/add6a8), accepted May 8, 2025.
- [143] Howes, G. G., A. Felix, C. R. Brown, C. C. Haggerty, J. Juno, J. M. TenBarge, L. B. Wilson III, and D. Caprioli (2025), Velocity-Space Signatures of Shock-Drift Acceleration at Quasiperpendicular Collisionless Shocks, *Phys. Plasma*, accepted on May 29, 2025.
- [144] Haggerty, C. C., P. Cassak, D. Caprioli, M. Hasan Barbhuiya, L. B. Wilson III, and D. L. Turner (2023), The Importance of Heat Flux in Quasi-Parallel Collisionless Shocks, *Astrophys. J. Lett.*, submitted Jun. 27, 2023.
- [145] Roytershteyn, V., L. B. Wilson III, L.-J. Chen, M. Gedalin, and N. Pogorelov (2024), Magnitude of Short-Wavelength Electric Field Fluctuations in Simulations of Collisionless Plasma Shocks, *Astrophys. J.*, submitted Sep. 4, 2024.
- [146] Dhamane, O., A. Raghav, K. Kumbhar, S. Benella, R. D’Amicis, D. Telloni, K. Ghag, U. Sharma, P. Maurya, L. B. Wilson III, and J. Huang (2025), The MHD-Kinetic-Scale Coupling via Magnetic Helicity Decomposition, *Astrophys. J.*, in preparation.
- [147] Fordin, S., M. A. Shay, and L. B. Wilson III (2024), A Statistical Study of Waves in the Solar Wind Using Machine Learning, *Astrophys. J.*, in preparation.
- [148] Péronne, A., L. R. Baalman, O. C. StCyr, L. B. Wilson III, D. M. Malaspina, and V. J. Sterken (2024), Dust depletion detected by *Wind*/WAVES during CMEs and SIRs, *Astron. & Astrophys.*, in preparation.
- [149] Kromyda, L., D. M. Malaspina, R. E. Ergun, J. Halekas, M. L. Stevens, D. Vech, A. Chasapis, J. L. Verniero, S. D. Bale, J. W. Bonnell, T. D. de Wit, K. Goetz, K. Goodrich, P. Harvey, R. J. MacDowall, M. P. Pulupa, A. W. Case, J. C. Kasper, K. E. Korreck, D. E. Larson, R. Livi, P. L. Whittlesey, and L. B. Wilson III (2022), Fast Electrostatic Waves with Frequency Shifts in the Solar Wind Sunward of 1/3 AU, *Astrophys. J.*, in preparation.

List of Datasets/Repositories

Lynn B. Wilson III

- [150] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2019), Supplement to: Electron energy partition across interplanetary shocks, [10.5281/zenodo.2875806](https://zenodo.org/record/105281/files/2875806).
- [151] Davis, L., C. A. Cattell, L. B. Wilson III, Z. A. Cohen, A. W. Breneman, and E. L. M. Hanson (2019), Artemis observations of plasma waves in laminar and perturbed interplanetary shocks: Shock parameters, [10.5281/zenodo.3475589](https://zenodo.org/record/105281/files/3475589).
- [152] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2020), Supplement to: Electron energy partition across interplanetary shocks: III. analysis, [10.5281/zenodo.3627284](https://zenodo.org/record/105281/files/3627284).
- [153] Wilson III, L. B. (2023), *Wind* WAVES TDSF dataset, [10.5281/zenodo.10107360](https://zenodo.org/record/105281/files/10107360).
- [154] Wilson III, L. B. (2021), Space plasma missions idl software library, [10.5281/zenodo.6141586](https://zenodo.org/record/105281/files/6141586).
- [155] Wilson III, L. B., et al. (2021), *Wind* lz calibration and decommutation software, [10.5281/zenodo.4451304](https://zenodo.org/record/105281/files/4451304).
- [156] Wilson III, L. B., C. S. Salem, and J. W. Bonnell (2023), *Wind* spacecraft floating potential measurements, [10.5281/zenodo.8364797](https://zenodo.org/record/105281/files/8364797).

List of arXiv Submissions

Lynn B. Wilson III

- [157] 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](#).
- [158] 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](#).
- [159] 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](#).
- [160] 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](#).
- [161] 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](#).
- [162] 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](#).
- [163] 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](#).
- [164] Wilson III, L. B., Sibeck, D. G., Turner, D. L., Osmane, A., Caprioli, D. & Angelopoulos, V. Relativistic electrons produced by foreshock disturbances. *ArXiv e-prints* (2016). [1607.02183](#).
- [165] Osmane, A., D. L. Turner, L. B. Wilson III, , A. P. Dimmock, and T. I. Pulkkinen (2017), Subcritical growth of electron phase-space holes in planetary radiation belts, *ArXiv e-prints*, [1705.07467](#).
- [166] Liu, T. Z., V. Angelopoulos, H. Hietala, and L. B. Wilson III (2017), Statistical study of particle acceleration in the core of foreshock transients, *ArXiv e-prints*, [1706.04993](#).
- [167] Liu, T. Z., S. Lu, V. Angelopoulos, H. Hietala, and L. B. Wilson III (2017), Fermi acceleration of electrons inside foreshock transient cores, *ArXiv e-prints*, [1706.05047](#).
- [168] Horaites, K., S. Boldyrev, L. B. Wilson, III, A. F. Viñas, and J. Merka (2017), Kinetic Theory and Fast Wind Observations of the Electron Strahl, *ArXiv e-prints*, [1706.03464](#).

List of arXiv Submissions

Lynn B. Wilson III

- [169] Wilson III, L. B., M. L. Stevens, J. C. Kasper, K. Klein, B. Maruca, S. D. Bale, T. Bowen, M. P. Pulupa, and C. S. Salem (2018), The statistical properties of solar wind temperature parameters near 1 AU, *ArXiv e-prints*, [1802.08585](#).
- [170] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson, III, B. Giles, T. E. Moore, C. T. Russell, R. B. Torbert, and J. L. Burch (2018), Observational evidence of magnetic reconnection in the terrestrial bow shock transition region, *arXiv e-prints*, [1812.09337](#).
- [171] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2019), Electron energy partition across interplanetary shocks: I. Methodology and Data Product, *arXiv e-prints*, [1902.01476](#).
- [172] Cohen, Z. A., C. A. Cattell, A. W. Breneman, L. Davis, P. Grul, K. Kersten, L. B. Wilson III, and J. R. Wygant (2019), The rapid variability of electric field waves within and near interplanetary shock ramps: STEREO observations, *arXiv e-prints* [1909.08176](#).
- [173] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2019), Electron energy partition across interplanetary shocks: II. Statistics, *arXiv e-prints* [1909.09050](#).
- [174] Wilson III, L. B., L.-J. Chen, S. Wang, S. J. Schwartz, D. L. Turner, M. L. Stevens, J. C. Kasper, A. Osmane, D. Caprioli, S. D. Bale, M. P. Pulupa, C. S. Salem, and K. A. Goodrich (2020), Electron energy partition across interplanetary shocks: III. Analysis, *arXiv e-prints* [2001.09231](#).
- [175] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, R. Denton, J. Ng, B. L. Giles, R. B. Torbert, and J. L. Burch (2020), Ion-scale current structures in Short Large-Amplitude Magnetic Structures, *arXiv e-prints*, [2004.10714](#).
- [176] Wilson III, L. B., A. L. Brosius, N. Gopalswamy, T. Nieves-Chinchilla, A. Szabo, K. Hurley, T. Phan, J. Kasper, N. Lugaz, I. G. Richardson, C. H. K. Chen, D. Verscharen, R. T. Wicks, and J. M. TenBarge (2020), A Quarter Century of *Wind* Spacecraft Discoveries, *ESSOAr Preprint*, [10.1002/essoar.10504309.1](#), preprint on <https://essoar.org> (2020).
- [177] Madanian, H., M. I. Desai, S. J. Schwartz, L. B. Wilson III, S. A. Fuselier, J. L. Burch, O. Le Contel, D. L. Turner, K. Ogasawara, A. L. Brosius, C. T. Russell, R. E. Ergun, N. Ahmadi, D. J. Gershman, and P. A. Lindqvist (2020), The Dynamics of a High Mach Number Quasi-Perpendicular Shock: MMS Observations, *arXiv e-prints*, [arXiv:2011.12346](#).
- [178] Howes, G. G., J. Juno, J. M. TenBarge, I. Wilson, Lynn B., D. Caprioli, and A. Spitkovsky (2020), A Field-Particle Correlation Analysis of a Perpendicular Magnetized Collisionless Shock: I. Theory, *arXiv e-prints*, [arXiv:2011.13841](#).
- [179] Juno, J., G. G. Howes, J. M. TenBarge, I. Wilson, Lynn B., A. Spitkovsky, D. Caprioli, K. G. Klein, and A. Hakim (2020), A Field-Particle Correlation Analysis of a

List of arXiv Submissions

Lynn B. Wilson III

Perpendicular Magnetized Collisionless Shock: II. Vlasov Simulations, *arXiv e-prints*, arXiv:2011.13829.

- [180] Schwartz, S. J., R. E. Ergun, H. Kucharek, L. B. Wilson III, L.-J. Chen, K. A. Goodrich, D. L. Turner, I. Gingell, H. Madanian, D. J. Gershman, and R. Strangeway (2021), Evaluating the de Hoffmann-Teller cross-shock potential at real collisionless shocks, *ESSOAr Preprint*, [10.1002/essoar.10506367.1](https://doi.org/10.1002/essoar.10506367.1), preprint on <https://essoar.org> (2021).

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [181] 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).
- [182] 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).
- [183] 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).
- [184] 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).
- [185] 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).
- [186] Kellogg, P. J., Cattell, C. A. & Wilson III, L. B. Electron trapping in large amplitude whistlers. *AGU Fall Meeting Abstracts* C1 (2009).
- [187] 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).
- [188] 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).
- [189] 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).
- [190] 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).
- [191] 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).
- [192] 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.

- [193] 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).
- [194] 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).
- [195] 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).
- [196] 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.
- [197] 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.
- [198] 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.
- [199] 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. Oct. 1-5, 2012, Boulder, CO.
- [200] 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.
- [201] 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

- [202] 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.
- [203] Tang, X., Cattell, C. A., Dombeck, 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.
- [204] 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).
- [205] 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.
- [206] 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.
- [207] 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.
- [208] 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.
- [209] 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.
- [210] 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. Mar. 10-14, 2014, Applied Physics Laboratory, Johns Hopkins University, Laurel, MD.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [211] 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.
- [212] 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 rope-type small interplanetary transients by non-force-free methods. *2014 SHINE Conference* (2014). URL <http://shinecon.org/shine2014/abstractlisting.php>. June 23rd- 27th, 2014, Telluride, CO.
- [213] 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.
- [214] 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.
- [215] 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.
- [216] 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.
- [217] 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.
- [218] 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.
- [219] 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

lynn.b.wilsoniii@gmail.com

List of Non-refereed Talks/Presentations

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

Probe Plus. *AGU Fall Meeting Abstracts* SM41A-4232 (2014). Dec. 15-19, 2014, San Francisco, CA.

- [220] 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.
- [221] 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. July 29–31, 2015, Applied Physics Laboratory, Laurel, MD.
- [222] 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).
- [223] 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.
- [224] 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.
- [225] 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.
- [226] 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.
- [227] 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.
- [228] 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*

lynn.b.wilsoniii@gmail.com

List of Non-refereed Talks/Presentations

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

Conference Abstracts, 3009 (2016). URL <http://meetingorganizer.copernicus.org/EGU2016/EGU2016-3009-1.pdf>. April 17–22, 2016, Vienna, Austria.

