M L Stevens

List of Publications by Year
in descending order

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130 papers	6,035 citations	66234 42 h-index	85405 71 g-index
132 all docs	132 docs citations	132 times ranked	1975 citing authors

#	Article	IF	Citations
1	Parker Solar Probe Evidence for the Absence of Whistlers Close to the Sun to Scatter Strahl and to Regulate Heat Flux. Astrophysical Journal Letters, 2022, 924, L33.	3.0	19
2	Improving the AlfvÃ©n Wave Solar Atmosphere Model Based on Parker Solar Probe Data. Astrophysical Journal, 2022, 925, 146.	1.6	16
3	Sub-AlfvÃ©nic Solar Wind Observed by the Parker Solar Probe: Characterization of Turbulence, Anisotropy, Intermittency, and Switchback. Astrophysical Journal Letters, 2022, 926, L1.	3.0	28
4	Turbulence in the Sub-AlfvÃ©nic Solar Wind. Astrophysical Journal Letters, 2022, 926, L16.	3.0	36
5	Statistical Analysis of Intermittency and its Association with Proton Heating in the Near-Sun Environment. Astrophysical Journal, 2022, 927, 140.	1.6	12
6	The Turbulent Properties of the Sub-AlfvÃ©nic Solar Wind Measured by the Parker Solar Probe. Astrophysical Journal Letters, 2022, 928, L15.	3.0	19
7	CMEs and SEPs During Novemberâ€“December 2020: A Challenge for Realâ€Time Space Weather Forecasting. Space Weather, 2022, 20, .	1.3	16
8	Parker Solar Probe Observations of Solar Wind Energetic Proton Beams Produced by Magnetic Reconnection in the Nearâ€Sun Heliospheric Current Sheet. Geophysical Research Letters, 2022, 49, .	1.5	15
9	Direct First Parker Solar Probe Observation of the Interaction of Two Successive Interplanetary Coronal Mass Ejections in 2020 November. Astrophysical Journal, 2022, 930, 88.	1.6	14
10	Eruption and Interplanetary Evolution of a Stealthy Streamer-Blowout CME Observed by PSP at âˆ¼0.5ÂAU. Frontiers in Astronomy and Space Sciences, 2022, 9, .	1.1	7
11	Electrostatic Waves with Rapid Frequency Shifts in the Solar Wind from PSP observations. , 2021, , .		0
12	Radial Evolution of a CIR: Observations From a Nearly Radially Aligned Event Between Parker Solar Probe and STEREOâ€A. Geophysical Research Letters, 2021, 48, e2020GL091376.	1.5	16
13	Determination of Solar Wind Angular Momentum and AlfvÃ©n Radius from Parker Solar Probe Observations. Astrophysical Journal Letters, 2021, 908, L41.	3.0	14
14	Inferred Linear Stability of Parker Solar Probe Observations Using One- and Two-component Proton Distributions. Astrophysical Journal, 2021, 909, 7.	1.6	22
15	Evidence of Subprotonâ€Scale Magnetic Holes in the Venusian Magnetosheath. Geophysical Research Letters, 2021, 48, e2020GL090329.	1.5	18
16	Multiscale Solar Wind Turbulence Properties inside and near Switchbacks Measured by the Parker Solar Probe. Astrophysical Journal, 2021, 912, 28.	1.6	23
17	Parker Solar Probe Evidence for Scattering of Electrons in the Young Solar Wind by Narrowband Whistler-mode Waves. Astrophysical Journal Letters, 2021, 911, L29.	3.0	24
18	Evolution of Solar Wind Turbulence from 0.1 to 1 au during the First Parker Solar Probeâ€“Solar Orbiter Radial Alignment. Astrophysical Journal Letters, 2021, 912, L21.	3.0	49

#	ARTICLE	IF	CITATIONS
19	Wave-particle energy transfer directly observed in an ion cyclotron wave. Astronomy and Astrophysics, 2021, 650, A10.	2.1	12
20	Magnetic increases with central current sheets: observations with Parker Solar Probe. Astronomy and Astrophysics, 2021, 650, A11.	2.1	8
