

Michael S Wheatland

List of Publications by Year in descending order

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114
papers

3,847
citations

145106

33
h-index

139680

61
g-index

114
all docs

114
docs citations

114
times ranked

1828
citing authors

#	ARTICLE	IF	CITATIONS
1	Editorial Appreciation. Solar Physics, 2022, 297, 1.	1.0	0
2	Self-Stabilization of Light Sails by Damped Internal Degrees of Freedom. Physical Review Applied, 2022, 17, .	1.5	7
3	Editorial Appreciation. Solar Physics, 2021, 296, 1.	1.0	0
4	10.1119/10.0003380.1. , 2021, , .		0
5	The mobile phone as a free-rotation laboratory. American Journal of Physics, 2021, 89, 342-348.	0.3	9
6	The ASKAP Variables and Slow Transients (VAST) Pilot Survey. Publications of the Astronomical Society of Australia, 2021, 38, .	1.3	26
7	Self-consistent Nonlinear Force-Free Field Reconstruction from Weighted Boundary Conditions. Solar Physics, 2020, 295, 1.	1.0	3
8	Reconstructing Highly-twisted Magnetic Fields. Solar Physics, 2020, 295, 1.	1.0	1
9	Editorial Appreciation. Solar Physics, 2020, 295, 1.	1.0	0
10	Relative Magnetic Helicity Based on a Periodic Potential Field. Astrophysical Journal, 2020, 894, 151.	1.6	3
11	On Measuring Divergence for Magnetic Field Modeling. Astrophysical Journal, 2020, 900, 136.	1.6	7
12	A Flare-type IV Burst Event from Proxima Centauri and Implications for Space Weather. Astrophysical Journal, 2020, 905, 23.	1.6	37
13	10.1119/10.0000905.1. , 2020, , .		0
14	Rolling along a square path: The dynamics of biased balls. American Journal of Physics, 2020, 88, 465-474.	0.3	1
15	Mapping Magnetic Field Lines for an Accelerating Solar Wind. Solar Physics, 2019, 294, 1.	1.0	3
16	Energy Balance in Avalanche Models for Solar Flares. Astrophysical Journal Letters, 2019, 883, L20.	3.0	11
17	Flare Reconnection-driven Magnetic Field and Lorentz Force Variations at the Sun's Surface. Astrophysical Journal, 2019, 877, 67.	1.6	18
18	Editorial Appreciation. Solar Physics, 2019, 294, 1.	1.0	0

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19	Comparisons Between the Field Lines Using an Accelerating and a Constant Solar Wind model. Journal of Physics: Conference Series, 2019, 1332, 012015.	0.3	0
20	A Generalized Equatorial Model for the Accelerating Solar Wind. Journal of Geophysical Research: Space Physics, 2018, 123, 1061-1085.	0.8	9
21	Editorial Appreciation. Solar Physics, 2018, 293, 1.	1.0	0
22	Very narrow coronal mass ejections producing solar energetic particles. Astronomy and Astrophysics, 2018, 619, A34.	2.1	4
23	A Check on the Validity of Magnetic Field Reconstructions. Solar Physics, 2018, 293, 1.	1.0	3
24	Nonlinear Force-free Modeling of Flare-related Magnetic Field Changes at the Photosphere and Chromosphere. Astrophysical Journal, 2018, 865, 146.	1.6	5
25	Photospheric Response to a Flare. Astrophysical Journal, 2018, 864, 159.	1.6	6
26	Principle of Minimum Energy in Magnetic Reconnection in a Self-organized Critical Model for Solar Flares. Astrophysical Journal, 2018, 859, 41.	1.6	16
27	PREDICTION OF SOLAR FLARES USING UNIQUE SIGNATURES OF MAGNETIC FIELD IMAGES. Astrophysical Journal, 2017, 834, 11.	1.6	37
28	SUNSPOT AND STARSPOT LIFETIMES IN A TURBULENT EROSION MODEL. Astrophysical Journal, 2017, 834, 108.	1.6	1
29	Editorial Appreciation. Solar Physics, 2017, 292, 1.	1.0	0
30	Editorial: Last Print Issue of Solar Physics. Solar Physics, 2017, 292, 1.	1.0	0
31	A Study of External Magnetic Reconnection that Triggers a Solar Eruption. Astrophysical Journal Letters, 2017, 851, L1.	3.0	10
32	A COMPARISON OF FLARE FORECASTING METHODS. I. RESULTS FROM THE "ALL-CLEAR" WORKSHOP. Astrophysical Journal, 2016, 829, 89.	1.6	162
33	Is Cyclotron Maser Emission in Solar Flares Driven by a Horseshoe Distribution?. Solar Physics, 2016, 291, 3637-3658.	1.0	15
34	Editorial: 50 Years of Solar Physics. Solar Physics, 2016, 291, 3461-3465.	1.0	0
35	THE INFLUENCE OF SPATIAL RESOLUTION ON NONLINEAR FORCE-FREE MODELING. Astrophysical Journal, 2015, 811, 107.	1.6	78
36	Nonlinear force-free modeling of magnetic fields in flare-productive active regions. Proceedings of the International Astronomical Union, 2015, 11, 167-174.	0.0	0

