Qiang Hu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

143
papers4,151
citations35
h-index60
g-index157
ext. papers4,886
ext. citations4.6
avg, IF5.7
L-index

#	Paper	IF	Citations
143	Small-scale Magnetic Flux Ropes and Their Properties Based on In Situ Measurements from the Parker Solar Probe. <i>Astrophysical Journal</i> , 2022 , 924, 43	4.7	3
142	Comparison of the Hall Magnetohydrodynamics and Magnetohydrodynamics Evolution of a Flaring Solar Active Region. <i>Astrophysical Journal</i> , 2022 , 925, 197	4.7	О
141	Data-driven modeling of solar coronal magnetic field evolution and eruptions <i>Innovation(China)</i> , 2022 , 3, 100236	17.8	1
140	On the Estimation of the SHARP Parameter MEANALP from AIA Images Using Deep Neural Networks. <i>Solar Physics</i> , 2021 , 296, 1	2.6	1
139	Small-scale Magnetic Flux Ropes with Field-aligned Flows via the PSP In Situ Observations. <i>Astrophysical Journal</i> , 2021 , 914, 108	4.7	5
138	Optimal Fitting of the Freidberg Solution to In Situ Spacecraft Measurements of Magnetic Clouds. <i>Solar Physics</i> , 2021 , 296, 1	2.6	О
137	Detection of small magnetic flux ropes from the third and fourth Parker Solar Probe encounters. <i>Astronomy and Astrophysics</i> , 2021 , 650, A12	5.1	15
136	The Inhomogeneity of Composition Along the Magnetic Cloud Axis. Frontiers in Physics, 2021, 9,	3.9	2
135	Parker Solar Probe Observations of AlfvEic Waves and Ion-cyclotron Waves in a Small-scale Flux Rope. <i>Astrophysical Journal Letters</i> , 2021 , 908, L19	7.9	2
134	On the Quasi-Three Dimensional Configuration of Magnetic Clouds. <i>Geophysical Research Letters</i> , 2021 , 48, e2020GL090630	4.9	2
133	Evidence of magnetic flux ropes downstream of the heliospheric termination shock. <i>Journal of Physics: Conference Series</i> , 2020 , 1620, 012027	0.3	
132	Effects of Radial Distances on Small-scale Magnetic Flux Ropes in the Solar Wind. <i>Astrophysical Journal</i> , 2020 , 894, 25	4.7	7
131	Identification of Magnetic Flux Ropes from Parker Solar Probe Observations during the First Encounter. <i>Astrophysical Journal, Supplement Series</i> , 2020 , 246, 26	8	38
130	Quantifying the Toroidal Flux of Preexisting Flux Ropes of Coronal Mass Ejections. <i>Astrophysical Journal</i> , 2020 , 889, 125	4.7	4
129	A New Method to Model Magnetic Cloud-driven Forbush Decreases: The 2016 August 2 Event. <i>Astrophysical Journal</i> , 2020 , 901, 21	4.7	2
128	How Does Magnetic Reconnection Drive the Early-stage Evolution of Coronal Mass Ejections?. <i>Astrophysical Journal</i> , 2020 , 893, 141	4.7	9
127	Small-scale Magnetic Flux Ropes in the First Two Parker Solar Probe Encounters. <i>Astrophysical Journal</i> , 2020 , 903, 76	4.7	13

(2019-2020)