21	Electron Bernstein waves and narrowband plasma waves near the electron cyclotron frequency in the near-Sun solar wind. Astronomy and Astrophysics, 2021, 650, A97.	2.1	12
22	Energetic particle behavior in near-Sun magnetic field switchbacks from PSP. Astronomy and Astrophysics, 2021, 650, L4.	2.1	12
23	AlfvÃ©nic versus non-AlfvÃ©nic turbulence in the inner heliosphere as observed by Parker Solar Probe. Astronomy and Astrophysics, 2021, 650, A21.	2.1	29
24	Electron heat flux in the near-Sun environment. Astronomy and Astrophysics, 2021, 650, A15.	2.1	32
25	Whistler wave occurrence and the interaction with strahl electrons during the first encounter of Parker Solar Probe. Astronomy and Astrophysics, 2021, 650, A9.	2.1	22
26	Narrowband oblique whistler-mode waves: comparing properties observed by Parker Solar Probe at <0.3 AU and STEREO at 1 AU. Astronomy and Astrophysics, 2021, 650, A8.	2.1	20
27	Using Parker Solar Probe observations during the first four perihelia to constrain global magnetohydrodynamic models. Astronomy and Astrophysics, 2021, 650, A19.	2.1	21
28	Switchbacks: statistical properties and deviations from AlfvÃ©nicity. Astronomy and Astrophysics, 2021, 650, A3.	2.1	37
29	A living catalog of stream interaction regions in the Parker Solar Probe era. Astronomy and Astrophysics, 2021, 650, A25.	2.1	17
30	Statistical analysis of orientation, shape, and size of solar wind switchbacks. Astronomy and Astrophysics, 2021, 650, A1.	2.1	34
31	Detection of small magnetic flux ropes from the third and fourth Parker Solar Probe encounters. Astronomy and Astrophysics, 2021, 650, A12.	2.1	35
32	Prevalence of magnetic reconnection in the near-Sun heliospheric current sheet. Astronomy and Astrophysics, 2021, 650, A13.	2.1	23
33	The contribution of alpha particles to the solar wind angular momentum flux in the inner heliosphere. Astronomy and Astrophysics, 2021, 650, A17.	2.1	11
34	Solar wind energy flux observations in the inner heliosphere: first results from Parker Solar Probe. Astronomy and Astrophysics, 2021, 650, A14.	2.1	12
35	Direct evidence for magnetic reconnection at the boundaries of magnetic switchbacks with Parker Solar Probe. Astronomy and Astrophysics, 2021, 650, A5.	2.1	27
36	The Sunward Electron Deficit: A Telltale Sign of the Sunâ€™s Electric Potential. Astrophysical Journal, 2021, 916, 16.	1.6	14

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37	Spectra of Temperature Fluctuations in the Solar Wind. Atmosphere, 2021, 12, 1277.	1.0	3
38	Characteristic Scales of Magnetic Switchback Patches Near the Sun and Their Possible Association With Solar Supergranulation and Granulation. Astrophysical Journal, 2021, 919, 96.	1.6	50
39	Kineticâ€Scale Turbulence in the Venusian Magnetosheath. Geophysical Research Letters, 2021, 48, e2020GL090783.	1.5	11
40	AlfvÃ©n Speed Transition Zone in the Solar Corona. Astrophysical Journal Letters, 2021, 919, L33.	3.0	7
41	Comparative Analysis of the 2020 November 29 Solar Energetic Particle Event Observed by Parker Solar Probe. Astrophysical Journal, 2021, 920, 123.	1.6	12
42	Exploring the Solar Wind from Its Source on the Corona into the Inner Heliosphere during the First Solar Orbiterâ€"Parker Solar Probe Quadrature. Astrophysical Journal Letters, 2021, 920, L14.	3.0	25
43	Predicting the Magnetic Fields of a Stealth CME Detected by Parker Solar Probe at 0.5 au. Astrophysical Journal, 2021, 920, 65.	1.6	17