- [229] 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.
- [230] 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).
- [231] 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.
- [232] 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.
- [233] 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.
- [234] 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.
- [235] 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.
- [236] 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.
- [237] 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.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [238] 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.
- [239] 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.
- [240] 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.
- [241] 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.
- [242] 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.
- [243] Horaites, K., S. Boldyrev, L. B. Wilson III, A. F. Viñas, and J. Merka (2017), Kinetic Theory and Fast Wind Observations of the Electron Strahl, in *APS Meeting Abstracts*, p. NP11.00162, Oct. 23-27, 2017, Milwaukee, WI.
- [244] Wilson III, L. B., A. Koval, A. Szabo, M. L. Stevens, J. C. Kasper, C. A. Cattell, and V. V. Krasnoselskikh (2017), The structure of low Mach number, low beta, quasi-perpendicular collisionless shocks, in *APS Meeting Abstracts*, p. GO6.00006, Oct. 23-27, 2017, Milwaukee, WI.
- [245] Adrian, M. L., O. C. St Cyr, L. B. Wilson III, C. Schiff, L. W. Sacks, D. J. Chai, S. Z. Queen, and J. E. Sedlak (2017), The Distribution of Interplanetary Dust Near 1-AU: An MMS Perspective, *AGU Fall Meeting Abstracts*, pp. SH51C-2515, Dec. 11-15, 2017, New Orleans, LA.
- [246] Chen, L.-J., L. B. Wilson III, S. Wang, N. Bessho, A. F. Viñas, H. Lai, C. T. Russell, S. J. Schwartz, M. Hesse, T. E. Moore, J. L. Burch, D. J. Gershman, B. L. Giles, R. B. Torbert, R. E. Ergun, J. Dorelli, R. J. Strangeway, W. R. Paterson, B. Lavraud, Y. V. Khotyaintsev, et al. (2017), Ion Thermalization and Electron Heating across Quasi-Perpendicular Shocks Observed by the MMS Mission, *AGU Fall Meeting Abstracts*, pp. SH53B-05, Dec. 11-15, 2017, New Orleans, LA.
- [247] Cohen, Z., A. W. Breneman, C. A. Cattell, L. Davis, P. Grul, K. Kersten, and L. B. Wilson III (2017), STEREO Observations of Waves in the Ramp Regions of Interplanetary Shocks, *AGU Fall Meeting Abstracts*, pp. SH53B-02, Dec. 11-15, 2017, New Orleans, LA.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [248] Giagkiozis, S., L. B. Wilson III, et al. (2017), Statistical Study of the Properties of Magnetosheath Lion Roars using MMS observations, *AGU Fall Meeting Abstracts*, pp. SM11A–2281, Dec. 11–15, 2017, New Orleans, LA.
- [249] Horaites, K., S. Boldyrev, L. B. Wilson III, A. F. Viñas, and J. Merka (2017), Kinetic Theory and Fast Wind Observations of the Electron Strahl, *AGU Fall Meeting Abstracts*, pp. SH33A–2765, Dec. 11–15, 2017, New Orleans, LA.
- [250] Jones Greeley, A. D., S. G. Kanekal, D. N. Baker, B. Klecker, W. Li, L. B. Wilson III, and Q. Schiller (2017), Quantifying the contribution of microburst precipitation to global electron loss, *AGU Fall Meeting Abstracts*, pp. SM43A–2699, Dec. 11–15, 2017, New Orleans, LA.
- [251] Koval, A., L. B. Wilson III, A. Szabo, M. L. Stevens, J. C. Kasper, and D. A. Biesecker (2017), Magnetosonic-whistler Precursor Waves at Quasi-perpendicular Interplanetary Shocks: DSCOVR and Wind observations, *AGU Fall Meeting Abstracts*, pp. SH51A–2476, Dec. 11–15, 2017, New Orleans, LA.
- [252] Liu, T. Z., S. Lu, V. Angelopoulos, H. Hietala, and L. B. Wilson III (2017), Fermi Acceleration of Electrons inside Foreshock Transient Cores, *AGU Fall Meeting Abstracts*, pp. SM11A–2275, Dec. 11–15, 2017, New Orleans, LA.
- [253] Osmane, A., L. B. Wilson III, D. L. Turner, , A. P. Dimmock, and T. I. Pulkkinen (2017), Subcritical Growth of Electron Phase-space Holes in Planetary Radiation Belts, *AGU Fall Meeting Abstracts*, pp. SM43F–04, Dec. 11–15, 2017, New Orleans, LA.
- [254] St Cyr, O. C., L. B. Wilson III, K. Rockcliffe, A. Mills, T. Nieves-Chinchilla, M. L. Adrian, and D. M. Malaspina (2017), Investigations of Wind/WAVES Dust Impacts, *AGU Fall Meeting Abstracts*, pp. SH23D–2682, Dec. 11–15, 2017, New Orleans, LA.
- [255] Turner, D. L., L. B. Wilson III, S. J. Schwartz, T. Z. Liu, A. Osmane, J. F. Fennell, J. B. Blake, A. N. Jaynes, K. Goodrich, B. Mauk, D. J. Gershman, L. A. Avanov, R. J. Strangeway, R. B. Torbert, and J. L. Burch (2017), Characteristics of Energetic Particle Acceleration in Hot Flow Anomalies Observed by MMS, *AGU Fall Meeting Abstracts*, pp. SM11A–2276, Dec. 11–15, 2017, New Orleans, LA.
- [256] Wilson III, L. B., A. Koval, A. Szabo, M. L. Stevens, J. C. Kasper, C. A. Cattell, and V. V. Krasnoselskikh (2017), The structure of low Mach number, low beta, quasi-perpendicular shocks, *AGU Fall Meeting Abstracts*, pp. SH51A–2474, Dec. 11–15, 2017, New Orleans, LA.
- [257] Eriksson, S., G. Lapenta, P. A. Cassak, D. L. Newman, L. B. Wilson III, and D. J. Gershman (2018), On Magnetic Reconnection Exhausts in the Solar Wind and Associated Perturbations of the Out-of-Plane Magnetic Field, *The 17th Annual International Astrophysics Conference: Dissipative and Heating Processes in Collisionless Plasma: the Solar Corona, the Solar Wind, and the Interstellar Medium*, Santa Fe, New Mexico, Mar. 5–9, 2018.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [258] Lario, D., R. B. Decker, E. C. Roelof, L. Berger, R. Wimmer-Schweingruber, J. Giacalone, L. B. Wilson III, and Viñas, A. F. (2018), The Case of Flat Proton Spectra in Large Solar Energetic Particle Events, *The 17th Annual International Astrophysics Conference: Dissipative and Heating Processes in Collisionless Plasma: the Solar Corona, the Solar Wind, and the Interstellar Medium*, Santa Fe, New Mexico, Mar. 5–9, 2018.
- [259] Ofman, L., L. B. Koval, A. Wilson III, and A. Szabo (2018), Understanding the Role of Alpha Particles in Oblique Heliospheric Shock Oscillations, *Triennial Earth-Sun Summit*, May 20–24, 2018, Leesburg, Virginia.
- [260] Collinson, G., L. B. Wilson III, N. Omid, D. G. Sibeck, J. Espley, C. Fowler, D. Mitchell, J. Grebowsky, C. Mazelle, S. Ruhunusiri, J. Halekas, R. Frahm, T. Zhang, Y. Futaana, B. Jakosky, and R. Lillis (2018), Shaking the sky of Mars: Ionospheric compression, energization, and escape resulting from the impact of ultra-low frequency magnetosonic waves in the solar wind, *AOGS-AGU (WPGM) Joint Assembly*, p. PS17, June 3–8, 2018, Honolulu, Hawaii.
- [261] Goodrich, K. A., R. E. Ergun, D. Newman, S. J. Schwartz, L. B. Wilson III, F. D. Wilder, J. L. Burch, R. B. Torbert, Y. Khotyaintsev, P.-A. Lindqvist, R. J. Strangeway, C. T. Russell, D. J. Gershman, and B. L. Giles (2018), Generation and Micro-scale Effects of Electrostatic Waves in an Oblique Shock Crossing, *AOGS-AGU (WPGM) Joint Assembly*, pp. ST03–A037, June 3–8, 2018, Honolulu, Hawaii.
- [262] Lario, D., L. Berger, L. B. Wilson III, R. B. Decker, R. F. Wimmer-Schweingruber, and J. Giacalone (2018), Evolution of the suprathermal proton population around interplanetary shocks, *The 15th International Solar Wind Conference*, Brussels, Belgium, Jun. 18–22, 2018.
- [263] Koval, A., L. B. Wilson III, A. Szabo, M. L. Stevens, J. C. Kasper, and D. A. Biesecker (2018), Multi-point observations of quasi-perpendicular interplanetary shock structures, *COSPAR*, **42**, July 14–22, 2018, Pasadena, California.
- [264] Wilson III, L. B., M. L. Stevens, J. C. Kasper, K. G. Klein, B. Maruca, S. D. Bale, T. A. Bowen, M. P. Pulupa, and C. S. Salem (2018), The statistical properties of solar wind temperature parameters near 1 AU, *2018 SHINE Conference*, July 30th – Aug. 3rd, 2018, Cocoa Beach, FL.
- [265] Wilson III, L. B. (2018), Scene setting talk for session ‘Global implications of kinetic-scale particle acceleration throughout the heliosphere’, *2018 SHINE Conference*, July 30th – Aug. 3rd, 2018, Cocoa Beach, FL.
- [266] Lario, D., L. Berger, L. B. Wilson III, R. B. Decker, R. F. Wimmer-Schweingruber, and J. Giacalone (2018), Suprathermal Proton Populations around Transient Interplanetary Shocks, *2018 SHINE Conference*, July 30th – Aug. 3rd, 2018, Cocoa Beach, FL.
- [267] Bessho, N., L.-J. Chen, S. Wang, L. B. Wilson III, and M. Hesse (2018), PIC simulation studies of magnetic reconnection in the shock transition and downstream regions of

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

Earth's bow shock, *AGU Fall Meeting Abstracts*, pp. SH31A-09, Dec. 10-14, 2018, Washington, D.C.

- [268] Chen, L.-J., S. Wang, L. B. Wilson III, S. J. Schwartz, N. Bessho, C. T. Russell, T. E. Moore, et al. (2018), An emerging new picture on plasma heating at Earth's quasi-perpendicular shocks, *AGU Fall Meeting Abstracts*, pp. SH33A-06, Dec. 10-14, 2018, Washington, D.C.
- [269] Collinson, G., L. B. Wilson III, N. Omid, D. G. Sibeck, J. R. Espley, C. M. Fowler, D. Mitchell, J. M. Grebowsky, C. X. Mazelle, S. Ruhunusiri, J. S. Halekas, R. A. Frahm, T. Zhang, Y. Futaana, and B. M. Jakosky (2018), Solar Wind induced waves in the skies of Mars: Ionospheric compression, energization, and escape resulting from the impact of ultra-low frequency magnetosonic waves generated upstream of the Martian bow shock, *AGU Fall Meeting Abstracts*, pp. SM23D-3209, Dec. 10-14, 2018, Washington, D.C.
- [270] Cooper, J. F., R. E. Coleman Jr., and L. B. Wilson III (2018), Investigation of Solar Electron Hysteresis Event in June 2011 as Observed by STEREO-B IMPACT, *AGU Fall Meeting Abstracts*, pp. SH31C-3650, Dec. 10-14, 2018, Washington, D.C.
- [271] Davis, L., C. A. Cattell, Z. Cohen, A. W. Breneman, and L. B. Wilson III (2018), ARTEMIS Observations of Waves in Laminar and Turbulent Interplanetary Shocks, *AGU Fall Meeting Abstracts*, pp. SH31C-3637, Dec. 10-14, 2018, Washington, D.C.
- [272] Goodrich, K. A., R. E. Ergun, S. J. Schwartz, L. B. Wilson III, D. Newman, F. D. Wilder, J. Holmes, A. Johlander, J. L. Burch, R. B. Torbert, Y. Khotyaintsev, P.-A. Lindqvist, R. J. Strangeway, C. T. Russell, D. J. Gershman, and B. L. Giles (2018), Impulsively Reflected Ions: A New Theory for Ion Acoustic Wave Growth in Collisionless Shocks, *AGU Fall Meeting Abstracts*, pp. SH33A-04, Dec. 10-14, 2018, Washington, D.C.
- [273] Koval, A., L. B. Wilson III, and A. Szabo (2018), Multi-point observations of quasi-perpendicular interplanetary shock structures, *AGU Fall Meeting Abstracts*, pp. SH31C-3635, Dec. 10-14, 2018, Washington, D.C.
- [274] Wilson III, L. B., M. L. Stevens, J. C. Kasper, K. Klein, B. Maruca, S. D. Bale, T. Bowen, M. P. Pulupa, and C. S. Salem (2018), The statistical properties of solar wind temperature parameters near 1 AU observed by *Wind*, in *APS Meeting Abstracts*, p. TP11.00156, Nov. 5-9, 2018, Portland, OR.
- [275] Wilson III, L. B., M. L. Stevens, J. C. Kasper, K. Klein, B. Maruca, S. D. Bale, T. Bowen, M. P. Pulupa, and C. S. Salem (2018), The statistical properties of solar wind temperature parameters near 1 AU observed by *Wind*, *AGU Fall Meeting Abstracts*, pp. SH51E-2904, Dec. 10-14, 2018, Washington, D.C.
- [276] Wilson III, L. B. (2019), Electron energy partition across interplanetary shocks near 1 AU, *2019 GEM Conference*, June 22nd - 28th, 2019, Santa Fe, NM.
- [277] Wilson III, L. B. (2019), Electron energy partition across interplanetary shocks near 1 AU, *2019 SHINE Conference*, Aug. 5th - 9th, 2019, Boulder, CO.