126	Magnetohydrodynamic Simulation of Magnetic Null-point Reconnections and Coronal Dimmings during the X2.1 Flare in NOAA AR 11283. <i>Astrophysical Journal</i> , 2020 , 903, 129	4.7	13
125	Whether Small Flux Ropes and Magnetic Clouds Have the Same Origin: A Statistical Study of Small Flux Ropes in Different Types of Solar Wind. <i>Astrophysical Journal</i> , 2020 , 904, 122	4.7	2
124	Effects of Cowling Resistivity in the Weakly Ionized Chromosphere. <i>Astrophysical Journal Letters</i> , 2020 , 899, L4	7.9	4
123	Forecasting Solar Cycle 25 Using Deep Neural Networks. <i>Solar Physics</i> , 2020 , 295, 1	2.6	6
122	A data-driven MHD model of the weakly-ionized chromosphere. <i>Journal of Physics: Conference Series</i> , 2020 , 1620, 012026	0.3	
121	Determining the parameter for the linear force-free magnetic field model with multi-dipolar configurations using deep neural networks. <i>Astronomy and Computing</i> , 2019 , 26, 50-60	2.4	2
120	Evolution of a Magnetic Flux Rope toward Eruption. Astrophysical Journal, 2019, 871, 25	4.7	14
119	A Data-constrained Magnetohydrodynamic Simulation of Successive Events of Blowout Jet and C-class Flare in NOAA AR 12615. <i>Astrophysical Journal</i> , 2019 , 875, 10	4.7	14
118	Particle Acceleration at 5 au Associated with Turbulence and Small-scale Magnetic Flux Ropes. <i>Astrophysical Journal</i> , 2019 , 872, 4	4.7	38
117	Single-spacecraft Identification of Flux Tubes and Current Sheets in the Solar Wind. <i>Astrophysical Journal Letters</i> , 2019 , 881, L11	7.9	10
116	Analysis of Small-scale Magnetic Flux Ropes Covering the Whole Mission. <i>Astrophysical Journal</i> , 2019 , 881,	4.7	16
115	Current Sheets, Magnetic Islands, and Associated Particle Acceleration in the Solar Wind as Observed by Ulysses near the Ecliptic Plane. <i>Astrophysical Journal</i> , 2019 , 881, 116	4.7	19
114	Galactic Cosmic Rays Modulation in the Vicinity of Corotating Interaction Regions: Observations During the Last Two Solar Minima. <i>Astrophysical Journal</i> , 2019 , 882, 54	4.7	9
113	The Enhancement of the Energetic Particle Intensities in ICMEs. Astrophysical Journal, 2019, 885, 54	4.7	5
112	Godbillon-Vey helicity and magnetic helicity in magnetohydrodynamics. <i>Journal of Plasma Physics</i> , 2019 , 85,	2.7	5
111	Radial evolution of the properties of small-scale magnetic flux ropes in the solar wind. <i>Journal of Physics: Conference Series</i> , 2019 , 1332, 012005	0.3	
110	ACR Proton Acceleration Associated with Reconnection Processes beyond the Heliospheric Termination Shock. <i>Astrophysical Journal</i> , 2019 , 886, 144	4.7	26
109	Alfvilic velocity spikes and rotational flows in the near-Sun solar wind. <i>Nature</i> , 2019 , 576, 228-231	50.4	172

Formation and Eruption of an Active Region Sigmoid. II. Magnetohydrodynamic Simulation of a 94 4.7 11 Multistage Eruption. Astrophysical Journal, 2018, 866, 96 Comparison of Two Coronal Magnetic Field Models to Reconstruct a Sigmoidal Solar Active Region 93 13 4.7 with Coronal Loops. Astrophysical Journal, 2017, 842, 119 II. Transport of Nearly Incompressible Magnetohydrodynamic Turbulence from 1 to 75 au. 92 82 4.7 Astrophysical Journal, 2017, 841, 85 Nearly incompressible turbulence for different 2D and slab energy ratios. Journal of Physics: 91 0.3 Conference Series, **2017**, 900, 012001

(2016-2017)

