Matthew E Hill

List of Publications by Year
in descending order

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85 papers	3,813 citations	201674 27 h-index	128289 60 g-index
86 all docs	86 docs citations	86 times ranked	2357 citing authors

#	Article	IF	Citations
1	The Pluto system: Initial results from its exploration by New Horizons. Science, 2015, 350, aad1815.	12.6	407
2	Voyager 1 in the Foreshock, Termination Shock, and Heliosheath. Science, 2005, 309, 2020-2024.	12.6	405
3	Mediation of the solar wind termination shock by non-thermal ions. Nature, 2008, 454, 67-70.	27.8	221
4	The geology of Pluto and Charon through the eyes of New Horizons. Science, 2016, 351, 1284-1293.	12.6	219
5	The atmosphere of Pluto as observed by New Horizons. Science, 2016, 351, aad8866.	12.6	201
6	Search for the Exit: Voyager 1 at Heliosphereâ€™s Border with the Galaxy. Science, 2013, 341, 144-147.	12.6	186
7	Voyager 1 exited the solar wind at a distance of â^¼85â€‰au from the Sun. Nature, 2003, 426, 45-48.	27.8	170
8	Integrated Science Investigation of the Sun (ISIS): Design of the Energetic Particle Investigation. Space Science Reviews, 2016, 204, 187-256.	8.1	139
9	Zero outward flow velocity for plasma in a heliosheath transition layer. Nature, 2011, 474, 359-361.	27.8	120
10	Initial results from the New Horizons exploration of 2014 MU ₆₉ , a small Kuiper Belt object. Science, 2019, 364, .	12.6	113
11	Probing the energetic particle environment near the Sun. Nature, 2019, 576, 223-227.	27.8	103
12	The geology and geophysics of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	76
13	No meridional plasma flow in the heliosheath transition region. Nature, 2012, 489, 124-127.	27.8	70
14	Color, composition, and thermal environment of Kuiper Belt object (486958) Arrokoth. Science, 2020, 367, .	12.6	64
15	Plutoâ€™s interaction with its space environment: Solar wind, energetic particles, and dust. Science, 2016, 351, aad9045.	12.6	60
16	Energetic charged particle measurements from Voyager 2 at the heliopause and beyond. Nature Astronomy, 2019, 3, 997-1006.	10.1	59
17	The Pluto Energetic Particle Spectrometer Science Investigation (PEPSSI) on the New Horizons Mission. Space Science Reviews, 2008, 140, 315-385.	8.1	53
18	Energetic Particles in the Jovian Magnetotail. Science, 2007, 318, 220-222.	12.6	50

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19	The Near-Sun Dust Environment: Initial Observations from Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 27.	7.7	47
20	The formation of Charonâ€™s red poles from seasonally cold-trapped volatiles. Nature, 2016, 539, 65-68.	27.8	44
21	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.	7.7	43
22	The Mushroom: A halfâ€sky energetic ion and electron detector. Journal of Geophysical Research: Space Physics, 2017, 122, 1513-1530.	2.4	40
23	Solar Energetic Particles Produced by a Slow Coronal Mass Ejection at â¼0.25 au. Astrophysical Journal, Supplement Series, 2020, 246, 29.	7.7	35
24	Modelling anomalous cosmic ray oxygen in the heliosheath. Astronomy and Astrophysics, 2010, 522, A35.	5.1	34
25	Energetic Particle Increases Associated with Stream Interaction Regions. Astrophysical Journal, Supplement Series, 2020, 246, 20.	7.7	31
26	Formation of Power Law Tail with Spectral Index-5 Inside and Beyond the Heliosphere. AIP Conference Proceedings, 2008, , .	0.4	29
27	Properties of Suprathermal-through-energetic He Ions Associated with Stream Interaction Regions Observed over the Parker Solar Probeâ€™s First Two Orbits. Astrophysical Journal, Supplement Series, 2020, 246, 56.	7.7	29
28	A radiation belt of energetic protons located between Saturn and its rings. Science, 2018, 362, .	12.6	27
29	³He-rich Solar Energetic Particle Observations at the Parker Solar Probe and near Earth. Astrophysical Journal, Supplement Series, 2020, 246, 42.	7.7	27
30	Observations of the 2019 April 4 Solar Energetic Particle Event at the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 35.	7.7	27
31	Recent Particle Measurements from Voyagers 1 and 2. Journal of Physics: Conference Series, 2015, 577, 012006.	0.4	26
32	Observations of Energetic-particle Population Enhancements along Intermittent Structures near the Sun from the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 61.	7.7	25
33	Composition of energetic particles in the Jovian magnetotail. Journal of Geophysical Research, 2009, 114, .	3.3	23
34	Small, Low-energy, Dispersive Solar Energetic Particle Events Observed by Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 65.	7.7	23
35	Periodicity of 151 days in outer heliospheric anomalous cosmic ray fluxes. Journal of Geophysical Research, 2001, 106, 8315-8322.	3.3	21
36	Composition of Interstellar Neutrals and the Origin ofÂAnomalous Cosmic Rays. Space Science Reviews, 2009, 143, 163-175.	8.1	21