lynn.b.wilsoniii@gmail.com

List of Non-refereed Talks/Presentations

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [278] Farrugia, C. J., N. Lugaz, B. J. Vasquez, W. Yu, K. Paulson, R. B. Torbert, L. B. Wilson III, and F. T. Gratton (2019), A Study of a Magnetic Cloud Propagating through Large-Amplitude Alfvén Waves, *2019 SHINE Conference*, Aug. 5th – 9th, 2019, Boulder, CO.
- [279] Chen, L.-J., S. Wang, J. Ng, A. Rager, L. B. Wilson III, and B. L. Giles (2019), Electron dynamics driven by nonlinear lower hybrid waves in a magnetic reconnection layer, in *APS Meeting Abstracts*, p. GO4.00002, 61st Annual Meeting of the APS Division of Plasma Physics, Oct. 21–25, 2019, Fort Lauderdale, FL.
- [280] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, B. L. Giles, T. Moore, C. T. Russell, R. B. Torbert, and J. L. Burch (2019), Magnetic reconnection observation in the Earth’s bow shock transition region, in *APS Meeting Abstracts*, p. PP10.00014, 61st Annual Meeting of the APS Division of Plasma Physics, Oct. 21–25, 2019, Fort Lauderdale, FL.
- [281] Wilson III, L. B. (2019), Electron energy partition across interplanetary shocks near 1 AU, in *APS Meeting Abstracts*, p. GO4.00011, 61st Annual Meeting of the APS Division of Plasma Physics, Oct. 21–25, 2019, Fort Lauderdale, FL.
- [282] Adrian, M. L., O. C. St Cyr, M. L. Kaiser, M. R. Collier, L. B. Wilson III, C. Schiff, L. W. Sacks, D. J. Chai, S. Z. Queen, and J. E. Sedlak (2019), The Distribution of Interplanetary Dust Near 1-AU: Perspectives from STEREO and MMS, *AGU Fall Meeting Abstracts*, pp. P23C–3514, Dec. 9–13, 2019, San Francisco, CA.
- [283] Bessho, N., L.-J. Chen, S. Wang, M. Hesse, and L. B. Wilson III (2019), Evolution of the foreshock and shock dynamics caused by the turning of the interplanetary magnetic field associated with extreme geomagnetic storms, *AGU Fall Meeting Abstracts*, pp. SM13E–3348, Dec. 9–13, 2019, San Francisco, CA.
- [284] Brosius, A. L., L. B. Wilson III, G. Collinson, and C. M. Anderson (2019), VEX observations of solar wind-ionosphere coupling via ULF waves, *AGU Fall Meeting Abstracts*, pp. SH23B–3385, Dec. 9–13, 2019, San Francisco, CA.
- [285] Eriksson, S., D. N. Baker, D. L. Newman, G. Lapenta, and L. B. Wilson III (2019), Magnetic Reconnection Exhausts and Magnetic Flux Rope Structures in the Solar Wind: Spatial Scales at 1 AU and Heliosheath at 100 AU, *AGU Fall Meeting Abstracts*, pp. SH51E–3322, Dec. 9–13, 2019, San Francisco, CA.
- [286] McGuire, R. E., L. B. Wilson III, and A. Szabo (2019), The Wind Spacecraft: Highlights from 25 Years of Service, *AGU Fall Meeting Abstracts*, pp. SH43C–3375, Dec. 9–13, 2019, San Francisco, CA.
- [287] Koval, A., L. B. Wilson III, and A. Szabo (2019), Multi-point observations of quasi-perpendicular interplanetary shock structures by the Wind and DSCOVR spacecraft during 2015-2019, *AGU Fall Meeting Abstracts*, pp. SH23B–3379, Dec. 9–13, 2019, San Francisco, CA.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [288] Ofman, L., L. B. Wilson III, A. Koval, and A. Szabo (2019), The effects of Alpha Particles on Oblique High Mach Number Heliospheric Shocks, *AGU Fall Meeting Abstracts*, pp. SH23B–3401, Dec. 9–13, 2019, San Francisco, CA.
- [289] Oka, M., F. Otsuka, S. Matsukiyo, L. B. Wilson III, T. D. Phan, T. Amano, M. Hoshino, M. R. Argall, O. Le Contel, D. J. Gershman, J. L. Burch, R. B. Torbert, J. C. Dorelli, B. L. Giles, R. E. Ergun, C. T. Russell, and P.-A. Lindqvist (2019), Electron Scattering by Low-Frequency Whistler Waves at Earth’s Bow Shock, *AGU Fall Meeting Abstracts*, pp. SH21A–06, Dec. 9–13, 2019, San Francisco, CA.
- [290] Wilson III, L. B. (2019), Electron energy partition across interplanetary shocks near 1 AU, *AGU Fall Meeting Abstracts*, pp. SH23B–3394, Dec. 9–13, 2019, San Francisco, CA.
- [291] Lario, D., L. Berger, L. B. Wilson III, R. B. Decker, and E. C. Roelof (2020), A long-lasting field-aligned suprathermal proton beam upstream of a transient interplanetary shock, *The 19th Annual International Astrophysics Conference: From the Sun’s atmosphere to the edge of the galaxy: A story of connections*, Santa Fe, New Mexico, Mar. 8–13, 2020.
- [292] Wilson III, L. B. (2020), Electron velocity distribution functions near interplanetary shocks, *Royal Astronomical Society Specialist Discussion Meeting: The near-Sun solar wind at solar minimum*, on Mar. 13, 2020, Burlington House, Piccadilly, London, UK **Cancelled: COVID-19**.
- [293] Wilson III, L. B. (2020), Electron velocity distribution functions near interplanetary shocks, *Parker One*, on Mar. 23–27, 2020, The Johns Hopkins University, Applied Physics Lab, Laurel, MD, USA **Postponed: COVID-19**.
- [294] Ofman, L., L. B. Wilson III, A. Koval, and A. Szabo (2020), Exploring the effects of α particles on heliospheric oblique shocks, *Isradynamics 2020: Dynamical Processes in Space Plasmas*, held Apr. 19–26, 2020, Eilat, Israel.
- [295] Bessho, N., L.-J. Chen, J. Ng, S. Wang, M. Hesse, and L. B. Wilson III (2020), Reconnecting and non-reconnecting current sheets in the Earth’s quasi-parallel bow shock, *MMS Spring 2020 Science Working Team Meeting*, on Apr. 15–16, 2020, Virtual Meeting.
- [296] Chen, L.-J., S. Wang, O. Le Contel, A. Rager, J. Ng, M. Hesse, J. Drake, J. Dorelli, N. Bessho, D. Graham, L. B. Wilson III, T. E. Moore, B. L. Giles, W. R. Paterson, B. Lavraud, K. Genestreti, R. Nakamura, Y. V. Khotyaintsev, R. E. Ergun, R. B. Torbert, J. L. Burch, C. Pollock, C. Russell, P.-A. Lindqvist, and L. A. Avanov (2020), Lower hybrid drift (LHD) waves in a magnetotail EDR, *MMS Spring 2020 Science Working Team Meeting*, on Apr. 15–16, 2020, Virtual Meeting.
- [297] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, R. Denton, J. Ng, B. L. Giles, R. B. Torbert, and J. L. Burch (2020), d_i -scale current structures in SLAMS as energy conversion sites, *MMS Spring 2020 Science Working Team Meeting*, on Apr. 15–16, 2020, Virtual Meeting.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [298] Wilson III, L. B. (2020), Electron velocity distribution functions near 1 AU, *MMS Spring 2020 Science Working Team Meeting*, on Apr. 15-16, 2020, Virtual Meeting.
- [299] Wilson III, L. B. (2020), Electron energy partition across interplanetary shocks near 1 AU, *Parker Solar Probe Theory Group Telecon*, on Apr. 23, 2020.
- [300] Wilson III, L. B. (2020), Energy partition across interplanetary shocks, *MMS FPI Team Telecon*, on Jul. 9, 2020.
- [301] Wilson III, L. B. (2020), Electron energy partition at interplanetary shocks, *2020 Virtual GEM Conference*, online Jul. 21–23, 2020.
- [302] Bessho, N., L.-J. Chen, S. Wang, J. Ng, M. Hesse, and L. B. Wilson III (2020), Kinetic instabilities and magnetic reconnection in the Earth’s quasi-parallel bow shock, *2020 Virtual GEM Conference*, on Jul. 20-23, 2020, Virtual Meeting.
- [303] Brosius, A. L., G. Collinson, and L. B. Wilson III (2020), Effect of MVA criteria on upstream wave properties for >100,000 Venus Express intervals, *2020 Virtual GEM Conference*, on Jul. 20-23, 2020, Virtual Meeting.
- [304] Madanian, H., D. L. Turner, D. J. Gershman, B. L. Giles, L. B. Wilson III, et al. (2020), Modulation of the quasi-perpendicular shock structure by reflected ions at high Mach numbers, *2020 Virtual GEM Conference*, on Jul. 20-23, 2020, Virtual Meeting.
- [305] Roytershteyn, V., L.-J. Chen, and L. B. Wilson III (2020), Waves and Instabilities in High-resolution PIC Simulations of Oblique Shocks, *2020 Virtual GEM Conference*, on Jul. 20-23, 2020, Virtual Meeting.
- [306] Turner, D. L., D. J. Gershman, L. B. Wilson III, et al. (2020), Direct multipoint observations capturing the formation of a collisionless, supercritical, fast magnetosonic shock, *2020 Virtual GEM Conference*, on Jul. 20-23, 2020, Virtual Meeting.
- [307] Bessho, N., L.-J. Chen, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2020), The structure of reconnection layers in Earth’s quasi-parallel bow shock, *MMS Fall 2020 Science Working Team Meeting*, on Oct. 6–8, 2020, Virtual Meeting.
- [308] Bessho, N., L.-J. Chen, S. Wang, J. Ng, M. Hesse, and L. B. Wilson III (2020), Kinetic waves and reconnecting current sheets in a quasi-parallel shock, *MMS Fall 2020 Science Working Team Meeting*, on Oct. 6–8, 2020, Virtual Meeting.
- [309] Bessho, N., L.-J. Chen, S. Wang, J. Ng, M. Hesse, and L. B. Wilson III (2020), Kinetic instabilities and magnetic reconnection in the Earth’s quasi-parallel bow shock, *MMS Fall 2020 Science Working Team Meeting*, on Oct. 6–8, 2020, Virtual Meeting.
- [310] Madanian, H., M. I. Desai, S. J. Schwartz, L. B. Wilson III, S. A. Fuselier, J. L. Burch, O. Le Contel, D. L. Turner, K. Ogasawara, A. L. Brosius, C. T. Russell, R. E. Ergun, N. Ahmadi, D. J. Gershman, and P.-A. Lindqvist (2020), What makes a shock layer?, *MMS Fall 2020 Science Working Team Meeting*, on Oct. 6–8, 2020, Virtual Meeting.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [311] Bessho, N., L.-J. Chen, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2020), Magnetic reconnection in the Earth's bow shock due to kinetic instabilities, in *APS Meeting Abstracts*, p. GM14.00005, 62nd Annual Meeting of the APS Division of Plasma Physics, Nov. 9–13, 2020, Virtual.
- [312] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, R. E. Denton, J. Ng, B. L. Giles, R. B. Torbert, and J. L. Burch (2020), Reconnection observed at Earth's bow shock, in *APS Meeting Abstracts*, p. GM14.00003, 62nd Annual Meeting of the APS Division of Plasma Physics, Nov. 9–13, 2020, Virtual.
- [313] Bessho, N., L.-J. Chen, S. Wang, J. Ng, L. B. Wilson III, and M. Hesse (2020), Kinetic instabilities in the shock transition region and magnetic reconnection in the Earth's quasi-parallel bow shock, *AGU Fall Meeting Abstracts*, pp. SM036–03, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [314] Brosius, A. L., L. B. Wilson III, A. Szabo, and A. Koval (2020), Minimum Variance Analysis of Planetary and Interplanetary Plasmas, *AGU Fall Meeting Abstracts*, pp. SH042–0017, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [315] Farrugia, C. J., N. Lugaz, L. B. Wilson III, D. G. Sibeck, N. Erkaev, B. J. Vasquez, and R. B. Torbert (2020), Wind Observations of an Unexpected Precursor to Flapping of the Distant Tail, *AGU Fall Meeting Abstracts*, pp. SH042–0015, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [316] Fordin, S., M. Shay, L. B. Wilson III, and B. A. Maruca (2020), Identifying and Characterizing Whistler Waves in the Solar Wind Using Machine Learning, *AGU Fall Meeting Abstracts*, pp. NG004–0023, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [317] Koval, A., L. Ofman, L. B. Wilson III, and A. Szabo (2020), Oblique High Mach Number Heliospheric Shocks: the Role of Alpha Particles, *AGU Fall Meeting Abstracts*, pp. SH042–0012, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [318] Roytershteyn, V., L. B. Wilson III, and L.-J. Chen (2020), Waves and Instabilities in High-Resolution PIC simulations of Oblique Shocks, *AGU Fall Meeting Abstracts*, pp. SH047–05, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [319] Brosius, A. L., and L. B. Wilson III (2021), Minimum variance analysis of diverse heliospheric environments: from universal to endemic wave geometries and their relationships to astrophysical phenomena, *USNC-URSI National Radio Science Meeting*, p. 1081UR, held on Jan. 4–9, 2021, Virtual Meeting.
- [320] Malaspina, D. M., R. E. Ergun, L. B. Wilson III, S. D. Bale, J. Bonnell, T. D. de Wit, K. Goetz, P. Harvey, R. MacDowall, and M. P. Pulupa (2021), Wave Mode Identification and Implications of Plasma Waves Near the Electron Cyclotron Frequency in the Near Sun Solar Wind, *USNC-URSI National Radio Science Meeting*, p. 1029, held on Jan. 4–9, 2021, Virtual Meeting.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [321] Bessho, N., L.-J. Chen, S. Wang, L. B. Wilson III, M. Hesse, and J. Ng (2021), Electron acceleration in electron-only reconnection in the Earth's quasi-parallel bow shock, *MMS Spring 2021 Science Working Team Meeting*, on Apr. 5-9, 2021, Virtual Meeting.
- [322] Schwartz, S. J., R. E. Ergun, H. Kucharek, L. B. Wilson III, L.-J. Chen, K. A. Goodrich, D. L. Turner, I. Gingell, H. Madanian, D. J. Gershman, and R. Strangeway (2021), Evaluating the de Hoffmann-Teller cross-shock potential at real collisionless shocks, *MMS Spring 2021 Science Working Team Meeting*, on Apr. 5-9, 2021, Virtual Meeting.
- [323] Starkey, M. J., S. A. Fuselier, M. I. Desai, S. J. Schwartz, C. T. Russell, H. Wei, H. Madanian, J. Mukherjee, and L. B. Wilson III (2021), MMS observations of Accelerated He⁺ Pickup Ions at Quasi-perpendicular Shocks, *MMS Spring 2021 Science Working Team Meeting*, on Apr. 5-9, 2021, Virtual Meeting.
- [324] Turner, D. L., K. Goodrich, L. B. Wilson III, I. J. Cohen, and S. J. Schwartz (2021), Future goals and ideas for collisionless shock research with MMS and beyond, *MMS Spring 2021 Science Working Team Meeting*, on Apr. 5-9, 2021, Virtual Meeting.
- [325] Liu, M., L. B. Wilson III, et al. (2021), Properties of A Supercritical Quasi-Perpendicular Interplanetary Shock Propagating in Super-Alfvenic Solar Wind: from MHD to Kinetic Scales, in *EGU General Assembly Conference Abstracts, EGU General Assembly Conference Abstracts*, vol. 23, pp. EGU21–4908, April 13 – 30, 2021, Virtual.
- [326] Malaspina, D. M., L. B. Wilson III, et al. (2021), Plasma Waves Near the Electron Cyclotron Frequency in the Near Sun Solar Wind: Wave Mode Identification and Driving Instabilities, in *EGU General Assembly Conference Abstracts, EGU General Assembly Conference Abstracts*, vol. 23, pp. EGU21–955, April 13 – 30, 2021, Virtual.
- [327] Allen, R. C., S. K. Vines, L. B. Wilson III, J. Borovsky, G. C. Ho, L. K. Jian, G. Li, N. Lugaz, B. Maruca, D. Verscharen, J. Vievering, and R. F. Wimmer-Schweingruber (2021), The Need to Investigate the Variability and Multi-Scale Nature of the Solar Wind and Its Impact on Energetic Particles, *Heliophysics 2050 Workshop*, p. 2109, on May 3–7, 2021, Virtual Meeting.
- [328] Alterman, B. L., J. C. Kasper, R. J. Leamon, S. W. McIntosh, M. L. Stevens, and L. B. Wilson III (2021), Solar Wind Helium Measurements Demonstrate the Importance of Unified and Consistent Long Duration In Situ Plasma Data, *Heliophysics 2050 Workshop*, p. 2064, on May 3–7, 2021, Virtual Meeting.
- [329] Chen, L.-J., M. Samara, R. Michell, J. Collier, M. Dorelli, S. Fung, D. Gershman, J. Karpen, J. Ng, D. Rowland, D. Sibeck, S. Wang, A. Halford, E. Zesta, B. Giles, I. Vasko, J. E. Stawarz, D. L. Turner, W. Paterson, H. Madanian, and L. B. Wilson III (2021), Kinetic Effects of Solar Driving on Magnetospheres, *Heliophysics 2050 Workshop*, p. 2122, on May 3–7, 2021, Virtual Meeting.
- [330] Gopalswamy, N., T. A. Kucera, J. E. Leak, R. J. MacDowall, L. B. Wilson III, S. G. Kanekal, Q. Gong, L. Golub, E. DeLuca, S. S. K. Tadikonda, D. B. Seaton, S. Savage, A. R. Winebarger, K. Reeves, C. DeForest, A. Pevtsov, N. Hurlburt, M. Desai,