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37	MODELING SUNSPOT AND STARSPOT DECAY BY TURBULENT EROSION. <i>Astrophysical Journal</i> , 2015, 800, 130.	1.6	13
38	Estimating Electric Current Densities in Solar Active Regions. <i>Solar Physics</i> , 2015, 290, 1147-1157.	1.0	4
39	USING CORONAL LOOPS TO RECONSTRUCT THE MAGNETIC FIELD OF AN ACTIVE REGION BEFORE AND AFTER A MAJOR FLARE. <i>Astrophysical Journal</i> , 2014, 783, 102.	1.6	57
40	Bulk Energization of Electrons in Solar Flares by Alfvén Waves. <i>Solar Physics</i> , 2014, 289, 881-897.	1.0	10
41	Nonlinear Force-Free Modeling of the Corona in Spherical Coordinates. <i>Solar Physics</i> , 2014, 289, 1153-1171.	1.0	17
42	A Magnetostatic Grad-Rubin Code for Coronal Magnetic Field Extrapolations. <i>Solar Physics</i> , 2013, 282, 283-302.	1.0	20
43	Origin and Use of the Laplace Distribution in Daily Sunspot Numbers. <i>Solar Physics</i> , 2013, 282, 565-578.	1.0	3
44	Transfer of Energy, Potential, and Current by Alfvén Waves in Solar Flares. <i>Solar Physics</i> , 2013, 288, 223-240.	1.0	7
45	The state of nonlinear force-free magnetic field extrapolation. <i>Journal of Physics: Conference Series</i> , 2013, 440, 012037.	0.3	4
46	Modeling a falling slinky. <i>American Journal of Physics</i> , 2012, 80, 1051-1060.	0.3	18
47	GUIDING NONLINEAR FORCE-FREE MODELING USING CORONAL OBSERVATIONS: FIRST RESULTS USING A QUASI-GRAD-RUBIN SCHEME. <i>Astrophysical Journal</i> , 2012, 756, 153.	1.6	54
48	The Free Energy of NOAA Solar Active Region AR 11029. <i>Solar Physics</i> , 2012, 276, 133-160.	1.0	18
49	A Bayesian Approach to Forecasting Solar Cycles Using a Fokker-Planck Equation. <i>Solar Physics</i> , 2012, 276, 363-381.	1.0	9
50	MODELING THE SUNSPOT NUMBER DISTRIBUTION WITH A FOKKER-PLANCK EQUATION. <i>Astrophysical Journal</i> , 2011, 732, 5.	1.6	10
51	ACHIEVING SELF-CONSISTENT NONLINEAR FORCE-FREE MODELING OF SOLAR ACTIVE REGIONS. <i>Astrophysical Journal</i> , 2011, 728, 112.	1.6	30
52	Alfvén solitons in a Fermionic quantum plasma. <i>Physical Review E</i> , 2011, 83, 066407.	0.8	48
53	A current sheet traced from the Sun to interplanetary space. <i>Astronomy and Astrophysics</i> , 2011, 525, A156.	2.1	7
54	ON THE BRIGHTNESS AND WAITING-TIME DISTRIBUTIONS OF A TYPE III RADIO STORM OBSERVED BY STEREO/WAVES. <i>Astrophysical Journal Letters</i> , 2010, 708, L95-L99.	3.0	19

