Timothy Horbury

List of Publications by Year
in descending order

84 papers	5,416 citations	101543 36 h-index	82547 72 g-index
84 all docs	84 docs citations	84 times ranked	2193 citing authors

#	Article	IF	Citations
1	The FIELDS Instrument Suite for Solar Probe Plus. Space Science Reviews, 2016, 204, 49-82.	8.1	521
2	The Solar Orbiter mission. Astronomy and Astrophysics, 2020, 642, A1.	5.1	514
3	Highly structured slow solar wind emerging from an equatorial coronal hole. Nature, 2019, 576, 237-242.	27.8	401
4	Anisotropic Scaling of Magnetohydrodynamic Turbulence. Physical Review Letters, 2008, 101, 175005.	7.8	326
5	AlfvÃ©nic velocity spikes and rotational flows in the near-Sun solar wind. Nature, 2019, 576, 228-231.	27.8	311
6	Power and spectral index anisotropy of the entire inertial range of turbulence in the fast solar wind. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 407, L31-L35.	3.3	151
7	Quasi-perpendicular Shock Structure and Processes. Space Science Reviews, 2005, 118, 161-203.	8.1	144
8	The Solar Orbiter Solar Wind Analyser (SWA) suite. Astronomy and Astrophysics, 2020, 642, A16.	5.1	141
9	The Solar Orbiter magnetometer. Astronomy and Astrophysics, 2020, 642, A9.	5.1	136
10	Quasi-parallel Shock Structure and Processes. Space Science Reviews, 2005, 118, 205-222.	8.1	119
11	Sharp AlfvÃ©nic Impulses in the Near-Sun Solar Wind. Astrophysical Journal, Supplement Series, 2020, 246, 45.	7.7	115
12	The Energetic Particle Detector. Astronomy and Astrophysics, 2020, 642, A7.	5.1	107
13	THREE-DIMENSIONAL STRUCTURE OF SOLAR WIND TURBULENCE. Astrophysical Journal, 2012, 758, 120.	4.5	105
14	Heliospheric magnetic field polarity inversions at high heliographic latitudes. Geophysical Research Letters, 1999, 26, 631-634.	4.0	98
15	Short, large-amplitude speed enhancements in the near-Sunfast solar wind. Monthly Notices of the Royal Astronomical Society, 2018, 478, 1980-1986.	4.4	95
16	Magnetosheath pressure pulses: Generation downstream of the bow shock from solar wind discontinuities. Journal of Geophysical Research, 2012, 117, .	3.3	86
17	Dependence of solar wind speed on the local magnetic field orientation: Role of AlfvÃ©nic fluctuations. Geophysical Research Letters, 2014, 41, 259-265.	4.0	83
18	Switchbacks as signatures of magnetic flux ropes generated by interchange reconnection in the corona. Astronomy and Astrophysics, 2021, 650, A2.	5.1	80

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19	The Solar Orbiter Radio and Plasma Waves (RPW) instrument. Astronomy and Astrophysics, 2020, 642, A12.	5.1	80
20	ION KINETIC ENERGY CONSERVATION AND MAGNETIC FIELD STRENGTH CONSTANCY IN MULTI-FLUID SOLAR WIND ALFVÃ‰NIC TURBULENCE. Astrophysical Journal, 2015, 802, 11.	4.5	72
21	The Solar Orbiter Science Activity Plan. Astronomy and Astrophysics, 2020, 642, A3.	5.1	67
22	A Solar Source of AlfvÃ©nic Magnetic Field Switchbacks: In Situ Remnants of Magnetic Funnels on Supergranulation Scales. Astrophysical Journal, 2021, 923, 174.	4.5	67
23	Parker Solar Probe In Situ Observations of Magnetic Reconnection Exhausts during Encounter 1. Astrophysical Journal, Supplement Series, 2020, 246, 34.	7.7	65
24	Evolution of magnetic field fluctuations in high-speed solar wind streams: Ulysses and Helios observations. Journal of Geophysical Research, 2001, 106, 15929-15940.	3.3	62
25	Estimating total heliospheric magnetic flux from singleâ€point in situ measurements. Journal of Geophysical Research, 2008, 113, .	3.3	62
26	Conservation of open solar magnetic flux and the floor in the heliospheric magnetic field. Geophysical Research Letters, 2008, 35, .	4.0	58
27	Magnetic field depressions in the solar wind. Journal of Geophysical Research, 2000, 105, 12725-12732.	3.3	56
28	On the 1/f Spectrum in the Solar Wind and Its Connection with Magnetic Compressibility. Astrophysical Journal Letters, 2018, 869, L32.	8.3	53
29	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.	8.3	49
30	Diagnosing solar wind origins usingin situmeasurements in the inner heliosphere. Monthly Notices of the Royal Astronomical Society, 2019, 482, 1706-1714.	4.4	48
31	Ripples observed on the surface of the Earth's quasi-perpendicular bow shock. Journal of Geophysical Research, 2006, 111, .	3.3	45
32	Magnetic Discontinuities in the Near-Earth Solar Wind: Evidence of In-Transit Turbulence or Remnants ofÂCoronal Structure?. Solar Physics, 2011, 269, 411-420.	2.5	44
33	Cluster observations of fast magnetosonic waves in the terrestrial foreshock. Geophysical Research Letters, 2002, 29, 3-1-3-4.	4.0	43
34	The role of pressure gradients in driving sunward magnetosheath flows and magnetopause motion. Journal of Geophysical Research: Space Physics, 2014, 119, 8117-8125.	2.4	43
35	Enhanced proton parallel temperature inside patches of switchbacks in the inner heliosphere. Astronomy and Astrophysics, 2021, 650, L1.	5.1	43
36	Radial evolution of the solar wind in pure high-speed streams: HELIOS revised observations. Monthly Notices of the Royal Astronomical Society, 2019, 483, 3730-3737.	4.4	42