lynn.b.wilsoniii@gmail.com

List of Non-refereed Talks/Presentations

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- T. Bastian, J. Lazio, E. A. Jensen, W. C. Manchester, B. Wood, J. Kooi, D. B. Wexler, S. D. Bale, S. C. Tripathi, and L. K. Jian (2021), The Multiview Observatory for Solar Terrestrial Science (MOST), *Heliophysics 2050 Workshop*, p. 2039, on May 3–7, 2021, Virtual Meeting.
- [331] Halford, A. J., K. Garcia-Sage, M. Samara, D. Welling, B. Walsh, M. S. F. Kirk, B. J. Thompson, Y. J. Rivera, S. Lejosne, R. M. McGranaghan, E. MacDonald, D. L. Turner, R. C. Allen, A. N. Jaynes, S. K. Vines, R. Nikoukar, K. LLera, J. E. Stawarz, I. Gingell, K. J. Genestreti, L. Blum, R. J. Filwett, A. A. Saikin, D. Sibeck, J. Vievering, A. K. Higginson, P. Mostafavi, M. D. Hartinger, E. A. Atz, A. D. Greeley, L. B. Wilson III, et al. (2021), Enabling and Advancing Scientific Innovation Through Cultivating a Collaborative, Inclusive, Diverse, and Safe Community Culture, *Heliophysics 2050 Workshop*, p. 2130, on May 3–7, 2021, Virtual Meeting.
- [332] Jaynes, A. N., I. Cohen, A. Ridley, P. J. Erickson, B. L. Alterman, L. B. Wilson III, A. J. Halford, R. M. McGranaghan, R. J. Filwett, L. H. Regoli, F. Gasperini, K. LLera, R. Nikoukar, M. D. Hartinger, J. E. Stawarz, B. Ferdousi, M. R. Argall, J. Bortnik, L. V. Goodwin, D. L. Turner, S. G. Claudepierre, and A. Keesee (2021), An Open-Access Community: Why We Need to Prioritize Our Scientific Environment as a Welcoming Space, *Heliophysics 2050 Workshop*, p. 2140, on May 3–7, 2021, Virtual Meeting.
- [333] Turner, D. L., I. J. Cohen, M. Gkioulidou, G. Clark, P. Brandt, A. Rymer, J. Vievering, A. Chartier, V. Merkin, E. Provornikova, A. Ukhorskiy, J. Westlake, R. Nikoukar, L. Paxton, R. Millan, J. Slavin, F. Bagenal, J. Bortnik, A. N. Jaynes, L. B. Wilson III, G. A. DiBraccio, D. Gershman, E. L. Kepko, J. Goldstein, R. M. McGranaghan, S. G. Claudepierre, and C. Gabrielse (2021), Re-Envisioning Heliophysics for 2050: A Compelling Discipline with a Unified Identity, New Brand, and Long-Term Vision, *Heliophysics 2050 Workshop*, p. 2087, on May 3–7, 2021, Virtual Meeting.
- [334] Wilson III, L. B. (2021), Accurate Measurements of Thermal Velocity Distribution Functions in the Solar Wind, *Heliophysics 2050 Workshop*, p. 2002, on May 3–7, 2021, Virtual Meeting.
- [335] Lario, D., I. G. Richardson, E. Palmerio, N. Lugaz, S. D. Bale, M. L. Stevens, C. M. S. Cohen, J. Giacalone, D. G. Mitchell, A. Szabo, T. Nieves-Chinchilla, L. B. Wilson III, E. R. Christian, M. E. Hill, D. J. McComas, R. L. McNutt Jr., N. A. Schwadron, and M. E. Wiedenbeck (2021), Comparative analysis of the 2020 November 29 solar energetic particle event observed by Parker Solar Probe, *Parker One Conference*, on Jun. 14–18, 2021, The Johns Hopkins University, Applied Physics Lab, Laurel, MD, USA.
- [336] Wilson III, L. B. (2021), Particle acceleration by nonlinear, magnetosonic-whistler precursors, *MMS Community Workshop*, Oct. 19–21, 2021, Waterville Valley, NH.
- [337] Howes, G. G., J. Juno, C. R. Brown, C. C. Haggerty, J. M. TenBarge, D. Caprioli, and A. Spitkovsky (2021), Fully Exploiting 3D-3V Phase Space to Understand Plasma Heating and Particle Acceleration in Collisionless Shocks, in *APS Meeting Abstracts*, p. CM10.00002, 63rd Annual Meeting of the APS Division of Plasma Physics, Nov. 8–12, 2021.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [338] Ofman, L., L. B. Wilson III, A. Szabo, and A. Koval (2021), Modeling the effects of α particles on collisionless oblique heliospheric shocks, in *APS Meeting Abstracts*, p. BM10.00006, 63rd Annual Meeting of the APS Division of Plasma Physics, Nov. 8–12, 2021.
- [339] Bessho, N., L.-J. Chen, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2021), Electron energization by electron-only reconnection in the Earth’s quasi-parallel bow shock, *AGU Fall Meeting Abstracts*, pp. SH34B–07, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [340] Collinson, G. A., R. Ramstad, A. Gloer, L. B. Wilson III, and A. L. Brosius (2021), Encounters with the ionosphere and tail ray of Venus by Parker Solar Probe, *AGU Fall Meeting Abstracts*, pp. SM52C–03, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [341] Farrugia, C. J., N. Lugaz, I. G. Richardson, N. A. Al-Haddad, R. M. Winslow, E. Davies, L. B. Wilson III, and R. B. Torbert (2021), How Magnetic Reconnection Inside Coronal Mass Ejections May Affect Their Coherence, *AGU Fall Meeting Abstracts*, pp. SH35B–2053, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [342] Fordin, S., M. A. Shay, L. B. Wilson III, and B. A. Maruca (2021), Identifying and Characterizing Waves in the Solar Wind Using Convolutional Neural Networks, *AGU Fall Meeting Abstracts*, pp. NG45B–0553, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [343] Gopalswamy, N., T. A. Kucera, J. E. Leak, R. J. MacDowall, L. B. Wilson III, S. G. Kanekal, A. Y. Shih, S. Christe, Q. Gong, N. M. Viall, S. S. K. Tadikonda, S. F. Fung, S. Yashiro, P. Makela, L. Golub, E. DeLuca, K. Reeves, D. B. Seaton, S. Savage, A. R. Winebarger, C. DeForest, M. I. Desai, T. Bastian, J. Lazio, E. A. Jensen, W. C. Manchester, B. E. Wood, J. E. Kooi, D. B. Wexler, S. D. Bale, S. Krucker, N. E. Hurlburt, M. L. DeRosa, A. A. Pevtsov, S. C. Tripathi, K. Jain, S. Gosain, G. J. D. Petrie, S. Kholikov, J. Zhao, P. H. Scherrer, T. N. Woods, P. Chamberlin, and M. Kenny (2021), The Multiview Observatory for Solar Terrestrial Science (MOST), *AGU Fall Meeting Abstracts*, pp. SH12A–07, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [344] Goodrich, K., S. J. Schwartz, L. B. Wilson III, R. E. Ergun, R. B. Torbert, J. L. Burch, Y. V. Khotyaintsev, P.-A. Lindqvist, F. D. Wilder, D. J. Gershman, R. J. Strangeway, and B. L. Giles (2021), Electrostatic Waves and Their Relation to Intermittent Shock Heating: An MMS Case Study, *AGU Fall Meeting Abstracts*, pp. SH25G–13, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [345] Howes, G. G., J. Juno, C. R. Brown, C. C. Haggerty, J. M. TenBarge, D. Caprioli, A. Spitkovsky, and L. B. Wilson III (2021), Fully Exploiting 3D-3V Phase Space to Understand Plasma Heating and Particle Acceleration in Collisionless Shocks, *AGU Fall Meeting Abstracts*, pp. SH25G–20, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [346] Jensen, E. A., W. Manchester, S. F. Fung, N. Gopalswamy, L. K. Jian, M. Kenny, J. E. Kooi, J. Lazio, L. Li, T. Nieves-Chinchilla, A. A. Pevtsov, D. B. Wexler, L. B. Wilson III, B. E. Wood, S. D. Bale, and T. Bastian (2021), Novel Magnetic Field and Electron Density Measurements of CMEs (within 1/2 AU) with the Proposed Multiview