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55	EVIDENCE FOR DEPARTURE FROM A POWER-LAW FLARE SIZE DISTRIBUTION FOR A SMALL SOLAR ACTIVE REGION. <i>Astrophysical Journal</i> , 2010, 710, 1324-1334.	1.6	24
56	Time-Dependent Stochastic Modeling of Solar Active Region Energy. <i>Solar Physics</i> , 2010, 266, 301-321.	1.0	5
57	Bayesian Data Analysis. , 2010, , .		1
58	A SELF-CONSISTENT NONLINEAR FORCE-FREE SOLUTION FOR A SOLAR ACTIVE REGION MAGNETIC FIELD. <i>Astrophysical Journal</i> , 2009, 700, L88-L91.	1.6	55
59	A CRITICAL ASSESSMENT OF NONLINEAR FORCE-FREE FIELD MODELING OF THE SOLAR CORONA FOR ACTIVE REGION 10953. <i>Astrophysical Journal</i> , 2009, 696, 1780-1791.	1.6	318
60	Monte Carlo Simulation of Solar Active-Region Energy. <i>Solar Physics</i> , 2009, 255, 211-227.	1.0	10
61	Dynamics of a double pendulum with distributed mass. <i>American Journal of Physics</i> , 2009, 77, 216-223.	0.3	39
62	Nonlinear Force-Free Modeling of Coronal Magnetic Fields. II. Modeling a Filament Arcade and Simulated Chromospheric and Photospheric Vector Fields. <i>Solar Physics</i> , 2008, 247, 269-299.	1.0	186
63	Analysis and Packaging of Radiochemical Solar Neutrino Data: A Bayesian Approach. <i>Solar Physics</i> , 2008, 247, 217-224.	1.0	1
64	Nonlinear Force-Free Field Modeling of a Solar Active Region around the Time of a Major Flare and Coronal Mass Ejection. <i>Astrophysical Journal</i> , 2008, 675, 1637-1644.	1.6	254
65	The Energetics of a Flaring Solar Active Region and Observed Flare Statistics. <i>Astrophysical Journal</i> , 2008, 679, 1621-1628.	1.6	27
66	Calculating and Testing Nonlinear Force-Free Fields. <i>Solar Physics</i> , 2007, 245, 251-262.	1.0	43
67	Advances in Geosciences. , 2007, , .		1
68	RECONSTRUCTION OF NONLINEAR FORCE-FREE FIELDS AND SOLAR FLARE PREDICTION. , 2007, , 123-137.		0
69	An Improved Virial Estimate of Solar Active Region Energy. <i>Astrophysical Journal</i> , 2006, 636, 1151-1158.	1.6	15
70	Quantifying the Performance of Force-Free Extrapolation Methods Using Known Solutions. <i>Astrophysical Journal</i> , 2006, 641, 1188-1196.	1.6	8
71	Nonlinear Force-Free Modeling of Coronal Magnetic Fields Part I: A Quantitative Comparison of Methods. <i>Solar Physics</i> , 2006, 235, 161-190.	1.0	286
72	A Rate-Independent Test for Solar Flare Sympathy. <i>Solar Physics</i> , 2006, 236, 313-324.	1.0	7

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73	Including Flare Sympathy in a Model for Solar Flare Statistics. <i>Solar Physics</i> , 2006, 238, 73-86.	1.0	29
74	A Fast Current-Field Iteration Method for Calculating Nonlinear Force-Free Fields. <i>Solar Physics</i> , 2006, 238, 29-39.	1.0	42
75	Initial Test of a Bayesian Approach to Solar Flare Prediction. <i>Publications of the Astronomical Society of Australia</i> , 2005, 22, 153-156.	1.3	10
76	Power-spectrum analyses of Super-Kamiokande solar neutrino data: Variability and its implications for solar physics and neutrino physics. <i>Physical Review D</i> , 2005, 72, .	1.6	36
77	A Simple Dynamical Model for Filament Formation in the Solar Corona. <i>Astrophysical Journal</i> , 2005, 630, 587-595.	1.6	29
78	Combined and Comparative Analysis of Power Spectra. <i>Solar Physics</i> , 2005, 227, 137-153.	1.0	24
79	A statistical solar flare forecast method. <i>Space Weather</i> , 2005, 3, n/a-n/a.	1.3	66
80	Testing Circuit Models for the Energies of Coronal Magnetic Field Configurations. <i>Solar Physics</i> , 2004, 219, 109-123.	1.0	3
81	Energy Balance in the Corona over the 22 Year Solar Cycle. <i>Solar Physics</i> , 2004, 219, 265-277.	1.0	2
82	Parallel Construction of Nonlinear Force-Free Fields. <i>Solar Physics</i> , 2004, 222, 247-264.	1.0	36
83	A Bayesian Approach to Solar Flare Prediction. <i>Astrophysical Journal</i> , 2004, 609, 1134-1139.	1.6	82
84	The Coronal Mass Ejection Waiting-Time Distribution. <i>Solar Physics</i> , 2003, 214, 361-373.	1.0	44
85	Toward a Reconnection Model for Solar Flare Statistics. <i>Astrophysical Journal</i> , 2003, 595, 458-464.	1.6	12
86	Distribution of Flare Energies Based on Independent Reconnecting Structures. <i>Solar Physics</i> , 2002, 208, 33-42.	1.0	10
87	Understanding Solar Flare Waiting-Time Distributions. <i>Solar Physics</i> , 2002, 211, 255-274.	1.0	71
88	Interpretation of Statistical Flare Data using Magnetic Reconnection Models. <i>Solar Physics</i> , 2002, 211, 275-287.	1.0	7
89	A Test to Confirm the Source of Energy for Solar Flares. <i>Publications of the Astronomical Society of Australia</i> , 2001, 18, 351-354.	1.3	3
90	Metastable Magnetic Configurations and Their Significance for Solar Eruptive Events. <i>Astrophysical Journal</i> , 2001, 548, 492-496.	1.6	62