90	The Three-part Structure of a Filament-unrelated Solar Coronal Mass Ejection. <i>Astrophysical Journal</i> , 2017 , 848, 21	4.7	10	
89	The GradBhafranov Reconstruction of Toroidal Magnetic Flux Ropes: Method Development and Benchmark Studies. <i>Solar Physics</i> , 2017 , 292, 1	2.6	6	
88	The Grad-Shafranov reconstruction in twenty years: 1996\(\textbf{Q}\) 016. Science China Earth Sciences, 2017 , 60, 1466-1494	4.6	37	
87	The GradBhafranov Reconstruction of Toroidal Magnetic Flux Ropes: First Applications. <i>Solar Physics</i> , 2017 , 292, 1	2.6	5	
86	Reconstruction of a Large-scale Pre-flare Coronal Current Sheet Associated with a Homologous X-shaped Flare. <i>Astrophysical Journal</i> , 2017 , 850, 8	4.7	13	
85	Buildup of a highly twisted magnetic flux rope during a solar eruption. <i>Nature Communications</i> , 2017 , 8, 1330	17.4	42	
84	Cosmic Ray Diffusion Tensor throughout the Heliosphere Derived from a Nearly Incompressible Magnetohydrodynamic Turbulence Model. <i>Astrophysical Journal</i> , 2017 , 849, 88	4.7	36	
83	Automated Detection of Small-scale Magnetic Flux Ropes and Their Association with Shocks. <i>Journal of Physics: Conference Series</i> , 2017 , 900, 012024	0.3	12	
82	The GradBhafranov Reconstruction of Toroidal Magnetic Flux Ropes: Method Development and Benchmark Studies 2017 , 541-563			
81	Hydromagnetic waves in a compressed-dipole field via field-aligned Klein © ordon equations. <i>Annales Geophysicae</i> , 2016 , 34, 473-484	2	1	
80	On the twists of interplanetary magnetic flux ropes observed at 1'AU. <i>Journal of Geophysical Research: Space Physics</i> , 2016 , 121, 9316-9339	2.6	52	
79	On the propagation of a geoeffective coronal mass ejection during 15🛮 7 March 2015. <i>Journal of Geophysical Research: Space Physics</i> , 2016 , 121, 7423-7434	2.6	31	
78	Rossby wave Green functions in an azimuthal wind. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2016 , 110, 224-258	1.4	1	
77	Solar Wind Electrons Alphas and Protons (SWEAP) Investigation: Design of the Solar Wind and Coronal Plasma Instrument Suite for Solar Probe Plus. <i>Space Science Reviews</i> , 2016 , 204, 131-186	7.5	257	
76	Observations and analysis of small-scale magnetic flux ropes in the solar wind. <i>Journal of Physics:</i> Conference Series, 2016 , 767, 012028	0.3	6	
75	GENESIS OF INTERPLANETARY INTERMITTENT TURBULENCE: A CASE STUDY OF ROPEROPE MAGNETIC RECONNECTION. <i>Astrophysical Journal</i> , 2016 , 832, 179	4.7	14	
74	A STATISTICAL STUDY OF THE AVERAGE IRON CHARGE STATE DISTRIBUTIONS INSIDE MAGNETIC CLOUDS FOR SOLAR CYCLE 23. <i>Astrophysical Journal, Supplement Series</i> , 2016 , 224, 27	8	22	
73	HOW DID A MAJOR CONFINED FLARE OCCUR IN SUPER SOLAR ACTIVE REGION 12192?. Astrophysical Journal, 2016 , 828, 62	4.7	48	