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

Observatory for Solar Terrestrial Science (MOST) Mission, *AGU Fall Meeting Abstracts*, pp. SH33A–08, Dec. 13–17, 2021, New Orleans, LA, Hybrid.

- [347] Kromyda, L., D. M. Malaspina, R. E. Ergun, J. L. Verniero, L. B. Wilson III, M. L. Stevens, J. S. Halekas, A. Chasapis, D. Vech, T. D. de Wit, S. D. Bale, J. W. Bonnell, K. Goetz, K. Goodrich, P. Harvey, R. J. MacDowall, M. P. Pulupa, D. E. Larson, R. Livi, P. L. Whittlesey, and J. C. Kasper (2021), Short Duration Electrostatic Waves with Frequency Shifts in the Solar Wind Sunward of 1/3 AU, *AGU Fall Meeting Abstracts*, pp. SH41A–08, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [348] Kuzichev, I., I. Vasko, J. Torsiello, L. B. Wilson III, and A. Artemyev (2021), Whistler Wave Generation Around Interplanetary Shocks, *AGU Fall Meeting Abstracts*, pp. SH25G–11, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [349] Liu, M., Z. Yang, Y. D. Liu, B. Lembege, K. Issautier, L. B. Wilson III, S. Zhao, K. Jagarlamudi, and X. Zhao (2021), Properties of A Supercritical Quasi-Perpendicular Interplanetary Shock Propagating in the Terrestrial Electron Foreshock Region, *AGU Fall Meeting Abstracts*, pp. SH25G–08, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [350] Wilson III, L. B., A. L. Brosius, D. J. Gershman, S. J. Schwartz, H. Madanian, I. J. Cohen, D. L. Turner, and K. Goodrich (2021), Particle acceleration by nonlinear, magnetosonic-whistler precursors, *AGU Fall Meeting Abstracts*, pp. SH25G–10, Dec. 13–17, 2021, New Orleans, LA, Hybrid.
- [351] Jensen, E., N. Gopalswamy, J. Lazio, J. Kooi, S. Fung, L. K. Jian, M. Kenny, L. Li, W. Manchester, T. Nieves-Chinchilla, A. Pevtsov, D. Wexler, L. B. Wilson III, B. Wood, S. D. Bale, and T. Bastian (2022), Investigating Quiescent and Transient Magnetic Structures in the Inner Heliosphere using Faraday Rotation, the FETCH instrument on the MOST *awesome* mission Concept, *Union Radio-Scientifique Internationale General Assembly*, p. 1185, 2022 USNC-URSI National Radio Science Meeting (NRSN), Jan. 4-8, 2022, Boulder, Colorado.
- [352] Wilson III, L. B., K. A. Goodrich, D. L. Turner, I. J. Cohen, P. Whittlesey, and S. J. Schwartz (2022), Accurate measurements of thermal velocity distribution functions in the solar wind, *Heliophysics 2050: Measurement Techniques and Technologies Workshop*, p. 4009, on Feb. 23–25, 2022, Virtual Meeting.
- [353] Kooi, J. E., E. A. Jensen, N. Gopalswamy, D. Wexler, W. Manchester, L. B. Wilson III, S. D. Bale, T. Bastian, L. K. Jian, J. Lazio, T. Nieves-Chinchilla, B. E. Wood, S. F. Fung, A. Pevtsov, M. N. Kenny, L. Li, L. Purves, G. Voellmer, and Q. Gong (2022), FETCH Instrument Concept: Spacecraft-to-spacecraft Faraday Rotation Observations to Enhance Future Space Weather Forecasting, *Space Weather Workshop*, Collaboration: Advancing the Space Weather Enterprise, Virtual Meeting on Apr. 26–28, 2022.
- [354] Bessho, N., L.-J. Chen, J. E. Stawarz, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2022), Strong reconnection electric fields in electron-only reconnection and regular reconnection in shock-driven turbulence, *MMS Community Workshop*, May 9–13, 2022, Daytona Beach, FL.

lynn.b.wilsoniii@gmail.com

List of Non-refereed Talks/Presentations

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [355] Schwartz, S. J., K. A. Goodrich, L. B. Wilson III, D. L. Turner, K. Trattner, H. Kucharek, I. Gingell, S. Fuselier, I. J. Cohen, H. Madanian, R. E. Ergun, D. J. Gershman, and R. J. Strangeway (2022), “Shocks at Earth” Energy partition at collisionless supercritical quasiperpendicular shocks, *Magnetic Reconnection Workshop 2022*, May 16–20, 2022, Monterey, CA.
- [356] Bessho, N., L.-J. Chen, J. E. Stawarz, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2022), Strong reconnection electric fields, outflow speeds, and particle acceleration in shock-driven reconnection, *Magnetic Reconnection Workshop 2022*, May 16–20, 2022, Monterey, CA.
- [357] Eriksson, S., M. Swisdak, J. M. Weygand, A. Mallet, D. L. Newman, G. Lapenta, L. B. Wilson III, D. L. Turner, and B. Larsen (2022), Characteristics of Multi-Scale Current Sheets in the Solar Wind at 1 AU Associated with Magnetic Reconnection and the Case for a Heliospheric Current Sheet Avalanche, *Parker Two Conference*, on Jun. 21–24, 2022, The Johns Hopkins University, Applied Physics Lab, Laurel, MD, USA.
- [358] Wexler, D. B., E. A. Jensen, J. E. Kooi, W. Manchester, L. B. Wilson III, S. D. Bale, T. Bastian, L. K. Jian, J. Lazio, T. Nieves-Chinchilla, B. E. Wood, N. Gopalswamy, S. F. Fung, A. A. Pevtsov, M. Kenny, L. Li, L. R. Purves, G. Voellmer, and Q. Gong (2022), Investigating Solar Wind Stream Interaction Regions using Interplanetary Spacecraft Radio Signals: A Simulation Study of Faraday Rotation and Electron Column Density, *Triennial Earth-Sun Summit (TESS)*, p. 00, Aug. 8–12, 2022, Bellevue, WA.
- [359] Baalman, L., S. Hunziker, P. Strub, D. Malaspina, U. Schroppenegger, H. Krüger, M. E. Hervig, A. Jaynes, B. Kurth, L. B. Wilson III, and V. Sterken (2022), Investigating the outer regions of the heliosphere with measurements and simulations of interstellar dust, *Europlanet Science Congress*, **16**, held September 18–23, 2022, Grenada, Spain.
- [360] Hervig, M. E., D. Malaspina, L. B. Wilson III, V. Sterken, S. Hunziker, J. M. C. Plane, and D. E. Siskind (2022), Long-term observations of meteoric influx from SOFIE, Wind, and Ulysses, *20th International EISCAT Symposium*, held August 15–19, 2022, Stockholm University, Sweden.
- [361] Trotta, D., H. Hietala, T. Horbury, L. B. Wilson III, N. Dresing, and R. Vanio (2022), Multi-spacecraft observations of a strong interplanetary shock at Solar Orbiter and L1, *Solar Orbiter 8*, held September 12–15, 2022, Belfast, Ireland.
- [362] Bessho, N., L.-J. Chen, J. E. Stawarz, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2022), Electron acceleration and heating in magnetic reconnection in the shock turbulence in the Earth’s bow shock, in *APS Meeting Abstracts*, p. 0.00000, 64th Annual Meeting of the APS Division of Plasma Physics, Oct. 17–21, 2022, Spokane, WA.
- [363] Wilson III, L. B. (2022), Particle acceleration by nonlinear whistler precursors and possible reformation, in *APS Meeting Abstracts*, p. 0.00000, 64th Annual Meeting of the APS Division of Plasma Physics, Oct. 17–21, 2022, Spokane, WA.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [364] Allen, R. C., E. J. Smith, B. J. Anderson, J. Borovsky, G. C. Ho, L. K. Jian, S. Krucker, S. Lepri, G. Li, S. Livi, N. Lugaz, D. M. Malaspina, B. A. Maruca, P. Mostafavi, J. M. Raines, D. Verscharen, J. Vievering, S. K. Vines, P. Whittlesey, L. B. Wilson III, and R. F. Wimmer-Schweingruber (2022), Interplanetary Mesoscale Observatory (Inter-Meso): A mission to untangle dynamic mesoscale structures throughout the heliosphere, *AGU Fall Meeting Abstracts*, pp. SH26A–07, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [365] Baalmann, L., S. Hunziker, P. Strub, D. M. Malaspina, U. Schroffenegger, H. Krüger, M. E. Hervig, A. N. Jaynes, W. S. Kurth, L. B. Wilson III, and V. J. Sterken (2022), A multi-mission study of interstellar dust in the heliosphere: observations and simulations, *AGU Fall Meeting Abstracts*, pp. SH43B–08, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [366] Bessho, N., L.-J. Chen, J. E. Stawarz, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2022), Electron acceleration and heating in magnetic reconnection in the transition region of the Earth’s bow shock, *AGU Fall Meeting Abstracts*, pp. SH15B–06, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [367] Eriksson, S., M. Swisdak, J. M. Weygand, A. Mallet, D. L. Newman, G. Lapenta, L. B. Wilson III, D. L. Turner, and B. Larsen (2022), Characteristics of Multi-Scale Current Sheets in the Solar Wind at 1 AU Associated with Magnetic Reconnection and the Case for a Cascading Heliospheric Current Sheet, *AGU Fall Meeting Abstracts*, pp. SH15B–02, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [368] Fordin, S., M. A. Shay, L. B. Wilson III, and B. J. Thompson (2022), Identifying Waves in the Solar Wind Using Convolutional Neural Networks, *AGU Fall Meeting Abstracts*, pp. SH42D–2310, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [369] Goodrich, K., S. J. Schwartz, L. B. Wilson III, A. Caspi, J. S. Halekas, G. B. Hospodarsky, L.-J. Chen, K. Smith, R. Rose, I. J. Cohen, D. L. Turner, P. L. Whittlesey, F. Plaschke, J. L. Burch, A. Retino, Y.-V. Khotyaintsev, J. Bowman, and D. Conner (2022), MAKOS: Multi-point Assessment of the Kinematics of Shocks, *AGU Fall Meeting Abstracts*, pp. SH45D–2373, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [370] Hietala, H., A. Fedeli, D. Trotta, and L. B. Wilson III (2022), Candidates for Downstream Jets at Interplanetary Shocks, *AGU Fall Meeting Abstracts*, pp. SM22A–61, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [371] Howes, G. G., J. Juno, C. R. Brown, C. C. Haggerty, S. Constantinou, J. M. TenBarge, D. Caprioli, A. Spitkovsky, and L. B. Wilson III (2022), Understanding the Kinetic Physics of Particle Energization at Quasiperpendicular Collisionless Shocks Using the Field-Particle Correlation Technique, *AGU Fall Meeting Abstracts*, pp. SH53A–04, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [372] Jensen, E. A., N. Gopalswamy, S. Fung, L. Li, M. Deshpande, M. Shelton, J. E. Kooi, S. D. Bale, W. Manchester, A. A. Pevtsov, D. Wexler, L. B. Wilson III, L. K. Jian, J. Lazio, T. Nieves-Chinchilla, B. E. Wood, T. Bastian, Q. Gong, M. Kenny, L. Purves, and G. Voellmer (2022), Investigating Magnetic Structure in the Inner Heliosphere using