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91	Modeling the Rate of Occurrence of Solar Flares. <i>Astrophysical Journal</i> , 2001, 550, L109-L112.	1.6	9
92	YOHKOH/HXT EVIDENCE FOR A HYPERHOT LOOP-TOP SOURCE IN THE PRE-IMPULSIVE PHASE OF A LOOP FLARE. <i>Solar Physics</i> , 2001, 202, 117-130.	1.0	7
93	Rates of Flaring in Individual Active Regions. <i>Solar Physics</i> , 2001, 203, 87-106.	1.0	58
94	Energy Balance in the Flaring Solar Corona. <i>Astrophysical Journal</i> , 2001, 557, 332-336.	1.6	30
95	DO SOLAR FLARES EXHIBIT AN INTERVALâ€“SIZE RELATIONSHIP?. <i>Solar Physics</i> , 2000, 191, 381-389.	1.0	32
96	Flare Frequencyâ€“Size Distributions for Individual Active Regions. <i>Astrophysical Journal</i> , 2000, 532, 1209-1214.	1.6	33
97	Are Electric Currents in Solar Active Regions Neutralized?. <i>Astrophysical Journal</i> , 2000, 532, 616-621.	1.6	47
98	An Optimization Approach to Reconstructing Forceâ€“free Fields. <i>Astrophysical Journal</i> , 2000, 540, 1150-1155.	1.6	393
99	The Origin of the Solar Flare Waiting-Time Distribution. <i>Astrophysical Journal</i> , 2000, 536, L109-L112.	1.6	148
100	A Better Linear Forceâ€“free Field. <i>Astrophysical Journal</i> , 1999, 518, 948-953.	1.6	17
101	Rotational Signature and Possible [CLC][ITAL]r[/ITAL][[/CLC]-Mode Signature in the GALLEX Solar Neutrino Data. <i>Astrophysical Journal</i> , 1999, 523, L177-L180.	1.6	45
102	The Waitingâ€“Time Distribution of Solar Flare Hard Xâ€“Ray Bursts. <i>Astrophysical Journal</i> , 1998, 509, 448-455.	1.6	124
103	Flare Frequency Distributions Based on a Master Equation. <i>Astrophysical Journal</i> , 1998, 494, 858-863.	1.6	23
104	Apparent Latitudinal Modulation of the Solar Neutrino Flux. <i>Astrophysical Journal</i> , 1998, 507, 978-983.	1.6	18
105	Search for Periodicities in the Homestake Solar Neutrino Data. <i>Astrophysical Journal</i> , 1997, 491, 409-413.	1.6	45
106	Coronal Heating and the Vertical Temperature Structure of the Quiet Corona. <i>Astrophysical Journal</i> , 1997, 482, 510-518.	1.6	37
107	[ITAL]Yokhoh[/ITAL] Soft X-Ray Telescope Images of the Diffuse Solar Corona. <i>Astrophysical Journal</i> , 1996, 461, .	1.6	38
108	Interpretation of SXT Data Concerning the Diffuse Corona. , 1996, , 417-418.		2

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109	Avalanche Models of Solar Flares and the Distribution of Active Regions. <i>Astrophysical Journal</i> , 1996, 471, 1044-1048.	1.6	18
110	Energy release in a prominence-loaded flaring loop. <i>Solar Physics</i> , 1995, 159, 137-141.	1.0	6
111	Interpreting Yohkoh hard and soft X-ray flare observations. <i>Solar Physics</i> , 1995, 158, 283-299.	1.0	44
112	Alfvénic Fronts and the turning-off of the Energy Release in Solar Flares. <i>Publications of the Astronomical Society of Australia</i> , 1994, 11, 25-27.	1.3	3
113	Cross-field Current Closure Below the Solar Photosphere. <i>Australian Journal of Physics</i> , 1994, 47, 361.	0.6	2
114	MODELLING THE CORONAL MAGNETIC FIELD USING HINODE (AND FUTURE) DATA. , 0, , 327-338.		0