

Matthew Baring

List of Publications by Year in descending order

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113
papers

6,638
citations

71102

41
h-index

60623

81
g-index

116
all docs

116
docs citations

116
times ranked

4654
citing authors

#	ARTICLE	IF	CITATIONS
1	Pulse Peak Migration during the Outburst Decay of the Magnetar SGR 1830-0645: Crustal Motion and Magnetospheric Untwisting. <i>Astrophysical Journal Letters</i> , 2022, 924, L27.	8.3	12
2	X-Ray Burst and Persistent Emission Properties of the Magnetar SGR 1830-0645 in Outburst. <i>Astrophysical Journal</i> , 2022, 924, 136.	4.5	5
3	Intensity and Polarization Characteristics of Extended Neutron Star Surface Regions. <i>Astrophysical Journal</i> , 2022, 928, 82.	4.5	2
4	Identification of an X-Ray Pulsar in the BeXRB System IGR J18219+1347. <i>Astrophysical Journal</i> , 2022, 927, 139.	4.5	5
5	Rapid spectral variability of a giant flare from a magnetar in NGC 253. <i>Nature</i> , 2021, 589, 207-210.	27.8	36
6	Broadband X-ray burst spectroscopy of the fast-radio-burst-emitting Galactic magnetar. <i>Nature Astronomy</i> , 2021, 5, 408-413.	10.1	31
7	Fermi/GBM Observations of the SGR J1935+2154 Burst Forest. <i>Astrophysical Journal Letters</i> , 2021, 916, L7.	8.3	7
8	Swift/XRT Deep Galactic Plane Survey Discovery of a New Intermediate Polar Cataclysmic Variable, Swift J183920.1-045350. <i>Astrophysical Journal</i> , 2021, 923, 243.	4.5	3
9	Polarized radiation transfer in neutron star surface layers. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 500, 5369-5392.	4.4	8
10	The Fast Radio Burst Luminosity Function and Death Line in the Low-twist Magnetar Model. <i>Astrophysical Journal</i> , 2020, 891, 82.	4.5	43
11	A Radiatively Quiet Glitch and Anti-glitch in the Magnetar 1E 2259+586. <i>Astrophysical Journal Letters</i> , 2020, 896, L42.	8.3	13
12	X-Ray through Very High Energy Intrabinary Shock Emission from Black Widows and Redbacks. <i>Astrophysical Journal</i> , 2020, 904, 91.	4.5	18
13	Simultaneous Magnetic Polar Cap Heating during a Flaring Episode from the Magnetar 1RXS J170849.0-400910. <i>Astrophysical Journal Letters</i> , 2020, 889, L27.	8.3	7
14	Fermi/GBM View of the 2019 and 2020 Burst Active Episodes of SGR J1935+2154. <i>Astrophysical Journal Letters</i> , 2020, 902, L43.	8.3	37
15	NICER View of the 2020 Burst Storm and Persistent Emission of SGR 1935+2154. <i>Astrophysical Journal Letters</i> , 2020, 904, L21.	8.3	53
16	Persistent Emission Properties of SGR J1935+2154 during Its 2020 Active Episode. <i>Astrophysical Journal Letters</i> , 2020, 905, L31.	8.3	5
17	Opacities for photon splitting and pair creation in neutron star magnetospheres. <i>Monthly Notices of the Royal Astronomical Society</i> , 2019, 486, 3327-3349.	4.4	14
18	Resonant Inverse Compton Scattering Spectra from Highly Magnetized Neutron Stars. <i>Astrophysical Journal</i> , 2018, 854, 98.	4.5	37

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19	Ultra-bright and maybe ludicrously magnetic. <i>Nature Astronomy</i> , 2018, 2, 282-283.	10.1	1
20	Constraining Relativistic Bow Shock Properties in Rotation-powered Millisecond Pulsar Binaries. <i>Astrophysical Journal</i> , 2017, 839, 80.	4.5	47
21	Probing acceleration and turbulence at relativistic shocks in blazar jets. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 464, 4875-4894.	4.4	53
22	X-Ray and Radio Observations of the Magnetar SGR J1935+2154 during Its 2014, 2015, and 2016 Outbursts. <i>Astrophysical Journal</i> , 2017, 847, 85.	4.5	56
23	Hard Spectral Tails in Magnetars. <i>Proceedings of the International Astronomical Union</i> , 2017, 13, 108-111.	0.0	0
24	X-ray Synchrotron Polarization from Turbulent Plasmas in Supernova Remnants. <i>Proceedings of the International Astronomical Union</i> , 2017, 12, 242-247.	0.0	0
25	The Sleeping Monster: NuSTAR Observations of SGR 1806â€“20, 11 Years After the Giant Flare. <i>Astrophysical Journal</i> , 2017, 851, 17.	4.5	28
26	Hard X-ray quiescent emission in magnetars via resonant Compton upscattering. <i>Journal of Physics: Conference Series</i> , 2017, 932, 012021.	0.4	2
27	New limits on the dark matter lifetime from dwarf spheroidal galaxies using Fermi-LAT. <i>Physical Review D</i> , 2016, 93, .	4.7	48
28	Radiative transfer simulations of magnetar flare beaming. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 461, 877-891.	4.4	17
29	THE WIND NEBULA AROUND MAGNETAR SWIFT J1834.9â€“0846. <i>Astrophysical Journal</i> , 2016, 824, 138.	4.5	50
30	X-ray polarimetry with the Polarization Spectroscopic Telescope Array (PolSTAR). <i>Astroparticle Physics</i> , 2016, 75, 8-28.	4.3	42
31	Development of an interpretive simulation tool for the proton radiography technique. <i>Review of Scientific Instruments</i> , 2015, 86, 033302.	1.3	15
32	THE FIVE YEAR <i>FERMI</i> /GBM MAGNETAR BURST CATALOG. <i>Astrophysical Journal, Supplement Series</i> , 2015, 218, 11.	7.7	45
33	QUASI-PERIODIC OSCILLATIONS IN SHORT RECURRING BURSTS OF THE SOFT GAMMA REPEATER J1550â€“5418. <i>Astrophysical Journal</i> , 2014, 787, 128.	4.5	48
34	MAGNETIC PAIR CREATION TRANSPARENCY IN GAMMA-RAY PULSARS. <i>Astrophysical Journal</i> , 2014, 790, 61.	4.5	12
35	TIME RESOLVED SPECTROSCOPY OF SGR J1550â€“5418 BURSTS DETECTED WITH<i>FERMI</i>/GAMMA-RAY BURST MONITOR. <i>Astrophysical Journal</i> , 2014, 785, 52.	4.5	23
36	Diagnosing particle acceleration in relativistic jets. <i>Proceedings of the International Astronomical Union</i> , 2014, 10, 153-158.	0.0	1