44	Ambipolar Electric Field and Potential in the Solar Wind Estimated from Electron Velocity Distribution Functions. Astrophysical Journal, 2021, 921, 83.	1.6	14
45	Solar Origin of Bare Ion Anomalies in the Solar Wind and Interplanetary Coronal Mass Ejections. Astrophysical Journal, 2021, 921, 93.	1.6	10
46	<i>Parker Solar Probe</i> Enters the Magnetically Dominated Solar Corona. Physical Review Letters, 2021, 127, 255101.	2.9	104
47	Plasma Double Layers at the Boundary Between Venus and the Solar Wind. Geophysical Research Letters, 2020, 47, e2020GL090115.	1.5	16
48	The Streamer Blowout Origin of a Flux Rope and Energetic Particle Event Observed by Parker Solar Probe at 0.5 au. Astrophysical Journal, 2020, 897, 134.	1.6	14
49	(Non)radial Solar Wind Propagation through the Heliosphere. Astrophysical Journal Letters, 2020, 897, L39.	3.0	9
50	Proton core behaviour inside magnetic field switchbacks. Monthly Notices of the Royal Astronomical Society, 2020, 498, 5524-5531.	1.6	29
51	Parker Solar Probe Observations of Proton Beams Simultaneous with Ion-scale Waves. Astrophysical Journal, Supplement Series, 2020, 248, 5.	3.0	62
52	Switchbacks in the Solar Magnetic Field: Their Evolution, Their Content, and Their Effects on the Plasma. Astrophysical Journal, Supplement Series, 2020, 246, 68.	3.0	83
53	The Heliospheric Current Sheet and Plasma Sheet during Parker Solar Probeâ€™s First Orbit. Astrophysical Journal Letters, 2020, 894, L19.	3.0	39
54	MHD Mode Composition in the Inner Heliosphere from the <i>Parker Solar Probe</i>â€™s First Perihelion. Astrophysical Journal, Supplement Series, 2020, 246, 71.	3.0	17

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55	Proton Temperature Anisotropy Variations in Inner Heliosphere Estimated with the First <i>Parker Solar Probe</i> Observations. Astrophysical Journal, Supplement Series, 2020, 246, 70.	3.0	56
56	Sunward-propagating Whistler Waves Collocated with Localized Magnetic Field Holes in the Solar Wind: Parker Solar Probe Observations at 35.7 R_{âŠ™} Radii. Astrophysical Journal Letters, 2020, 891, L20.	3.0	46
57	The Solar Probe ANalyzersâ€"Electrons on the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 74.	3.0	114
58	The Solar Probe Cup on the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 43.	3.0	154
59	Observations of Energetic-particle Population Enhancements along Intermittent Structures near the Sun from the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 61.	3.0	25
60	Constraining Ion-Scale Heating and Spectral Energy Transfer in Observations of Plasma Turbulence. Physical Review Letters, 2020, 125, 025102.	2.9	29
61	Relating Streamer Flows to Density and Magnetic Structures at the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 37.	3.0	52
62	Analysis of the Internal Structure of the Streamer Blowout Observed by the Parker Solar Probe During the First Solar Encounter. Astrophysical Journal, Supplement Series, 2020, 246, 63.	3.0	34
63	Density Fluctuations in the Solar Wind Based on Type III Radio Bursts Observed by Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 57.	3.0	45
64	Clustering of Intermittent Magnetic and Flow Structures near Parker Solar Probeâ€™s First Perihelionâ€"A Partial-variance-of-increments Analysis. Astrophysical Journal, Supplement Series, 2020, 246, 31.	3.0	37