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- Faraday Rotation, the FETCH instrument on the MOST mission, *AGU Fall Meeting Abstracts*, pp. SH34B–04, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [373] Manchester, W., E. A. Jensen, D. Wexler, J. E. Kooi, T. Nieves-Chinchilla, B. E. Wood, L. K. Jian, N. Gopalswamy, S. Fung, and L. B. Wilson III (2022), Determination of CME Structures with Faraday Rotation of Spacecraft Radio Signals: the FETCH Instrument on the MOST Mission, *AGU Fall Meeting Abstracts*, pp. SH26A–08, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [374] Trotta, D., H. Hietala, T. S. Horbury, L. B. Wilson III, N. Dresing, R. O. Vanio, and K. E. J. Kilpua (2022), Multi-Spacecraft Observations of Shocklets at an Interplanetary Shock, *AGU Fall Meeting Abstracts*, pp. SH33A–02, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [375] Wilson III, L. B., K. A. Goodrich, D. L. Turner, I. J. Cohen, P. L. Whittlesey, and S. J. Schwartz (2022), The need for accurate measurements of thermal velocity distribution functions in the solar wind, *AGU Fall Meeting Abstracts*, pp. SH32D–1796, Dec. 12–16, 2022, Chicago, IL, Hybrid.
- [376] Hietala, H., D. Trotta, L. B. Wilson III, A. Fedeli, and L. Vuorinen (2023), Candidates for downstream jets at interplanetary shocks, in *EGU General Assembly Conference Abstracts*, *EGU General Assembly Conference Abstracts*, vol. 25, pp. EGU23–12,727, April 23 – 28, 2023, held in Vienna, Austria.
- [377] Ofman, L., L. B. Wilson III, T. Nieves-Chinchilla, L. K. Jian, and A. Szabo (2023), Investigating the interactions of alpha particles in collisionless oblique heliospheric shocks, in *EGU General Assembly Conference Abstracts*, *EGU General Assembly Conference Abstracts*, vol. 25, pp. EGU23–16,725, April 23 – 28, 2023, held in Vienna, Austria.
- [378] Wilson III, L. B. (2023), Wind in the GGS and ISTP programs: How these missions helped inform our future solar wind measurements, *Symposium on the Future of Heliospheric Science: From Geotail and Beyond*, Geotail Memorial, held Mar. 28–31, 2023 in Tokyo, Japan.
- [379] Kasper, J. C., T. J. W. Lazio, A. Romero-Wolf, J. Lux, T. Neilsen, and L. B. Wilson III (2023), The Sun Radio Interferometer Space Experiment (SunRISE), *XXXVth URSI General Assembly and Scientific Symposium*, p. 0893, [10.46620/URSIGASS.2023.0893.ITUW9850](https://doi.org/10.46620/URSIGASS.2023.0893.ITUW9850), 2023 URSI GASS, Aug. 19-26, 2023, Sapporo, Japan.
- [380] Lazio, T. J. W., J. C. Kasper, A. Romero-Wolf, J. Lux, T. Neilsen, and L. B. Wilson III (2023), The Implementation of the Sun Radio Interferometer Space Experiment (SunRISE), *XXXVth URSI General Assembly and Scientific Symposium*, p. 2032, [10.46620/URSIGASS.2023.2032.JDYA6880](https://doi.org/10.46620/URSIGASS.2023.2032.JDYA6880), 2023 URSI GASS, Aug. 19-26, 2023, Sapporo, Japan.
- [381] Malaspina, D. M., L. B. Wilson III, A. Toma, J. Szalay, M. P. Pulupa, A. Al-Ghazwi, S. D. Bale, S. Chadda, T. Dudok de Wit, M. E. Hervig, V. Sterken, and

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- L. Baalmann (2023), Discoveries in Micrometeoroid Science Enabled by the Detection of Impact-Generated Plasmas using Electric Field Instruments on Spacecraft, *XXXVth URSI General Assembly and Scientific Symposium*, p. 0161, [10.46620/URSIGASS.2023.0161.TXGM5422](https://doi.org/10.46620/URSIGASS.2023.0161.TXGM5422), 2023 URSI GASS, Aug. 19-26, 2023, Sapporo, Japan.
- [382] Bessho, N., L.-J. Chen, M. Hesse, J. Ng, L. B. Wilson III, and J. E. Stawarz (2023), Electron acceleration mechanisms in magnetic reconnection and flux ropes in the Earth's quasi-parallel bow shock, *APS Meeting Abstracts*, PP11.00142, 65th Annual Meeting of the APS Division of Plasma Physics, Oct. 30 to Nov. 3, 2023, Denver, CO.
- [383] Haggerty, C. C., P. Cassak, D. Caprioli, M. Hasan Barbhuiya, L. B. Wilson III, and D. L. Turner (2023), Hydrodynamic Shock Modifications by the Heat Flux of Non-Thermal Particles, *APS Meeting Abstracts*, PP11.00145, 65th Annual Meeting of the APS Division of Plasma Physics, Oct. 30 to Nov. 3, 2023, Denver, CO.
- [384] Howes, G. G., J. Juno, C. Brown, C. Haggerty, S. Constantinou, J. TenBarge, D. Caprioli, A. Spitkovsky, and L. B. Wilson III (2023), Understanding the Kinetic Physics of Particle Energization at Quasiperpendicular Collisionless Shocks Using the Field-Particle Correlation Technique, *APS Meeting Abstracts*, PM09.00010, 65th Annual Meeting of the APS Division of Plasma Physics, Oct. 30 to Nov. 3, 2023, Denver, CO.
- [385] Ofman, L., L. B. Wilson III, S. Boardsen, and P. Mostafavi (2023), Modeling collisionless heliospheric shocks observed in the inner heliosphere, *APS Meeting Abstracts*, PM09.00003, 65th Annual Meeting of the APS Division of Plasma Physics, Oct. 30 to Nov. 3, 2023, Denver, CO.
- [386] Roytershteyn, V., L. B. Wilson III, L.-J. Chen, M. Gedalin, and N. Pogorelov (2023), Short-wavelength instabilities in the shock transition region and their influence of the shock structure and energy partition, *APS Meeting Abstracts*, NM09.00009, 65th Annual Meeting of the APS Division of Plasma Physics, Oct. 30 to Nov. 3, 2023, Denver, CO.
- [387] Wilson III, L. B., C. Salem, and J. Bonnell (2023), The spacecraft potential of *Wind* over time, *APS Meeting Abstracts*, BP11.00065, 65th Annual Meeting of the APS Division of Plasma Physics, Oct. 30 to Nov. 3, 2023, Denver, CO.
- [388] Akhavan-Tafti, M., L. Johnson, A. Szabo, D. Lario, G. Le, L. B. Wilson III, L. K. Jian, D. A. Biesecker, J. A. Slavin, T. I. Pulkkinen, S. T. Lepri, W. Manchester, R. Sood, D. Fontaine, K. E. J. Kilpua, O. Leon, N. Sachdeva, T. Atilaw, M. M. Ala-Lahti, and S. Soni (2023), Space Weather Investigation Frontier (SWIFT): Multi-Spacecraft Mission to Resolve Heliospheric Structures, *AGU Fall Meeting Abstracts*, pp. SH34A-09, Dec. 11-15, 2023, San Francisco, CA.
- [389] Bessho, N., L.-J. Chen, M. Hesse, J. Ng, L. B. Wilson III, and J. E. Stawarz (2023), Electron acceleration in magnetic flux ropes in shock turbulence, *AGU Fall Meeting Abstracts*, pp. SH54B-07, Dec. 11-15, 2023, San Francisco, CA.

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [390] Fordin, S., M. A. Shay, and L. B. Wilson III (2023), A Statistical Study of Circularly-Polarized Waves in the Solar Wind Using Machine Learning, *AGU Fall Meeting Abstracts*, pp. SH43C–3163, Dec. 11–15, 2023, San Francisco, CA.
- [391] Hietala, H., D. Trotta, A. Fedeli, L. B. Wilson III, L. Vuorinen, and J. Coburn (2023), Downstream Jets at Interplanetary Shocks, *AGU Fall Meeting Abstracts*, pp. SH54B–03, Dec. 11–15, 2023, San Francisco, CA.
- [392] Howes, G. G., C. Brown, J. Juno, C. Haggerty, J. TenBarge, D. Caprioli, A. Spitkovsky, and L. B. Wilson III (2023), Understanding the Kinetic Physics of Particle Energization at Quasiperpendicular Collisionless Shocks Using the Field-Particle Correlation Technique, *AGU Fall Meeting Abstracts*, pp. SH21B–08, Dec. 11–15, 2023, San Francisco, CA.
- [393] Jensen, E. A., N. Gopalswamy, S. F. Fung, W. Manchester, T. Nieves-Chinchilla, L. K. Jian, D. Wexler, J. E. Kooi, B. V. Jackson, L. B. Wilson III, A. A. Pevtsov, B. E. Wood, L. Li, M. Deshpande, A. Kumari, M. Shelton, L. Purves, J. Lazio, M. N. Kenny, and S. D. Bale (2023), Scientific Results From Simulating MOST/FETCH Multi-Path Faraday Rotation Observations of a Coronal Mass Ejection, *AGU Fall Meeting Abstracts*, pp. SH32C–03, Dec. 11–15, 2023, San Francisco, CA.
- [394] Roytershteyn, V., L. B. Wilson III, L.-J. Chen, M. Gedalin, and N. Pogorelov (2023), The influence of short-wavelength instabilities on the energy partition at collisionless shocks, *AGU Fall Meeting Abstracts*, pp. SH22A–04, Dec. 11–15, 2023, San Francisco, CA.
- [395] Salem, C. S., J. W. Bonnell, M. P. Pulupa, and L. B. Wilson III (2023), *Wind* Spacecraft Charging: Spacecraft Potential, Photoelectron Current and Their Variability, *AGU Fall Meeting Abstracts*, pp. SH43B–3157, Dec. 11–15, 2023, San Francisco, CA.
- [396] Wilson III, L. B., C. S. Salem, and J. W. Bonnell (2023), The spacecraft potential of *Wind*: A comprehensive database, *AGU Fall Meeting Abstracts*, pp. SH11D–2643, Dec. 11–15, 2023, San Francisco, CA.
- [397] Jensen, E. A., N. Gopalswamy, S. F. Fung, W. Manchester, T. Nieves-Chinchilla, L. B. Wilson III, L. K. Jian, J. E. Kooi, D. Wexler, B. E. Wood, A. A. Pevtsov, B. V. Jackson, L. Li, M. Deshpande, A. Kumari, M. N. Kenny, L. Purves, M. Shelton, J. Lazio, and S. D. Bale (2024), Case Study: Contrasting In-Situ and Remote Sensing Observations with a 3D CME MHD Model, *TESS*, pp. 313–098, the Triennial Earth-Sun Summit (TESS), held in Dallas, TX, Apr. 7–12, 2024.
- [398] Wilson III, L. B., C. S. Salem, and J. W. Bonnell (2024), *Wind* spacecraft floating potential measurements, *TESS*, pp. 311–088, The Triennial Earth-Sun Summit (TESS), held in Dallas, TX, Apr. 7–12, 2024.
- [399] Ofman, L., S. Boardsen, L. B. Wilson III, R. Kieokaew, L. K. Jian, P. Mostafavi, J. Verniero, D. E. Larson, R. Livi, M. McManus, A. Rahmati, M. L. Stevens, and C. Owen (2024), Observations and modeling of high mach number oblique shocks in the

lynn.b.wilsoniii@gmail.com

List of Non-refereed Talks/Presentations

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

inner heliosphere, *COSPAR*, 45th COSPAR Scientific Assembly, held in Busan, South Korea, Jul. 13-21, 2024.

