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- [253] 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.
- [254] 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.
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- [258] 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.
- [259] 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.
- [260] 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.
- [261] 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

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- [263] 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.
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- [274] 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.
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- [281] 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.

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- [283] 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.
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- [293] Wilson III, L. B. (2020), Electron energy partition across interplanetary shocks near 1 AU, *Parker Solar Probe Theory Group Telecon*, on Apr. 23, 2020.
- [294] Wilson III, L. B. (2020), Energy partition across interplanetary shocks, *MMS FPI Team Telecon*, on Jul. 9, 2020.
- [295] Wilson III, L. B. (2020), Electron energy partition at interplanetary shocks, *2020 Virtual GEM Conference*, online Jul. 21–23, 2020.
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- [297] 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.
- [298] 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.
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- [300] 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.
- [301] 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.
- [302] 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.
- [303] 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.
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- [306] 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.
- [307] 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.
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- [310] 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.
- [311] 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.
- [312] 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.
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- [316] 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.
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- [319] 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.
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- 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.
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- [330] Wilson III, L. B. (2021), Particle acceleration by nonlinear, magnetosonic-whistler precursors, *MMS Community Workshop*, Oct. 19–21, 2021, Waterville Valley, NH.
- [331] 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.

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- [349] 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.
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- [355] 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.
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Faraday Rotation, the FETCH instrument on the MOST mission, *AGU Fall Meeting Abstracts*, pp. SH34B–04, Dec. 12–16, 2022, Chicago, IL, Hybrid.

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- [375] 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

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- [379] 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.
- [380] 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.
- [381] 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.
- [382] 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.
- [383] 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.

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- [384] 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.
- [385] 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.
- [386] 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.
- [387] 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.
- [388] 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.
- [389] 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.
- [390] 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.
- [391] 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.
- [392] 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 inner heliosphere, *COSPAR*, 45th COSPAR Scientific Assembly, held in Busan, South Korea, Jul. 13-21, 2024.
- [393] 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.

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- [394] 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.
- [395] 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.
- [396] 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.
- [397] 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.
- [398] 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.
- [399] 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.
- [400] 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.
- [401] 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.
- [402] 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.
- [403] Wilson III, L. B., Sibeck, D. G., Breneman, A. W., Le Contel, O., Cully, C., Turner, D. L. & Angelopoulos, V. Quantified Energy Dissipation Rates in the Terrestrial Bow

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

- [404] 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.
- [405] 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.
- [406] 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.
- [407] 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.
- [408] 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.
- [409] 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.
- [410] 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.
- [411] 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.
- [412] Wilson III, L. B. Quantified Energy Dissipation Rates in the Terrestrial Bow Shock. *APL Space Physics Seminar* (2014). URL <http://www.jhuapl.edu>. Nov. 17, 2014, Applied Physics Laboratory.

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- [413] 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.
- [414] 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.
- [415] 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.
- [416] 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.
- [417] 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.
- [418] 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.
- [419] 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.
- [420] 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.
- [421] 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.
- [422] 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.

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- [423] 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.
- [424] 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.
- [425] 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.
- [426] 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.
- [427] 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.
- [428] 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.
- [429] 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.
- [430] 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.
- [431] 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.
- [432] 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.

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- [433] 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.
- [434] 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.
- [435] 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.
- [436] 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.
- [437] 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.
- [438] 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.
- [439] 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.
- [440] 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.
- [441] 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.
- [442] 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.

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- [443] 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.
- [444] 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.
- [445] 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.
- [446] 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.
- [447] 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.
- [448] 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.
- [449] 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.
- [450] 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.
- [451] 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.
- [452] 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.
- [453] Wilson III, L. B. (2020), The Solar Wind, *Magnetosphere Online Seminar Series*, on May 4, 2020.

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- [454] 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.
- [455] 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.
- [456] Wilson III, L. B. (2020), Energy partition at interplanetary shocks, *Solar Orbiter Working Group: Shocks and Particle Energisation*, on Oct. 26, 2020, Virtual Meeting.
- [457] 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.
- [458] 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.
- [459] 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.
- [460] 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.
- [461] 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.
- [462] 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.
- [463] 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.
- [464] 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.
- [465] Wilson III, L. B. (2022), Comparative collisionless shocks beyond Earth, *MMS Community Workshop*, May 9–13, 2022, Daytona Beach, FL.

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List of Invited Talks/Presentations

List of Refereed Publications

Lynn B. Wilson III

- [466] Wilson III, L. B. (2022), Suprathermal particles and collisionless shocks, *2022 SHINE Conference*, held June 27 to July 1, 2022, Honolulu, Hawaii.
- [467] 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.
- [468] 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.
- [469] Wilson III, L. B. (2023), The Structure of Collisionless Shocks, *ASTRONUM 2023*, ASTRONUM 2023 Workshop, held in Pasadena, CA, June 26–30, 2023.
- [470] 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.
- [471] Wilson III, L. B. (2023), Spacecraft floating potential measurements for the *Wind* spacecraft, Parker Solar Probe *Working Group: QTN/Electron*, on Nov. 28, 2023.
- [472] 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.
- [473] 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.