72	THE INTERACTION OF TURBULENCE WITH PARALLEL AND PERPENDICULAR SHOCKS: THEORY AND OBSERVATIONS AT 1 au. <i>Astrophysical Journal</i> , 2016 , 833, 218	4.7	12
71	Data-driven magnetohydrodynamic modelling of a flux-emerging active region leading to solar eruption. <i>Nature Communications</i> , 2016 , 7, 11522	17.4	89
70	MHD MODELING OF THE OUTER HELIOSPHERIC STRUCTURES AROUND THE HELIOPAUSE. Astrophysical Journal, 2015 , 809, 16	4.7	10
69	THE TRANSPORT OF LOW-FREQUENCY TURBULENCE IN ASTROPHYSICAL FLOWS. II. SOLUTIONS FOR THE SUPER-ALFVNIC SOLAR WIND. <i>Astrophysical Journal</i> , 2015 , 805, 63	4.7	74
68	Magnetic field line lengths inside interplanetary magnetic flux ropes. <i>Journal of Geophysical Research: Space Physics</i> , 2015 , 120, 5266-5283	2.6	37
67	Preface to VarSITI Special Section. <i>Journal of Geophysical Research: Space Physics</i> , 2015 , 120, 10,137-10,	13.86	2
66	The transport of low-frequency turbulence in the super-AlfvBic solar wind. <i>Journal of Physics:</i> Conference Series, 2015 , 642, 012001	0.3	19
65	EVIDENCE OF THE SOLAR EUV HOT CHANNEL AS A MAGNETIC FLUX ROPE FROM REMOTE-SENSING AND IN SITU OBSERVATIONS. <i>Astrophysical Journal Letters</i> , 2015 , 808, L15	7.9	24
64	Determining the 3D Structure of the Corona Using Vertical Height Constraints on Observed Active Region Loops. <i>Solar Physics</i> , 2014 , 289, 3703-3721	2.6	7
63	Reconstruction of an evolving magnetic flux rope in the solar wind: Decomposing spatial and temporal variations from single-spacecraft data. <i>Journal of Geophysical Research: Space Physics</i> , 2014 , 119, 97-114	2.6	9
62	STRUCTURES OF INTERPLANETARY MAGNETIC FLUX ROPES AND COMPARISON WITH THEIR SOLAR SOURCES. <i>Astrophysical Journal</i> , 2014 , 793, 53	4.7	77
61	TURBULENCE TRANSPORT MODELING OF THE TEMPORAL OUTER HELIOSPHERE. <i>Astrophysical Journal</i> , 2014 , 793, 52	4.7	34
60	NONLINEAR FORCE-FREE FIELD EXTRAPOLATION OF A CORONAL MAGNETIC FLUX ROPE SUPPORTING A LARGE-SCALE SOLAR FILAMENT FROM A PHOTOSPHERIC VECTOR MAGNETOGRAM. <i>Astrophysical Journal Letters</i> , 2014 , 786, L16	7.9	47
59	FORMATION AND ERUPTION OF AN ACTIVE REGION SIGMOID. I. A STUDY BY NONLINEAR FORCE-FREE FIELD MODELING. <i>Astrophysical Journal</i> , 2014 , 780, 55	4.7	77
58	A Rapid, Manual Method to Map Coronal-Loop Structures of an Active Region Using Cubic Bier Curves and Its Applications to Misalignment Angle Analysis. <i>Solar Physics</i> , 2014 , 289, 847-865	2.6	7
57	Interplanetary and geomagnetic consequences of 5 January 2005 CMEs associated with eruptive filaments. <i>Journal of Geophysical Research: Space Physics</i> , 2013 , 118, 3954-3967	2.6	19
56	Effect of Electron Pressure on the GradBhafranov Reconstruction of Interplanetary Coronal Mass Ejections. <i>Solar Physics</i> , 2013 , 284, 275-291	2.6	13
55	MAGNETOHYDRODYNAMIC SIMULATION OF A SIGMOID ERUPTION OF ACTIVE REGION 11283. Astrophysical Journal Letters, 2013 , 771, L30	7.9	101