- [400] Pevtsov, A., N. Gopalswamy, S. Christe, S. F. Fung, Q. Gong, J. R. Gruesbeck, L. K. Jian, S. G. Kanekal, C. Kay, T. A. Kucera, J. E. Leake, L. Li, P. Mäkelä, P. Nikulla, N. L. Reginald, A. Shih, S. K. Tadikonda, N. Viall, L. B. Wilson III, S. Yashiro, L. Golub, E. DeLuca, K. Reeves, A. Sterling, A. R. Winebarger, C. DeForest, D. M. Hassler, D. B. Seaton, M. I. Desai, P. S. Mokashi, T. J. W. Lazio, E. A. Jensen, W. B. Manchester, N. Sachdeva, B. Wood, J. E. Kooi, P. Hess, D. B. Wexler, S. D. Bale, S. Krucker, N. Hurlburt, M. DeRosa, S. Gosain, K. Jain, S. Kholikov, G. J. D. Petrie, S. C. Tripathy, J. Zhao, P. H. Scherrer, S. P. Rajaguru, T. Woods, M. Kenney, J. Zhang, C. Scolini, K.-S. Cho, Y.-D. Park, and B. V. Jackson (2024), The MOST Mission Concept, *COSPAR*, 45th COSPAR Scientific Assembly, held in Busan, South Korea, Jul. 13-21, 2024.
- [401] Bessho, N., L.-J. Chen, M. Hesse, J. Ng, L. B. Wilson III, J. E. Stawarz, and H. Madanian (2024), Electron motion and acceleration in magnetic flux ropes produced by magnetic reconnection in quasi-parallel shocks, *APS Meeting Abstracts*, UO05.00007, 66th Annual Meeting of the APS Division of Plasma Physics, Oct. 7–11, 2024, Atlanta, GA.
- [402] Roytershteyn, V., L. B. Wilson III, L.-J. Chen, M. Gedalin, and N. V. Pogorelov (2024), Magnitude of Short-Wavelength Electric Field Fluctuations in Simulations of Collisionless Plasma Shocks, *APS Meeting Abstracts*, UO05.00002, 66th Annual Meeting of the APS Division of Plasma Physics, Oct. 7–11, 2024, Atlanta, GA.
- [403] Wilson III, L. B., K. G. Klein, and J. TenBarge (2024), Electron velocity distribution functions in the solar wind, *APS Meeting Abstracts*, JO05.00005, 66th Annual Meeting of the APS Division of Plasma Physics, Oct. 7–11, 2024, Atlanta, GA.
- [404] Akhavan-Tafti, M., A. Szabo, L. Johnson, J. A. Slavin, T. I. Pulkkinen, K. E. J. Kilpua, S. T. Lepri, D. Fontaine, W. Manchester, L. K. Jian, L. B. Wilson III, R. Sood, O. Leon, N. Sachdeva, M. M. Ala-Lahti, S. Soni, and T. Atilaw (2024), SWIFT: Determining 3D Characteristics and Evolution of Small- to Meso-Scale Solar Wind Structures at Sub-L1, *AGU Fall Meeting Abstracts*, pp. SH11F–2853, Dec. 9–13, 2024, Washington, DC.
- [405] Bessho, N., L.-J. Chen, M. Hesse, J. Ng, L. B. Wilson III, J. E. Stawarz, H. Madanian, and H. Gurram (2024), Electron and ion acceleration and heating due to magnetic reconnection in a quasi-parallel shock, *AGU Fall Meeting Abstracts*, pp. SH31G–2690, Dec. 9–13, 2024, Washington, DC.
- [406] Cattell, C. A., S. Elliott, E. Hanson, L. Kathmann, L. Macgowan, A. Skogsberg, D. Tereshko, and L. B. Wilson III (2024), The Effect of Intermediate Frequency Waves on the Radial Evolution of Coronal Mass Ejections from ~ 1 AU to ~ 5 AU: Juno, Wind, STEREO and ARTEMIS, *AGU Fall Meeting Abstracts*, pp. SH53C–2975, Dec. 9–13, 2024, Washington, DC.
- [407] Fordin, S., M. A. Shay, and L. B. Wilson III (2024), Properties of Ion-Scale Circularly-Polarized Waves in the Solar Wind, *AGU Fall Meeting Abstracts*, pp. SH31D–2632, Dec. 9–13, 2024, Washington, DC.

lynn.b.wilsoniii@gmail.com

List of Non-refereed Talks/Presentations

List of Non-refereed Talks/Presentations

Lynn B. Wilson III

- [408] Goodrich, K., J. Riggs, L. B. Wilson III, and S. J. Schwartz (2024), Evidence of the Electron Cyclotron Drift Instability in an Oblique Shock Crossing, *AGU Fall Meeting Abstracts*, pp. SH23A–2928, Dec. 9–13, 2024, Washington, DC.
- [409] Hanson, E., C. A. Cattell, K. Goetz, C. Guggemos, A. Jung, T. Mahaffey, J. Redepening, A. Skogsberg, P. Bibeau, S. D. Bale, J. S. Halekas, J. C. Kasper, D. E. Larson, R. Livi, D. M. Malaspina, M. P. Pulupa, O. Romeo, J. Verniero, P. Whittlesey, and L. B. Wilson III (2024), Comparison of Waves Measured by Parker Solar Probe During Interplanetary Shocks at 15 Rs and 49Rs, *AGU Fall Meeting Abstracts*, pp. SH34A–02, Dec. 9–13, 2024, Washington, DC.
- [410] Jensen, E. A., N. Gopalswamy, S. F. Fung, L. Li, A. Kumari, M. Deshpande, M. Shelton, A. Lara, J. E. Kooi, W. Manchester, T. J. W. Lazio, L. B. Wilson III, L. K. Jian, T. Nieves-Chinchilla, B. V. Jackson, D. Wexler, M. N. Kenny, S. D. Bale, A. A. Pevtsov, and B. E. Wood (2024), Determining The SNR Requirements For FETCH, A Novel Faraday Rotation Instrument, *AGU Fall Meeting Abstracts*, pp. SH51C–2906, Dec. 9–13, 2024, Washington, DC.
- [411] Roytershteyn, V., L. B. Wilson III, L.-J. Chen, M. Gedalin, and N. V. Pogorelov (2024), Short-Wavelength Electric Field Fluctuations in Simulations of Collisionless Plasma Shocks, *AGU Fall Meeting Abstracts*, pp. SH34A–03, Dec. 9–13, 2024, Washington, DC.
- [412] Sterken, V. J., L. R. Baalman, S. Hunziker, A. Péronne, J. W. Kirchner, K.-H. Glassmeier, D. M. Malaspina, L. B. Wilson III, C. Strähl, and S. Chadda (2024), A solar rotation signature in cosmic dust data taken by the Wind spacecraft, *AGU Fall Meeting Abstracts*, pp. SH23D–2938, Dec. 9–13, 2024, Washington, DC.
- [413] Verniero, J. L., K. W. Paulson, A. Szabo, O. V. Agapitov, R. Alexander, S. T. Badman, S. D. Bale, F. Carcaboso, C. A. Cattell, B. D. G. Chandran, L. Colombari, D. da Silva, L. K. S. Daldorff, T. Ervin, C. A. Gonzalez, J. S. Halekas, T. Niembro Hernandez, J. Huang, P. A. Isenberg, J. C. Kasper, N. D. D. Kee, K. G. Klein, D. E. Larson, R. Livi, D. M. Malaspina, M. M. Martinović, N. Mathews, A. Mousavi, T. Phan, A. Rahmati, B. M. Randol, Y. Rivera, O. Romeo, V. Roytershteyn, K. Sauer, M. L. Stevens, M. C. M. Velli, D. Verscharen, P. Whittlesey, and L. B. Wilson III (2024), Kinetic complexities of the near-Sun heliospheric current sheet observed by Parker Solar Probe, *AGU Fall Meeting Abstracts*, pp. SH33C–2751, Dec. 9–13, 2024, Washington, DC.
- [414] Wilson III, L. B., K. G. Klein, and J. M. TenBarge (2024), Electron velocity distribution functions in the solar wind, *AGU Fall Meeting Abstracts*, pp. SH21E–2874, Dec. 9–13, 2024, Washington, DC.

List of Invited Talks/Presentations

Lynn B. Wilson III

- [415] 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.
- [416] 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.
- [417] 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.
- [418] 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.
- [419] 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.
- [420] 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.
- [421] 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.
- [422] 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.
- [423] 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.
- [424] 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

List of Invited Talks/Presentations

Lynn B. Wilson III

Shock (invited) (2013). 8th European Workshop on Collisionless Shocks, Paris, France, June 5th, 2013.

- [425] 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.
- [426] 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.
- [427] Turner, D. L., Angelopoulos, V., Omid, 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.
- [428] Turner, D. L., Angelopoulos, V., Wilson III, L. B., Hietala, H., Omid, 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.
- [429] 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.
- [430] 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.
- [431] 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.
- [432] 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.
- [433] 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.

List of Invited Talks/Presentations

Lynn B. Wilson III

- [434] 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.
- [435] 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.
- [436] 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.
- [437] 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.
- [438] 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. Oct. 12-15, 2015, Venice, Italy.
- [439] 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.
- [440] 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.
- [441] 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.
- [442] 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.
- [443] Wilson III, L. B. Gradients as Antennas: A General Wave Source. *Van Allen Probes SWG Meeting* (2016). URL 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

- [444] 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.
- [445] 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. Nov. 7-12, 2016, Palm Springs, CA.
- [446] 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.
- [447] 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.
- [448] 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.
- [449] 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.
- [450] 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.
- [451] 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.
- [452] Wilson III, L. B. (2017), Relativistic electrons generated locally within transient ion foreshock phenomena, *University of Maryland Plasma Physics Seminar*, Sep. 27, 2017, University of Maryland Plasma Physics Seminar.
- [453] Chen, L.-J., S. Wang, L. B. Wilson III, S. J. Schwartz, N. Bessho, A. Le, et al. (2017), Plasma heating across quasi-perpendicular shocks observed by the MMS mission, in *APS Meeting Abstracts*, p. UM9.00004, Oct. 23-27, 2017, Milwaukee, WI.

List of Invited Talks/Presentations

Lynn B. Wilson III

- [454] Wilson III, L. B. (2017), Electron acceleration by whistler waves at collisionless shocks, *2017 JSI Workshop*, Nov. 6–9, 2017, Cosmic Accelerators: Understanding Nature’s High-energy Particles and Radiation.
- [455] 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), *The Magnetosphere New Tools, New Thinking, New Results*, Nov. 12–17, 2017, Puerto Varas, Chile.
- [456] Liu, T. Z., V. Angelopoulos, H. Hietala, S. Lu, and L. B. Wilson III (2017), Understanding of Particle Acceleration by Foreshock Transients (invited), *AGU Fall Meeting Abstracts*, pp. U22B–06, Dec. 11–15, 2017, New Orleans, LA.
- [457] Wilson III, L. B., D. G. Sibeck, D. L. Turner, A. Osmane, D. Caprioli, V. Angelopoulos, and T. Z. Liu (2017), Relativistic electrons generated locally within transient ion foreshock phenomena (invited), *AGU Fall Meeting Abstracts*, pp. SM24A–01, Dec. 11–15, 2017, New Orleans, LA.
- [458] Liu, T. Z., S. Lu, V. Angelopoulos, H. Hietala, and L. B. Wilson III (2018), Fermi Acceleration of Electrons inside Foreshock Transient Cores (invited), *Fundamental Physical Processes in Solar-Terrestrial Research and Their Relevance to Planetary Physics*, Jan. 7–13, 2018, Kona, Hawaii.
- [459] Wilson III, L. B., A. Koval, A. Szabo, M. L. Stevens, J. C. Kasper, C. A. Cattell, and V. V. Krasnoselskikh (2018), The structure of low Mach number, low beta, quasi-perpendicular shocks (invited), *Fundamental Physical Processes in Solar-Terrestrial Research and Their Relevance to Planetary Physics*, Jan. 7–13, 2018, Kona, Hawaii.
- [460] Wilson III, L. B. (2018), The Structure of Low Mach Number, Low Beta, Quasi-perpendicular Collisionless Shocks (invited), *LANL Plasma Physics Seminar*, Seminar for the Center of Space and Earth Science in Los Alamos National Laboratory, Feb. 20, 2018.
- [461] Wilson III, L. B. (2018), The Physics of Collisionless Shock Waves (invited), *Swarthmore College Physics Colloquium*, Colloquium for the Department of Physics at Swarthmore College, Apr. 13, 2018.
- [462] Turner, D. L., L. B. Wilson III, S. J. Schwartz, T. Z. Liu, A. Osmane, J. F. Fennell, J. B. Blake, T. Leonard, A. N. Jaynes, I. J. Cohen, B. Mauk, R. J. Strangeway, J. Broll, S. A. Fuselier, and J. L. Burch (2018), Evidence of autogenous first-order Fermi acceleration of energetic ions upstream of Earth’s bow shock (solicited), in *EGU General Assembly Conference Abstracts*, *EGU General Assembly Conference Abstracts*, vol. 20, p. 2857, April 8–13, 2018, Vienna, Austria.
- [463] Wilson III, L. B., A. Koval, A. Szabo, M. L. Stevens, J. C. Kasper, C. A. Cattell, and V. V. Krasnoselskikh (2018), The Structure of Low Mach Number, Low Beta, Quasi-perpendicular Collisionless Shocks (invited), *AOGS-AGU (WPGM) Joint Assembly*, pp. ST06–A002, June 3–8, 2018, Honolulu, Hawaii.