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37	Alignment and Scaling of Large-Scale Fluctuations in the Solar Wind. Physical Review Letters, 2013, 110, 025003.	7.8	41
38	Magnetospheric â€œmagicâ€•frequencies as magnetopause surface eigenmodes. Geophysical Research Letters, 2013, 40, 5003-5008.	4.0	37
39	The first widespread solar energetic particle event observed by Solar Orbiter on 2020 November 29. Astronomy and Astrophysics, 2021, 656, A20.	5.1	36
40	Motion and orientation of magnetic field dips and peaks in the terrestrial magnetosheath. Journal of Geophysical Research, 2004, 109, .	3.3	35
41	Measures of three-dimensional anisotropy and intermittency in strong AlfvÃ©nic turbulence. Monthly Notices of the Royal Astronomical Society, 2016, 459, 2130-2139.	4.4	35
42	Ion cyclotron waves in the high altitude cusp: CLUSTER observations at varying spacecraft separations. Geophysical Research Letters, 2003, 30, .	4.0	34
43	The Variation of Solar Wind Correlation Lengths Over Three Solar Cycles. Solar Physics, 2010, 262, 191-198.	2.5	34
44	A New Inner Heliosphere Proton Parameter Dataset from the Helios Mission. Solar Physics, 2018, 293, 155.	2.5	34
45	Statistical analysis of orientation, shape, and size of solar wind switchbacks. Astronomy and Astrophysics, 2021, 650, A1.	5.1	34
46	The origin of slow AlfvÃ©nic solar wind at solar minimum. Monthly Notices of the Royal Astronomical Society, 2020, 492, 39-44.	4.4	30
47	Proton core behaviour inside magnetic field switchbacks. Monthly Notices of the Royal Astronomical Society, 2020, 498, 5524-5531.	4.4	29
48	First year of energetic particle measurements in the inner heliosphere with Solar Orbiterâ€™s Energetic Particle Detector. Astronomy and Astrophysics, 2021, 656, A22.	5.1	29
49	Ensemble downscaling in coupled solar windâ€•magnetosphere modeling for space weather forecasting. Space Weather, 2014, 12, 395-405.	3.7	27
50	Kinetic aspects of foreshock cavities. Geophysical Research Letters, 2006, 33, .	4.0	25
51	Alpha particle thermodynamics in the inner heliosphere fast solar wind. Astronomy and Astrophysics, 2019, 623, L2.	5.1	25
52	Size, shape, and orientation of magnetosheath mirror mode structures. Journal of Geophysical Research, 2009, 114, .	3.3	24
53	Density fluctuations associated with turbulence and waves. Astronomy and Astrophysics, 2021, 656, A19.	5.1	24
54	Thermodynamics of pure fast solar wind: radial evolution of the temperatureâ€“speed relationship in the inner heliosphere. Monthly Notices of the Royal Astronomical Society, 2019, 488, 2380-2386.	4.4	23