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37	CME-associated Energetic Ions at 0.23 au: Consideration of the Auroral Pressure Cooker Mechanism Operating in the Low Corona as a Possible Energization Process. Astrophysical Journal, Supplement Series, 2020, 246, 59.	7.7	21
38	Seed Population Preconditioning and Acceleration Observed by the Parker Solar Probe. Astrophysical Journal, Supplement Series, 2020, 246, 33.	7.7	21
39	The Structure of the Global Heliosphere as Seen by In-Situ Ions from the Voyagers and Remotely Sensed ENAs from Cassini. Space Science Reviews, 2022, 218, 1.	8.1	21
40	Magnetic field line random walk and solar energetic particle path lengths. Astronomy and Astrophysics, 2021, 650, A26.	5.1	20
41	INTERPLANETARY SUPRATHERMAL He ⁺ AND He ⁺⁺ OBSERVATIONS DURING QUIET PERIODS FROM 1 TO 9 AU AND IMPLICATIONS FOR PARTICLE ACCELERATION. Astrophysical Journal, 2009, 699, L26-L30.	4.5	19
42	DEPENDENCE OF ENERGETIC ION AND ELECTRON INTENSITIES ON PROXIMITY TO THE MAGNETICALLY SECTORED HELIOSHEATH:VOYAGER 1AND2OBSERVATIONS. Astrophysical Journal, 2014, 781, 94.	4.5	19
43	Solar wind at 33â€‰AU: Setting bounds on the Pluto interaction for New Horizons. Journal of Geophysical Research E: Planets, 2015, 120, 1497-1511.	3.6	19
44	The puzzling detection of x-rays from Pluto by Chandra. Icarus, 2017, 287, 103-109.	2.5	19
45	Low-energy ions near the termination shock. AIP Conference Proceedings, 2006, , .	0.4	18
46	Energetic particle evidence for magnetic filaments in Jupiter's magnetotail. Journal of Geophysical Research, 2009, 114, .	3.3	18
47	Energetic Particle Observations from the Parker Solar Probe Using Combined Energy Spectra from the ISâ€™IS Instrument Suite. Astrophysical Journal, Supplement Series, 2020, 246, 41.	7.7	17
48	A living catalog of stream interaction regions in the Parker Solar Probe era. Astronomy and Astrophysics, 2021, 650, A25.	5.1	17
49	Energetic Electron Observations by Parker Solar Probe/ISâ€™IS during the First Widespread SEP Event of Solar Cycle 25 on 2020 November 29. Astrophysical Journal, 2021, 919, 119.	4.5	17
50	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.	4.0	16
51	Anomalous Cosmic Rays and Heliospheric Energetic Particles. Space Science Reviews, 2022, 218, 22.	8.1	16
52	Variations of Low-energy Ion Distributions Measured in the Heliosheath. , 2010, , .		15
53	The â€œPuckâ€•energetic charged particle detector: Design, heritage, and advancements. Journal of Geophysical Research: Space Physics, 2016, 121, 7900-7913.	2.4	15
54	Suprathermal Ions in the Outer Heliosphere. Astrophysical Journal, 2019, 876, 46.	4.5	15