65	Observations of Heating along Intermittent Structures in the Inner Heliosphere from PSP Data. Astrophysical Journal, Supplement Series, 2020, 246, 46.	3.0	26
66	The Heliospheric Current Sheet in the Inner Heliosphere Observed by the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 47.	3.0	50
67	The Evolution and Role of Solar Wind Turbulence in the Inner Heliosphere. Astrophysical Journal, Supplement Series, 2020, 246, 53.	3.0	166
68	Measures of Scale-dependent AlfvÃ©nicity in the First <i>PSP</i> Solar Encounter. Astrophysical Journal, Supplement Series, 2020, 246, 58.	3.0	51
69	Source and Propagation of a Streamer Blowout Coronal Mass Ejection Observed by the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 69.	3.0	29
70	Solar Wind Streams and Stream Interaction Regions Observed by the Parker Solar Probe with Corresponding Observations at 1 au. Astrophysical Journal, Supplement Series, 2020, 246, 36.	3.0	43
71	Ion-scale Electromagnetic Waves in the Inner Heliosphere. Astrophysical Journal, Supplement Series, 2020, 246, 66.	3.0	67
72	Cross Helicity Reversals in Magnetic Switchbacks. Astrophysical Journal, Supplement Series, 2020, 246, 67.	3.0	61

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73	The Role of AlfvÃ©n Wave Dynamics on the Large-scale Properties of the Solar Wind: Comparing an MHD Simulation with Parker Solar Probe E1 Data. Astrophysical Journal, Supplement Series, 2020, 246, 24.	3.0	66
74	Solar Energetic Particles Produced by a Slow Coronal Mass Ejection at âˆ¼0.25 au. Astrophysical Journal, Supplement Series, 2020, 246, 29.	3.0	35
75	³He-rich Solar Energetic Particle Observations at the Parker Solar Probe and near Earth. Astrophysical Journal, Supplement Series, 2020, 246, 42.	3.0	27
76	Enhanced Energy Transfer Rate in Solar Wind Turbulence Observed near the Sun from <i>Parker Solar Probe</i>. Astrophysical Journal, Supplement Series, 2020, 246, 48.	3.0	56
77	Statistics and Polarization of Type III Radio Bursts Observed in the Inner Heliosphere. Astrophysical Journal, Supplement Series, 2020, 246, 49.	3.0	35
78	Energetic Particle Increases Associated with Stream Interaction Regions. Astrophysical Journal, Supplement Series, 2020, 246, 20.	3.0	31
79	Plasma Waves near the Electron Cyclotron Frequency in the Near-Sun Solar Wind. Astrophysical Journal, Supplement Series, 2020, 246, 21.	3.0	30
80	Electrons in the Young Solar Wind: First Results from the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 22.	3.0	99
81	Identification of Magnetic Flux Ropes from Parker Solar Probe Observations during the First Encounter. Astrophysical Journal, Supplement Series, 2020, 246, 26.	3.0	57
82	The Enhancement of Proton Stochastic Heating in the Near-Sun Solar Wind. Astrophysical Journal, Supplement Series, 2020, 246, 30.	3.0	23
83	Magnetic Field Kinks and Folds in the Solar Wind. Astrophysical Journal, Supplement Series, 2020, 246, 32.	3.0	86
84	Seed Population Preconditioning and Acceleration Observed by the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 33.	3.0	21
85	Parker Solar Probe In Situ Observations of Magnetic Reconnection Exhausts during Encounter 1. Astrophysical Journal, Supplement Series, 2020, 246, 34.	3.0	65
86	Observations of the 2019 April 4 Solar Energetic Particle Event at the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 35.	3.0	27
87	Turbulence Transport Modeling and First Orbit Parker Solar Probe (PSP) Observations. Astrophysical Journal, Supplement Series, 2020, 246, 38.	3.0	53
