Lynn B. Wilson III

List of Publications by Citations

85 papers	2,004 citations	29 h-index	41 g-index
99 ext. papers	2,406 ext. citations	4.9 avg, IF	4.88 L-index

#	Paper	IF	Citations
85	The properties of large amplitude whistler mode waves in the magnetosphere: Propagation and relationship with geomagnetic activity. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	72
84	Electrostatic Solitary Waves in the Solar Wind: Evidence for Instability at Solar Wind Current Sheets. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 591-599	2.6	70
83	Observations of electromagnetic whistler precursors at supercritical interplanetary shocks. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	69
82	Low Frequency Waves at and Upstream of Collisionless Shocks. *Geophysical Monograph Series*, **2016** , 269-291	1.1	68
81	Large-amplitude electrostatic waves observed at a supercritical interplanetary shock. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		66
80	Low-frequency whistler waves and shocklets observed at quasi-perpendicular interplanetary shocks. *Journal of Geophysical Research*, **2009**, 114,		63
79	Waves in interplanetary shocks: a wind/WAVES study. *Physical Review Letters*, **2007**, 99, 041101	7.4	62
78	Quantified energy dissipation rates in the terrestrial bow shock: 2. Waves and dissipation. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 6475-6495	2.6	59
77	Electromagnetic waves and electron anisotropies downstream of supercritical interplanetary shocks. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 5-16	2.6	56
76	THEMIS observations of the magnetopause electron diffusion region: Large amplitude waves and heated electrons. *Geophysical Research Letters*, **2013**, 40, 2884-2890	4.9	56
75	Observation of relativistic electron microbursts in conjunction with intense radiation belt whistler-mode waves. *Geophysical Research Letters*, **2011**, 38, n/a-n/a	4.9	56
74	Electron trapping and charge transport by large amplitude whistlers. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	56
73	The Statistical Properties of Solar Wind Temperature Parameters Near 1 au. *Astrophysical Journal, Supplement Series*, **2018**, 236, 41	8	54
72	Interplanetary and interstellar dust observed by the Wind/WAVES electric field instrument. *Geophysical Research Letters*, **2014**, 41, 266-272	4.9	51
71	Prompt acceleration of magnetospheric electrons to ultrarelativistic energies by the 17 March 2015 interplanetary shock. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 7622-7635	2.6	49
70	Generation of Kappa Distributions in Solar Wind at 1 au. *Astrophysical Journal*, **2018**, 853, 142	4.7	47
69	Large amplitude whistlers in the magnetosphere observed with Wind-Waves. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		45

68	Quantified energy dissipation rates in the terrestrial bow shock: 1. Analysis techniques and methodology. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 6455-6474	2.6	43
67	A PROTON-CYCLOTRON WAVE STORM GENERATED BY UNSTABLE PROTON DISTRIBUTION FUNCTIONS IN THE SOLAR WIND. *Astrophysical Journal*, **2016**, 819, 6	4.7	41
66	Shocklets, SLAMS, and field-aligned ion beams in the terrestrial foreshock. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 957-966	2.6	41
65	A statistical analysis of properties of small transients in the solar wind 2007–2009: STEREO and Wind observations. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 689-708	2.6	40
64	MMS Observations of Electrostatic Waves in an Oblique Shock Crossing. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 9430-9442	2.6	40
63	Electron Energy Partition across Interplanetary Shocks. I. Methodology and Data Product. *Astrophysical Journal, Supplement Series*, **2019**, 243,	8	39
62	Revisiting the structure of low-Mach number, low-beta, quasi-perpendicular shocks. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 9115-9133	2.6	37
61	Relativistic Electrons Produced by Foreshock Disturbances Observed Upstream of Earth's Bow Shock. *Physical Review Letters*, **2016**, 117, 215101	7.4	35
60	Observations of large-amplitude, narrowband whistlers at stream interaction regions. *Journal of Geophysical Research*, **2010**, 115, n/a-n/a		35
59	Ion distributions in the Earth's foreshock: Hybrid-Vlasov simulation and THEMIS observations. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 3684-3701	2.6	33
58	Autogenous and efficient acceleration of energetic ions upstream of Earth's bow shock. *Nature*, **2018**, 561, 206-210	50.4	32
57	STEREO and Wind observations of intense cyclotron harmonic waves at the Earth's bow shock and inside the magnetosheath. *Journal of Geophysical Research: Space Physics*, **2013**, 118, 7654-7664	2.6	30
56	Electron Scattering by High-frequency Whistler Waves at Earth's Bow Shock. *Astrophysical Journal Letters*, **2017**, 842, L11	7.9	29
55	Kinetic theory and fast wind observations of the electron strahl. *Monthly Notices of the Royal Astronomical Society*, **2018**, 474, 115-127	4.3	29
54	Electron Bulk Acceleration and Thermalization at Earth's Quasiperpendicular Bow Shock. *Physical Review Letters*, **2018**, 120, 225101	7.4	29
53	Observational Evidence of Magnetic Reconnection in the Terrestrial Bow Shock Transition Region. *Geophysical Research Letters*, **2019**, 46, 562-570	4.9	28
52	Statistical study of particle acceleration in the core of foreshock transients. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 7197-7208	2.6	28
51	Electron Energy Partition across Interplanetary Shocks. II. Statistics. *Astrophysical Journal, Supplement Series*, **2019**, 245, 24	8	26