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55	A new view of energetic particles from stream interaction regions observed by Parker Solar Probe. Astronomy and Astrophysics, 2021, 650, A24.	5.1	15
56	Ions Measured by Voyager 1 Outside the Heliopause to ~28 au and Implications Thereof. Astrophysical Journal, 2021, 917, 42.	4.5	15
57	Influence of Solar Disturbances on Galactic Cosmic Rays in the Solar Wind, Heliosheath, and Local Interstellar Medium: Advanced Composition Explorer, New Horizons, and Voyager Observations. Astrophysical Journal, 2020, 905, 69.	4.5	15
58	Time evolution of stream interaction region energetic particle spectra in the inner heliosphere. Astronomy and Astrophysics, 2021, 650, L5.	5.1	14
59	Parker Solar Probe observations of He/H abundance variations in SEP events inside 0.5 au. Astronomy and Astrophysics, 2021, 650, A23.	5.1	13
60	Energetic particle behavior in near-Sun magnetic field switchbacks from PSP. Astronomy and Astrophysics, 2021, 650, L4.	5.1	12
61	Evolution of Anomalous Cosmic-Ray Oxygen and Helium Energy Spectra during the Solar Cycle 22 Recovery Phase in the Outer Heliosphere. Astrophysical Journal, 2002, 572, L169-L172.	4.5	12
62	Comparative Analysis of the 2020 November 29 Solar Energetic Particle Event Observed by Parker Solar Probe. Astrophysical Journal, 2021, 920, 123.	4.5	12
63	Convection in the Magnetosphere of Saturn During the Cassini Mission Derived From MIMI INCA and CHEMS Measurements. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027534.	2.4	11
64	Parker Solar Probe observations of helical structures as boundaries for energetic particles. Monthly Notices of the Royal Astronomical Society, 2021, 508, 2114-2122.	4.4	10
65	Energetic Particles Associated with a Coronal Mass Ejection Shock Interacting with a Convected Magnetic Structure. Astrophysical Journal, 2021, 921, 102.	4.5	10
66	Statistics of Langmuir wave amplitudes observed inside Saturn's foreshock by the Cassini spacecraft. Journal of Geophysical Research: Space Physics, 2015, 120, 2531-2542.	2.4	9
67	Small Electron Events Observed by Parker Solar Probe/ISâŠ™IS during Encounter 2. Astrophysical Journal, 2020, 902, 20.	4.5	9
68	Particle Acceleration at the Termination Shock: Voyager 1 and 2 Observations. AIP Conference Proceedings, 2008, , .	0.4	8
69	VOYAGER OBSERVATIONS OF MAGNETIC SECTORS AND HELIOSPHERIC CURRENT SHEET CROSSINGS IN THE OUTER HELIOSPHERE. Astrophysical Journal, 2016, 831, 115.	4.5	8
70	Anomalous cosmic ray intensity variations in the inner and outer heliosphere during the solar cycle 22 recovery phase (1991â€“1999). Journal of Geophysical Research, 2003, 108, .	3.3	7
71	Heliosheath particles, anomalous cosmic rays and a possible â€œthird sourceâ€•of energetic ions. AIP Conference Proceedings, 2006, , .	0.4	6
72	Plasma and energetic particle observations in Jupiter's deep tail near the magnetopause. Journal of Geophysical Research: Space Physics, 2014, 119, 6432-6444.	2.4	4

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73	Pluto's Interaction With Energetic Heliospheric Ions. Journal of Geophysical Research: Space Physics, 2019, 124, 7413-7424.	2.4	4
74	Proton irradiation environment of solar system objects in the heliospheric boundary regions. AIP Conference Proceedings, 2006, , .	0.4	3
75	Foreshock, termination shock, and heliosheath: Voyager 1/2 observations of structure and turbulence. AIP Conference Proceedings, 2007, , .	0.4	3
76	Termination Shock and Heliosheath: Energetic Ion Variations Measured at Voyagers 1 and 2. , 2009, , .		3
77	Interim Report on the Power Law Index of Interplanetary Suprathermal Ion Spectra. AIP Conference Proceedings, 2010, , .	0.4	3
78	PSP/ISâŠ™IS Observation of a Solar Energetic Particle Event Associated with a Streamer Blowout Coronal Mass Ejection during Encounter 6. Astrophysical Journal, 2022, 925, 212.	4.5	3
79	Suprathermal Ion Energy Spectra and Anisotropies near the Heliospheric Current Sheet Crossing Observed by the Parker Solar Probe during Encounter 7. Astrophysical Journal, 2022, 927, 62.	4.5	3
80	Energetic Particle Observations Near the Termination Shock. AIP Conference Proceedings, 2004, , .	0.4	2
81	First Measurements of Jovian Electrons by Parker Solar Probe/ISâŠ™IS within 0.5 au of the Sun. Astrophysical Journal, 2022, 933, 171.	4.5	2
82	Investigating the Heliosphere with Low-energy Anomalous Cosmic Rays. AIP Conference Proceedings, 2004, , .	0.4	1
83	The Pluto Energetic Particle Spectrometer Science Investigation (PEPSSI) on the New Horizons Mission. , 2009, , 315-385.		1
84	Composition of Interstellar Neutrals and the Origin ofÂAnomalous Cosmic Rays. Space Sciences Series of ISSI, 2009, , 163-175.	0.0	1
85	Solar Wind Model Supported by Parker Solar Probe Observations During Faint Venusian Auroral Emission. Astrophysical Journal, 2022, 929, 45.	4.5	0