88	Predicting the Solar Wind at the Parker Solar Probe Using an Empirically Driven MHD Model. Astrophysical Journal, Supplement Series, 2020, 246, 40.	3.0	14
89	Coronal Electron Temperature Inferred from the Strahl Electrons in the Inner Heliosphere: Parker Solar Probe and Helios Observations. Astrophysical Journal, 2020, 892, 88.	1.6	34
90	Localized Magnetic-field Structures and Their Boundaries in the Near-Sun Solar Wind from Parker Solar Probe Measurements. Astrophysical Journal, 2020, 893, 93.	1.6	44

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91	Electron Energy Partition across Interplanetary Shocks. III. Analysis. Astrophysical Journal, 2020, 893, 22.	1.6	21
92	Small Electron Events Observed by Parker Solar Probe/ISâŠ™IS during Encounter 2. Astrophysical Journal, 2020, 902, 20.	1.6	9
93	Small-scale Magnetic Flux Ropes in the First Two Parker Solar Probe Encounters. Astrophysical Journal, 2020, 903, 76.	1.6	22
94	Magnetic Connectivity of the Ecliptic Plane within 0.5 au: Potential Field Source Surface Modeling of the First Parker Solar Probe Encounter. Astrophysical Journal, Supplement Series, 2020, 246, 23.	3.0	100
95	Sharp AlfvÃ©nic Impulses in the Near-Sun Solar Wind. Astrophysical Journal, Supplement Series, 2020, 246, 45.	3.0	115
96	Kinetic-scale Spectral Features of Cross Helicity and Residual Energy in the Inner Heliosphere. Astrophysical Journal, Supplement Series, 2020, 246, 52.	3.0	10
97	Exploring Solar Wind Origins and Connecting Plasma Flows from the <i>Parker Solar Probe</i> to 1 au: Nonspherical Source Surface and AlfvÃ©nic Fluctuations. Astrophysical Journal, Supplement Series, 2020, 246, 54.	3.0	46
98	Anticorrelation between the Bulk Speed and the Electron Temperature in the Pristine Solar Wind: First Results from the <i>Parker Solar Probe</i> and Comparison with <i>Helios</i>. Astrophysical Journal, Supplement Series, 2020, 246, 62.	3.0	55
99	The Radial Dependence of Proton-scale Magnetic Spectral Break in Slow Solar Wind during <i>PSP</i> Encounter 2. Astrophysical Journal, Supplement Series, 2020, 246, 55.	3.0	36
100	The Solar Wind Angular Momentum Flux as Observed by Parker Solar Probe. Astrophysical Journal Letters, 2020, 902, L4.	3.0	11
101	Electron Energy Partition across Interplanetary Shocks. I. Methodology and Data Product. Astrophysical Journal, Supplement Series, 2019, 243, 8.	3.0	57
102	Electron Energy Partition across Interplanetary Shocks. II. Statistics. Astrophysical Journal, Supplement Series, 2019, 245, 24.	3.0	40
103	Probing the energetic particle environment near the Sun. Nature, 2019, 576, 223-227.	13.7	103
104	AlfvÃ©nic velocity spikes and rotational flows in the near-Sun solar wind. Nature, 2019, 576, 228-231.	13.7	311
105	Highly structured slow solar wind emerging from an equatorial coronal hole. Nature, 2019, 576, 237-242.	13.7	401
106	Plasma Heating and AlfvÃ©nic Turbulence Enhancement During Two Steps of Energy Conversion in Magnetic Reconnection Exhaust Region of Solar Wind. Astrophysical Journal, 2018, 856, 148.	1.6	28
107	A Comparison of Alpha Particle and Proton Beam Differential Flows in Collisionally Young Solar Wind. Astrophysical Journal, 2018, 864, 112.	1.6	55
108	The Statistical Properties of Solar Wind Temperature Parameters Near 1 au. Astrophysical Journal, Supplement Series, 2018, 236, 41.	3.0	94