54	A STUDY OF FAST FLARELESS CORONAL MASS EJECTIONS. Astrophysical Journal, 2013, 773, 129	4.7	21	
53	Reconstruction of magnetic clouds from in-situ spacecraft measurements and intercomparison with their solar sources. <i>Proceedings of the International Astronomical Union</i> , 2013 , 8, 269-272	0.1		
52	Coronal Loop Mapping to Infer the Best Magnetic Field Models for Active Region Prominences. Proceedings of the International Astronomical Union, 2013 , 8, 416-417	0.1		
51	Evolution of the 5 January 2005 CMEs associated with eruptive filaments in inner heliosphere. <i>Proceedings of the International Astronomical Union</i> , 2013 , 8, 491-492	0.1	1	
50	Klein-Gordon equations for horizontal transverse oscillations in two-dimensional coronal loops. <i>Astronomy and Astrophysics</i> , 2012 , 541, A53	5.1	4	
49	THE TRANSPORT OF DENSITY FLUCTUATIONS THROUGHOUT THE HELIOSPHERE. <i>Astrophysical Journal</i> , 2012 , 756, 21	4.7	14	
48	STUDY OF THE THREE-DIMENSIONAL CORONAL MAGNETIC FIELD OF ACTIVE REGION 11117 AROUND THE TIME OF A CONFINED FLARE USING A DATA-DRIVEN CESE-MHD MODEL. <i>Astrophysical Journal</i> , 2012 , 759, 85	4.7	32	
47	Numerical modeling of transient phenomena in the distant solar wind and in the heliosheath 2012,		2	
46	Toroidal hydromagnetic waves in an axi-symmetric magnetic field. <i>Journal of Geophysical Research</i> , 2012 , 117, n/a-n/a		4	
45	A ROLE OF MAGNETOSONIC PULSES ON VARIATIONS OF VOYAGER-1 MeV ELECTRON INTENSITY IN THE HELIOSHEATH. <i>Astrophysical Journal Letters</i> , 2012 , 757, L2	7.9	13	
44	Effect of current sheets on the solar wind magnetic field power spectrum from the Ulysses observation: from Kraichnan to Kolmogorov scaling. <i>Physical Review Letters</i> , 2011 , 106, 125001	7.4	44	
43	Realistic and time-varying outer heliospheric modelling. <i>Monthly Notices of the Royal Astronomical Society</i> , 2011 , 416, 1475-1485	4.3	93	
42	Klein-Gordon equations for toroidal hydromagnetic waves in an axi-symmetric field. <i>Annales Geophysicae</i> , 2010 , 28, 737-742	2	5	
41	Self-organization in a driven dissipative plasma system. <i>Journal of Plasma Physics</i> , 2010 , 76, 107-116	2.7	1	
40	ALFV® SIMPLE WAVES: EULER POTENTIALS AND MAGNETIC HELICITY. <i>Astrophysical Journal</i> , 2010 , 725, 2128-2151	4.7	13	
39	Homotopy formulas for the magnetic vector potential and magnetic helicity: The Parker spiral interplanetary magnetic field and magnetic flux ropes. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-r	n/a	24	
38	Multipoint connectivity analysis of the May 2007 solar energetic particle events. <i>Journal of Geophysical Research</i> , 2010 , 115, n/a-n/a		7	
37	The solar active region magnetic field and energetics. <i>Proceedings of the International Astronomical Union</i> , 2010 , 6, 369-373	0.1		

36	Non-force-free extrapolation of solar coronal magnetic field using vector magnetograms. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2010 , 72, 219-223	2	26
35	Reconstruction of a large-scale reconnection exhaust structure in the solar wind. <i>Annales Geophysicae</i> , 2009 , 27, 807-822	2	18
34	Minimum dissipative relaxed states applied to laboratory and space plasmas. <i>Journal of Plasma Physics</i> , 2009 , 75, 273-287	2.7	4
33	THE INTERACTION OF ALFVN WAVES WITH PERPENDICULAR SHOCKS. <i>Astrophysical Journal</i> , 2009 , 706, 687-692	4.7	27
32	Automated shock detection and analysis algorithm for space weather application. <i>Space Weather</i> , 2008 , 6, n/a-n/a	3.7	20
31	Modeling a mixed SEP event with the PATH model: December 13, 2006. <i>AIP Conference Proceedings</i> , 2008 ,	0	4
30	The Interaction of Alfvil Waves and Perpendicular Shocks. AIP Conference Proceedings, 2008,	0	2
29	Theory and simulations of principle of minimum dissipation rate. <i>Physics of Plasmas</i> , 2008 , 15, 012306	2.1	11
28	A Practical Approach to Coronal Magnetic Field Extrapolation Based on the Principle of Minimum Dissipation Rate. <i>Astrophysical Journal</i> , 2008 , 679, 848-853	4.7	30
27	An Improved Approach to Non-Force-Free Coronal Magnetic Field Extrapolation. <i>Solar Physics</i> , 2008 , 247, 87-101	2.6	37
26	Interaction of positive and negative energy waves in a magnetized bi-ion plasma with differential ion streaming. <i>Journal of Plasma Physics</i> , 2008 , 74, 345-352	2.7	
25	Propagation and evolution of a magnetic cloud from ACE to Ulysses. <i>Journal of Geophysical Research</i> , 2007 , 112, n/a-n/a		30
24	Orientations of LASCO Halo CMEs and their connection to the flux rope structure of interplanetary CMEs. <i>Advances in Space Research</i> , 2007 , 40, 1821-1826	2.4	34
23	On the Magnetic Flux Budget in Low-Corona Magnetic Reconnection and Interplanetary Coronal Mass Ejections. <i>Astrophysical Journal</i> , 2007 , 659, 758-772	4.7	210
22	A Forecast of the Heliospheric Termination-Shock Position by Three-dimensional MHD Simulations. <i>Astrophysical Journal</i> , 2007 , 670, L139-L142	4.7	56
21	Suprathermal electron 90° pitch angle depletions at reverse shocks in the solar wind. <i>Journal of Geophysical Research</i> , 2006 , 111,		16
20	Particle acceleration at perpendicular shock waves: Model and observations. <i>Journal of Geophysical Research</i> , 2006 , 111,		145
19	A new approach to modeling non-force free coronal magnetic field. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9	12