50	Microscopic, Multipoint Characterization of Foreshock Bubbles With Magnetospheric Multiscale (MMS). *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027707	2.6	25
49	Magnetic Reconnection in a Quasi-Parallel Shock: Two-Dimensional Local Particle-in-Cell Simulation. *Geophysical Research Letters*, **2019**, 46, 9352-9361	4.9	23
48	Fermi acceleration of electrons inside foreshock transient cores. *Journal of Geophysical Research: Space Physics*, **2017**, 122, 9248-9263	2.6	23
47	A database of interplanetary and interstellar dust detected by the Wind spacecraft. *Journal of Geophysical Research: Space Physics*, **2016**, 121, 9369-9377	2.6	19
46	ON THE CONNECTION BETWEEN MICROBURSTS AND NONLINEAR ELECTRONIC STRUCTURES IN PLANETARY RADIATION BELTS. *Astrophysical Journal*, **2016**, 816, 51	4.7	17
45	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. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 7241-7256	2.6	17
44	Large-amplitude transmitter-associated and lightning-associated whistler waves in the Earth's inner plasmasphere at L Journal of Geophysical Research, **2011**, 116, n/a-n/a		16
43	Evolution of the Suprathermal Proton Population at Interplanetary Shocks. *Astronomical Journal*, **2019**, 158, 12	4.9	15
42	Short large-amplitude magnetic structures (SLAMS) at Venus. *Journal of Geophysical Research*, **2012** , 117, n/a-n/a		14
41	Lower-Hybrid Drift Waves Driving Electron Nongyrotropic Heating and Vortical Flows in a Magnetic Reconnection Layer. *Physical Review Letters*, **2020**, 125, 025103	7.4	13
40	Impulsively Reflected Ions: A Plausible Mechanism for Ion Acoustic Wave Growth in Collisionless Shocks. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 1855-1865	2.6	12
39	Electron Energy Partition across Interplanetary Shocks. III. Analysis. *Astrophysical Journal*, **2020**, 893, 22	4.7	12
38	A Quarter Century of Wind Spacecraft Discoveries. *Reviews of Geophysics*, **2021**, 59, e2020RG000714	23.1	11
37	Electron Scattering by Low-frequency Whistler Waves at Earth□ Bow Shock. *Astrophysical Journal*, **2019**, 886, 53	4.7	11
36	The Dynamics of a High Mach Number Quasi-perpendicular Shock: MMS Observations. *Astrophysical Journal*, **2021**, 908, 40	4.7	11
35	THEMIS observations of electrostatic ion cyclotron waves and associated ion heating near the Earth's dayside magnetopause. *Journal of Geophysical Research: Space Physics*, **2015**, 120, 3380-3392	2.6	10
34	A vortical dawn flank boundary layer for near-radial IMF: Wind observations on 24 October 2001. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 4572-4590	2.6	10
33	Statistical Study of the Properties of Magnetosheath Lion Roars. *Journal of Geophysical Research: Space Physics*, **2018**, 123, 5435-5451	2.6	10