lynn.b.wilsoniii@gmail.com

List of Invited Talks/Presentations

List of Invited Talks/Presentations

Lynn B. Wilson III

- [464] Wilson III, L. B., A. Koval, A. Szabo, M. L. Stevens, J. C. Kasper, C. A. Cattell, and V. V. Krasnoselskikh (2018), The Structure of Low Mach Number, Low Beta, Quasi-perpendicular Collisionless Shocks (invited), *COSPAR*, **42**, July 14–22, 2018, Pasadena, California.
- [465] Wilson III, L. B. (2019), Electron energy partition across interplanetary shocks near 1 AU (invited), Research Seminar, Apr. 15, 2019, Princeton Plasma Physics Laboratory, Princeton University.
- [466] Wilson III, L. B. (2019), Electron energy partition across interplanetary shocks near 1 AU (invited), *The Plasma Physics of the Magnetosphere*, on Jun. 2–7, 2019, Pollenzo, Italy.
- [467] Wilson III, L. B. (2019), Electron energy partition across interplanetary shocks near 1 AU (invited), *Ion Composition in the Sun-Earth System (ICSES): Measurements/Implications/Theory*, on Jul. 28 to Aug. 3, 2019, Durango, CO.
- [468] Wilson III, L. B. (2019), Nonthermal electron velocity distributions at interplanetary shocks near 1 AU (invited), *10th Korean Astrophysics Workshop (KAW10): Astrophysics of High-Beta Plasma in the ICM*, on Jul. 1–4, 2019, Busan, South Korea.
- [469] Bessho, N., L.-J. Chen, S. Wang, L. B. Wilson III, and M. Hesse (2019), Kinetic Physics of Magnetic Reconnection in Turbulence in the Earth’s Bow Shock (invited), *AOGS-AGU (WPGM) Joint Assembly*, pp. ST09–A007, July 28–Aug. 2, 2019, Singapore.
- [470] Bessho, N., L.-J. Chen, S. Wang, M. Hesse, and L. B. Wilson III (2019), Two-dimensional particle-in-cell simulations of magnetic reconnection and kinetic physics in the Earth’s quasi-parallel bow shock (invited), *AGU Fall Meeting Abstracts*, pp. SH21A–03, Dec. 9–13, 2019, San Francisco, CA.
- [471] Turner, D. L., T. Z. Liu, and L. B. Wilson III (2019), Foreshock Transient Phenomena Observed by the Magnetospheric Multiscale (MMS) Mission (Invited), *AGU Fall Meeting Abstracts*, pp. SM53B–02, Dec. 9–13, 2019, San Francisco, CA.
- [472] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, et al. (2019), Magnetic reconnection observations in the bow shock transition region (invited), *AGU Fall Meeting Abstracts*, pp. SH21A–01, Dec. 9–13, 2019, San Francisco, CA.
- [473] Collinson, G., L. B. Wilson III, N. Omidi, D. G. Sibeck, J. Espley, C. Fowler, D. Mitchell, J. Grebowsky, C. Mazelle, S. Ruhunusiri, J. Halekas, R. Frahm, T. Zhang, Y. Futaana, and B. Jakosky (2020), Solar Wind induced waves in the skies of Mars: Ionospheric compression, energization, and escape resulting from the impact of ultra-low frequency magnetosonic waves generated upstream of the Martian bow shock (invited), in *EGU General Assembly Conference Abstracts*, vol. 22, p. 1966, May 3–8, 2020, Vienna, Austria.
- [474] Wilson III, L. B. (2020), The Solar Wind, *Magnetosphere Online Seminar Series*, on May 4, 2020.

lynn.b.wilsoniii@gmail.com

List of Invited Talks/Presentations

List of Invited Talks/Presentations

Lynn B. Wilson III

- [475] Wilson III, L. B. (2020), Particle Energization at Collisionless Shock Waves (invited), *Astrophysical and Planetary Sciences Colloquium*, colloquium for the Department of Astrophysical and Planetary Sciences at University of Colorado Boulder, Oct. 5, 2020.
- [476] Wilson III, L. B. (2020), The discrepancy between simulation and observation of electric fields in collisionless shocks, *MMS FALL 2020 Science Working Team Meeting*, on Oct. 6–8, 2020, Virtual Meeting.
- [477] Wilson III, L. B. (2020), Energy partition at interplanetary shocks, *Solar Orbiter Working Group: Shocks and Particle Energisation*, on Oct. 26, 2020, Virtual Meeting.
- [478] Wilson III, L. B. (2020), The nonequilibrium solar wind electrons: Why care?, *Heliophysics Director's Seminar*, Nov. 20, 2020, Goddard Space Flight Center, Presentation for the Sciences and Exploration Directorate Director.
- [479] Madanian, H., M. I. Desai, J. L. Burch, S. A. Fuselier, L. B. Wilson III, O. Le Contel, S. J. Schwartz, D. L. Turner, N. Omid, K. Ogasawara, R. E. Ergun, N. Ahmadi, C. Russell, D. J. Gershman, and P.-A. Lindqvist (2020), The Dynamics of High Mach Number Quasi-Perpendicular Shocks, *AGU Fall Meeting Abstracts*, pp. SH047–02, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [480] Wang, S., L.-J. Chen, N. Bessho, M. Hesse, L. B. Wilson III, R. E. Denton, J. Ng, B. L. Giles, R. B. Torbert, and J. L. Burch (2020), Magnetic reconnection observed at Earth's bow shock (Invited), *AGU Fall Meeting Abstracts*, pp. SM038–01, Dec. 7–11, 2020, San Francisco, CA, Virtual.
- [481] Wilson III, L. B. (2021), Particle Energization at Collisionless Shock Waves (invited), *Space Plasma Physics Seminar*, Space Plasma Physics Seminar for the Department of Physics and Astronomy at Rice University, Feb. 16, 2021.
- [482] Chen, L.-J., N. Bessho, S. Wang, M. Hesse, L. B. Wilson III, and J. Ng (2021), Magnetic reconnection and kinetic waves in the Earth's quasi-parallel bow shock, *Features in Plasma Physics Webinar*, on February 26, 2021.
- [483] Wilson III, L. B. (2021), Particle Energization at Collisionless Shock Waves (invited), *Monthly Meeting of the National Capital Astronomers*, Presentation for the Monthly Meeting of the National Capital Astronomers (virtual) on Oct. 9, 2021.
- [484] Wilson III, L. B., A. L. Brosius, D. J. Gershman, S. J. Schwartz, H. Madanian, I. J. Cohen, D. L. Turner, and K. Goodrich (2021), MMS Observations of nonlinear whistler precursor particle acceleration, in *APS Meeting Abstracts*, p. CM10.00001, 63rd Annual Meeting of the APS Division of Plasma Physics, Nov. 8–12, 2021.
- [485] Wilson III, L. B. (2022), The Sun Radio Interferometer Space Experiment (SunRISE) Mission, *Heliophysics Director's Seminar*, Mar. 16, 2022, Goddard Space Flight Center, Presentation for the Sciences and Exploration Directorate Director.
- [486] Wilson III, L. B. (2022), Comparative collisionless shocks beyond Earth, *MMS Community Workshop*, May 9–13, 2022, Daytona Beach, FL.

lynn.b.wilsoniii@gmail.com

List of Invited Talks/Presentations

List of Invited Talks/Presentations

Lynn B. Wilson III

- [487] Wilson III, L. B. (2022), Suprathermal particles and collisionless shocks, *2022 SHINE Conference*, held June 27 to July 1, 2022, Honolulu, Hawaii.
- [488] Wilson III, L. B. (2022), Particle Energization at Collisionless Shock Waves and Particle Transport in the Interplanetary Medium, *6th ICM Theory and Computation Workshop*, held August 15–19, 2022, Copenhagen, Denmark.
- [489] Wilson III, L. B. (2023), Nonequilibrium solar wind particle distributions: Why care?, *KU Leuven Physics Colloquium*, Colloquium for the Centre for Mathematical Plasma Astrophysics, at the Department of Mathematics of the KU Leuven, May 8–12, 2023 in Leuven, Belgium.
- [490] Wilson III, L. B. (2023), The Structure of Collisionless Shocks, *ASTRONUM 2023*, ASTRONUM 2023 Workshop, held in Pasadena, CA, June 26–30, 2023.
- [491] Wilson III, L. B. (2023), Nonlinear waves on the whistler mode branch, *University of Birmingham Colloquium*, seminar for the Department of Electronic, Electrical and Systems Engineering at the University of Birmingham, Sep. 25–29, 2023, Birmingham, UK.
- [492] Wilson III, L. B. (2023), Spacecraft floating potential measurements for the *Wind* spacecraft, Parker Solar Probe *Working Group: QTN/Electron*, on Nov. 28, 2023.
- [493] Wilson III, L. B. (2024), Electron velocity distribution functions in the solar wind, *21st Annual International Astrophysics Conference*, 21st Annual International Astrophysics Conference, held in Turin, Italy, Mar. 25–29, 2024.
- [494] Wilson III, L. B. (2024), Electron velocity distribution functions in the solar wind, *4th URSI AT-RASC*, The International Union of Radio Science (URSI) Atlantic Radio Science Meeting (AT-RASC) 2024, held in Gran Canaria, Spain, May 19–24, 2024.
- [495] Wilson III, L. B. (2024), Nonequilibrium electron velocity distribution functions in the solar wind, *Oxford Plasma Theory Group Seminar*, seminar for the Oxford Plasma Theory Group at the University of Oxford, Sep. 23–27, 2024, Oxford, UK.
- [496] Wilson III, L. B. (2024), Nonequilibrium electron velocity distribution functions in the solar wind, *Space Physics Seminar*, seminar for the Laboratory of Physics and Chemistry of the Environment and Space (LPC2E) at Orleans University, Orleans, France on Wednesday Dec. 4, 2024.
- [497] Hietala, H., D. Trotta, A. Fedeli, L. B. Wilson III, L. Vuorinen, A. LaMoury, and J. T. Coburn (2024), Downstream Jets at Interplanetary and Planetary Shocks (Invited), *AGU Fall Meeting Abstracts*, pp. SH34A–01, Dec. 9–13, 2024, Washington, DC.
- [498] Shi, X., A. Artemyev, V. Angelopoulos, T. Z. Liu, and L. B. Wilson III (2024), Compound electron acceleration at planetary foreshocks (Invited), *AGU Fall Meeting Abstracts*, pp. SH34A–04, Dec. 9–13, 2024, Washington, DC.

List of Refereed Publications

Lynn B. Wilson III

- [499] Wilson III, L. B. (2025), Nonequilibrium electron velocity distribution functions in the solar wind, *London Space Plasma Meeting*, Keynote Lecture for the London Space Plasma Meeting (LSPM) at Queen Mary University of London, Apr. 2, 2025, London, UK.
- [500] Wilson III, L. B. (2025), Nonequilibrium electron velocity distribution functions in the solar wind, *22nd Annual International Astrophysics Conference*, 22nd Annual International Astrophysics Conference, held in Santiago de Compostela, Spain, Apr. 7–11, 2025.