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55	Highly AlfvÃ©nic slow solar wind at 0.3 au during a solar minimum: Helios insights for Parker Solar Probe and Solar Orbiter. Astronomy and Astrophysics, 2020, 633, A166.	5.1	23
56	Cluster at the Bow Shock: Introduction. Space Science Reviews, 2005, 118, 155-160.	8.1	20
57	Flux rope and dynamics of the heliospheric current sheet. Astronomy and Astrophysics, 2022, 659, A110.	5.1	20
58	Magnetic field rotations in the solar wind at kinetic scales. Monthly Notices of the Royal Astronomical Society: Letters, 2015, 453, L64-L68.	3.3	18
59	First near-relativistic solar electron events observed by EPD onboard Solar Orbiter. Astronomy and Astrophysics, 2021, 656, L3.	5.1	16
60	Linear Stability in the Inner Heliosphere: Helios Re-evaluated. Astrophysical Journal, 2019, 887, 234.	4.5	16
61	Radial evolution of the April 2020 stealth coronal mass ejection between 0.8 and 1 AU. Astronomy and Astrophysics, 2021, 656, A1.	5.1	15
62	On the Transmission of Turbulent Structures across the Earthâ€™s Bow Shock. Astrophysical Journal, 2022, 933, 167.	4.5	15
63	Multi-spacecraft observations of the structure of the sheath of an interplanetary coronal mass ejection and related energetic ion enhancement. Astronomy and Astrophysics, 2021, 656, A8.	5.1	14
64	Active Region Contributions to the Solar Wind over Multiple Solar Cycles. Solar Physics, 2021, 296, 1.	2.5	14
65	Solar wind current sheets and deHoffmann-Teller analysis. First results from Solar Orbiter's DC electric field measurements. Astronomy and Astrophysics, 0, , .	5.1	13
66	Kinetic electrostatic waves and their association with current structures in the solar wind. Astronomy and Astrophysics, 2021, 656, A23.	5.1	12
67	Magnetic reconnection as a mechanism to produce multiple thermal proton populations and beams locally in the solar wind. Astronomy and Astrophysics, 2021, 656, A37.	5.1	12
68	Multiscale views of an AlfvÃ©nic slow solar wind: 3D velocity distribution functions observed by the Proton-Alpha Sensor of Solar Orbiter. Astronomy and Astrophysics, 2021, 656, A36.	5.1	12
69	Number density structures in the inner heliosphere. Astronomy and Astrophysics, 2018, 613, A62.	5.1	11
70	Flux Rope Merging and the Structure of Switchbacks in the Solar Wind. Astrophysical Journal, 2022, 925, 213.	4.5	11
71	Small-scale solitary wave pulses observed by the Ulysses magnetic field experiment. Journal of Geophysical Research, 2006, 111, .	3.3	10
72	Study of two interacting interplanetary coronal mass ejections encountered by Solar Orbiter during its first perihelion passage. Astronomy and Astrophysics, 2021, 656, A5.	5.1	9

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73	Plasma properties, switchback patches, and low Î±-particle abundance in slow AlfvÃ©nic coronal hole wind at 0.13 au. Monthly Notices of the Royal Astronomical Society, 2021, 508, 236-244.	4.4	9
74	Multi-spacecraft study of the solar wind at solar minimum: Dependence on latitude and transient outflows. Astronomy and Astrophysics, 2021, 652, A105.	5.1	9
75	First observations and performance of the RPW instrument on board the Solar Orbiter mission. Astronomy and Astrophysics, 2021, 656, A41.	5.1	9
76	Solar Orbiter observations of an ion-scale flux rope confined to a bifurcated solar wind current sheet. Astronomy and Astrophysics, 2021, 656, A27.	5.1	6
77	Predicting Large-scale Coronal Structure for Parker Solar Probe Using Open Source Software. Research Notes of the AAS, 2019, 3, 57.	0.7	6
78	High-cadence measurements of electron pitch-angle distributions from Solar Orbiter SWA-EAS burst mode operations. Astronomy and Astrophysics, 0, , .	5.1	5
79	Solar Orbiter observations of the structure of reconnection outflow layers in the solar wind. Astronomy and Astrophysics, 2021, 656, L8.	5.1	5
80	Analysis of multiscale structures at the quasi-perpendicular Venus bow shock. Astronomy and Astrophysics, 2022, 660, A64.	5.1	5
81	Cluster at the Bow Shock: Status and Outlook. Space Science Reviews, 2005, 118, 223-227.	8.1	4
82	Solar Orbiterâ€™s encounter with the tail of comet C/2019 Y4 (ATLAS): Magnetic field draping and cometary pick-up ion waves. Astronomy and Astrophysics, 2021, 656, A39.	5.1	4
83	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
84	Evidence for local particle acceleration in the first recurrent galactic cosmic ray depression observed by Solar Orbiter. Astronomy and Astrophysics, 2021, 656, L10.	5.1	2