32	Laboratory Observations of Ultra-Low Frequency Analogue Waves Driven by the Right-Hand Resonant Ion Beam Instability. *Astrophysical Journal Letters*, **2020**, 891,	7.9	9
31	Magnetic reconnection and kinetic waves generated in the Earth's quasi-parallel bow shock. *Physics of Plasmas*, **2020**, 27, 092901	2.1	9
30	Parallel electron heating in the magnetospheric inflow region. *Geophysical Research Letters*, **2017**, 44, 4384-4392	4.9	8
29	Structure of a reconnection layer poleward of the cusp: Extreme density asymmetry and a guide field. *Journal of Geophysical Research: Space Physics*, **2014**, 119, 7343-7362	2.6	8
28	The Discrepancy Between Simulation and Observation of Electric Fields in Collisionless Shocks. *Frontiers in Astronomy and Space Sciences*, **2021**, 7,	3.8	7
27	Nonstationary Quasiperpendicular Shock and Ion Reflection at Mars. *Geophysical Research Letters*, **2020**, 47, e2020GL088309	4.9	6
26	Explaining polarization reversals in STEREO wave data. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		6
25	Flat Proton Spectra in Large Solar Energetic Particle Events. *Journal of Physics: Conference Series*, **2018**, 1100, 012014	0.3	6
24	Ion-scale Current Structures in Short Large-amplitude Magnetic Structures. *Astrophysical Journal*, **2020**, 898, 121	4.7	5
23	Comparative Analysis of the 2020 November 29 Solar Energetic Particle Event Observed by Parker Solar Probe. *Astrophysical Journal*, **2021**, 920, 123	4.7	5
22	Kinetic Properties of an Interplanetary Shock Propagating inside a Coronal Mass Ejection. *Astrophysical Journal Letters*, **2018**, 859, L4	7.9	5
21	Observations of a high-latitude stable electron auroral emission at ~16 MLT during a large substorm. *Journal of Geophysical Research*, **2011**, 116, n/a-n/a		4
20	The Rapid Variability of Wave Electric Fields Within and Near Quasiperpendicular Interplanetary Shock Ramps: STEREO Observations. *Astrophysical Journal*, **2020**, 904, 174	4.7	4
19	A field–particle correlation analysis of a perpendicular magnetized collisionless shock. *Journal of Plasma Physics*, **2021**, 87,	2.7	4
18	Large-Amplitude Whistler Waves and Electron Acceleration in the Earth's Radiation Belts: A Review of Stereo and Wind Observations. *Geophysical Monograph Series*, **2013**, 41-52	1.1	3
17	Subcritical Growth of Electron Phase-space Holes in Planetary Radiation Belts. *Astrophysical Journal* , **2017**, 846, 83	4.7	3
16	Direct Multipoint Observations Capturing the Reformation of a Supercritical Fast Magnetosonic Shock. *Astrophysical Journal Letters*, **2021**, 911, L31	7.9	3
15	Electron Bernstein waves and narrowband plasma waves near the electron cyclotron frequency in the near-Sun solar wind. *Astronomy and Astrophysics*, **2021**, 650, A97	5.1	3

14	An Encounter With the Ion and Electron Diffusion Regions at a Flapping and Twisted Tail Current Sheet. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028903	2.6	3
13	Magnetospheric Multiscale Observations of Earth's Oblique Bow Shock Reformation by Foreshock Ultralow-Frequency Waves. *Geophysical Research Letters*, **2021**, 48, e2020GL091184	4.9	3
12	Strong reconnection electric fields in shock-driven turbulence. *Physics of Plasmas*, **2022**, 29, 042304	2.1	3
11	Understanding the Role of □Particles in Oblique Heliospheric Shock Oscillations. *Journal of Geophysical Research: Space Physics*, **2019**, 124, 2393	2.6	2
10	Depleted Plasma Densities in the Ionosphere of Venus Near Solar Minimum From Parker Solar Probe Observations of Upper Hybrid Resonance Emission. *Geophysical Research Letters*, **2021**, 48, e2020GL092243	4.9	2
9	ARTEMIS Observations of Plasma Waves in Laminar and Perturbed Interplanetary Shocks. *Astrophysical Journal*, **2021**, 913, 144	4.7	2
8	MMS Observations of Energized He+ Pickup Ions at Quasiperpendicular Shocks. *Astrophysical Journal*, **2021**, 913, 112	4.7	2
7	Prompt Response of the Dayside Magnetosphere to Discrete Structures Within the Sheath Region of a Coronal Mass Ejection. *Geophysical Research Letters*, **2021**, 48, e2021GL092700	4.9	2
6	Evaluating the de Hoffmann-Teller cross-shock potential at real collisionless shocks		1
5	Evaluating the deHoffmann-Teller Cross-Shock Potential at Real Collisionless Shocks. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2021JA029295	2.6	1
4	A Study of a Magnetic Cloud Propagating Through Large-Amplitude Alfvē Waves. *Journal of Geophysical Research: Space Physics*, **2020**, 125, e2019JA027638	2.6	0
3	Direct First Parker Solar Probe Observation of the Interaction of Two Successive Interplanetary Coronal Mass Ejections in 2020 November. *Astrophysical Journal*, **2022**, 930, 88	4.7	0
2	The Extended Field-aligned Suprathermal Proton Beam and Long-lasting Trapped Energetic Particle Population Observed Upstream of a Transient Interplanetary Shock. *Astrophysical Journal*, **2022**, 925, 198	4.7	
1	Oblique High Mach Number Heliospheric Shocks: The Role of □Particles. *Journal of Geophysical Research: Space Physics*, **2021**, 126, e2020JA028962	2.6	