18	Constraints on the global structure of magnetic clouds: Transverse size and curvature. <i>Journal of Geophysical Research</i> , 2006 , 111,		125
17	On the magnetic topology of October/November 2003 events. <i>Journal of Geophysical Research</i> , 2005 , 110,		26
16	Structure of magnetic fields in NOAA active regions 0486 and 0501 and in the associated interplanetary ejecta. <i>Space Weather</i> , 2005 , 3, n/a-n/a	3.7	39
15	Calculation of magnetic helicity of cylindrical flux rope. <i>Geophysical Research Letters</i> , 2005 , 32, n/a-n/a	4.9	9
14	The Energetic Storm Particle Event on 2003 October 24: A Test of Diffusive Shock Acceleration Theory. <i>AIP Conference Proceedings</i> , 2005 ,	O	2
13	Fitting flux ropes to a global MHD solution: a comparison of techniques. <i>Journal of Atmospheric and Solar-Terrestrial Physics</i> , 2004 , 66, 1321-1331	2	112
12	Multiple flux rope magnetic ejecta in the solar wind. Journal of Geophysical Research, 2004, 109,		55
11	Extremely high speed solar wind: 29B0 October 2003. <i>Journal of Geophysical Research</i> , 2004 , 109,		169
10	Magnetic Reconnection Phenomena In Interplanetary Space. Space Science Reviews, 2003, 107, 107-110	7.5	12
9	Double flux-rope magnetic cloud in the solar wind at 1 AU. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	26
8	Reconstruction of two-dimensional structures in the magnetopause: Method improvements. Journal of Geophysical Research, 2003 , 108, SMP 9-1		60
7	Signs of magnetic helicity in interplanetary coronal mass ejections and associated prominences: Case study. <i>Journal of Geophysical Research</i> , 2003 , 108,		29
6	Reconstruction of magnetic clouds in the solar wind: Orientations and configurations. <i>Journal of Geophysical Research</i> , 2002 , 107, SSH 10-1		222
5	Reconstruction of magnetic flux ropes in the solar wind. <i>Geophysical Research Letters</i> , 2001 , 28, 467-470	04.9	130
4	Magnetopause transects from two spacecraft: A comparison. <i>Geophysical Research Letters</i> , 2000 , 27, 1443-1446	4.9	25
3	Magnetic reconnection events in the interplanetary space. <i>Science in China Series D: Earth Sciences</i> , 1997 , 40, 463-471		5
2	Turbulence and wave transmission at an ICME-driven shock observed by the Solar Orbiter and Wind. <i>Astronomy and Astrophysics</i> ,	5.1	4
1	A fundamental mechanism of solar eruption initiation. <i>Nature Astronomy</i> ,	12.1	13