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109	Majority of Solar Wind Intervals Support Ion-Driven Instabilities. Physical Review Letters, 2018, 120, 205102.	2.9	51
110	Interaction of the Interplanetary Shock and IMF Directional Discontinuity in the Solar Wind. Journal of Geophysical Research: Space Physics, 2018, 123, 3822-3835.	0.8	1
111	ALPS: the Arbitrary Linear Plasma Solver. Journal of Plasma Physics, 2018, 84, .	0.7	19
112	Revisiting the structure of lowâ€Mach number, lowâ€beta, quasiâ€perpendicular shocks. Journal of Geophysical Research: Space Physics, 2017, 122, 9115-9133.	0.8	52
113	A Zone of Preferential Ion Heating Extends Tens of Solar Radii from the Sun. Astrophysical Journal, 2017, 849, 126.	1.6	47
114	Applying Nyquist's method for stability determination to solar wind observations. Journal of Geophysical Research: Space Physics, 2017, 122, 9815-9823.	0.8	17
115	MULTI-SPECIES MEASUREMENTS OF THE FIREHOSE AND MIRROR INSTABILITY THRESHOLDS IN THE SOLAR WIND. Astrophysical Journal Letters, 2016, 825, L26.	3.0	86
116	Electromagnetic cyclotron waves in the solar wind: Wind observation and wave dispersion analysis. AIP Conference Proceedings, 2016, , .	0.3	10
117	Ionâ€driven instabilities in the solar wind: Wind observations of 19 March 2005. Journal of Geophysical Research: Space Physics, 2016, 121, 30-41.	0.8	66
118	A PROTON-CYCLOTRON WAVE STORM GENERATED BY UNSTABLE PROTON DISTRIBUTION FUNCTIONS IN THE SOLAR WIND. Astrophysical Journal, 2016, 819, 6.	1.6	57
119	MarsCAT: Mars Array of ionospheric Research Satellites using the CubeSat Ambipolar Thruster. , 2016, , .		0
120	Solar Wind Electrons Alphas and Protons (SWEAP) Investigation: Design of the Solar Wind and Coronal Plasma Instrument Suite for Solar Probe Plus. Space Science Reviews, 2016, 204, 131-186.	3.7	439
121	The solar magnetic activity band interaction and instabilities that shape quasi-periodic variability. Nature Communications, 2015, 6, 6491.	5.8	97
122	Science Enhancements by the MAVEN Participating Scientists. Space Science Reviews, 2015, 195, 319-355.	3.7	1
123	Coronal electron temperature in the protracted solar minimum, the cycle 24 mini maximum, and over centuries. Journal of Geophysical Research: Space Physics, 2014, 119, 1486-1492.	0.8	19
124	Solar Wind Electrons Alphas and Protons (SWEAP) Science Operations Center initial design and implementation. Proceedings of SPIE, 2014, , .	0.8	1
125	Sensitive Test for Ion-Cyclotron Resonant Heating in the Solar Wind. Physical Review Letters, 2013, 110, 091102.	2.9	95
126	Collisional Thermalization of Hydrogen and Helium in Solar-Wind Plasma. Physical Review Letters, 2013, 111, 241101.	2.9	40

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127	EVOLUTION OF THE RELATIONSHIPS BETWEEN HELIUM ABUNDANCE, MINOR ION CHARGE STATE, AND SOLAR WIND SPEED OVER THE SOLAR CYCLE. Astrophysical Journal, 2012, 745, 162.	1.6	96
128	SOLAR CYCLE VARIATIONS IN THE ELEMENTAL ABUNDANCE OF HELIUM AND FRACTIONATION OF IRON IN THE FAST SOLAR WIND: INDICATORS OF AN EVOLVING ENERGETIC RELEASE OF MASS FROM THE LOWER SOLAR ATMOSPHERE. Astrophysical Journal Letters, 2011, 740, L23.	3.0	21
129	CORONAL ELECTRON TEMPERATURE FROM THE SOLAR WIND SCALING LAW THROUGHOUT THE SPACE AGE. Astrophysical Journal, 2011, 739, 9.	1.6	29
130	Solar Wind Helium Abundance as a Function of Speed and Heliographic Latitude: Variation through a Solar Cycle. Astrophysical Journal, 2007, 660, 901-910.	1.6	141