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37	Compton scattering in strong magnetic fields: Spin-dependent influences at the cyclotron resonance. <i>Physical Review D</i> , 2014, 90, .	4.7	18
38	Petawatt laser absorption bounded. <i>Nature Communications</i> , 2014, 5, 4149.	12.8	39
39	Design and Performance of the X-ray Polarimeter X-Calibur. <i>Journal of Astronomical Instrumentation</i> , 2014, 03, .	1.5	32
40	Conservation laws and conversion efficiency in ultraintense laser-overdense plasma interactions. <i>Physics of Plasmas</i> , 2013, 20, 103101.	1.9	13
41	Models of hydrostatic magnetar atmospheres at high luminosities. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 434, 1398-1410.	4.4	15
42	THE SECOND <i>FERMI</i> LARGE AREA TELESCOPE CATALOG OF GAMMA-RAY PULSARS. <i>Astrophysical Journal, Supplement Series</i> , 2013, 208, 17.	7.7	693
43	The hard x-ray polarimeter X-Calibur. , 2013, , .		0
44	BROADBAND SPECTRAL INVESTIGATIONS OF SGR J1550â€“5418 BURSTS. <i>Astrophysical Journal</i> , 2012, 756, 54.	4.5	40
45	SGR J1550â€“5418 BURSTS DETECTED WITH THE <i>FERMI</i> GAMMA-RAY BURST MONITOR DURING ITS MOST PROLIFIC ACTIVITY. <i>Astrophysical Journal</i> , 2012, 749, 122.	4.5	66
46	DETECTION OF SPECTRAL EVOLUTION IN THE BURSTS EMITTED DURING THE 2008-2009 ACTIVE EPISODE OF SGR J1550â€“5418. <i>Astrophysical Journal</i> , 2012, 755, 150.	4.5	23
47	DIFFUSIVE ACCELERATION OF PARTICLES AT OBLIQUE, RELATIVISTIC, MAGNETOHYDRODYNAMIC SHOCKS. <i>Astrophysical Journal</i> , 2012, 745, 63.	4.5	119
48	CONSTRAINTS ON THE SYNCHROTRON SHOCK MODEL FOR THE <i>FERMI</i> GRB 090820A OBSERVED BY GAMMA-RAY BURST MONITOR. <i>Astrophysical Journal</i> , 2011, 741, 24.	4.5	43
49	BURST AND PERSISTENT EMISSION PROPERTIES DURING THE RECENT ACTIVE EPISODE OF THE ANOMALOUS X-RAY PULSAR 1E 1841â€“045. <i>Astrophysical Journal Letters</i> , 2011, 740, L16.	8.3	24
50	Design and tests of the hard x-ray polarimeter X-Calibur. , 2011, , .		3
51	RADIO AND $\hat{3}$ -RAY CONSTRAINTS ON THE EMISSION GEOMETRY AND BIRTHPLACE OF PSR J2043+2740. <i>Astrophysical Journal</i> , 2011, 728, 77.	4.5	9
52	COOLING RATES FOR RELATIVISTIC ELECTRONS UNDERGOING COMPTON SCATTERING IN STRONG MAGNETIC FIELDS. <i>Astrophysical Journal</i> , 2011, 733, 61.	4.5	24
53	OBSERVATIONS OF ENERGETIC HIGH MAGNETIC FIELD PULSARS WITH THE <i>FERMI</i> LARGE AREA TELESCOPE. <i>Astrophysical Journal</i> , 2011, 743, 170.	4.5	26
54	<i>Fermi</i>/GAMMA-RAY BURST MONITOR OBSERVATIONS OF SGR J0501+4516 BURSTS. <i>Astrophysical Journal</i> , 2011, 739, 87.	4.5	37

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55	Using gamma-ray burst prompt emission to probe relativistic shock acceleration. <i>Advances in Space Research</i> , 2011, 47, 1427-1433.	2.6	6
56	INSIGHTS INTO THE HIGH-ENERGY $\hat{\gamma}$ -RAY EMISSION OF MARKARIAN 501 FROM EXTENSIVE MULTIFREQUENCY OBSERVATIONS IN THE <i><i>FERMI</i></i> ERA. <i>Astrophysical Journal</i> , 2011, 727, 129.	4.5	185
57	Focusing of intense subpicosecond laser pulses in wedge targets. <i>Physics of Plasmas</i> , 2011, 18, 103110.	1.9	3
58	Perspectives on Gamma-Ray Pulsar Emission. , 2011, , .		3
59	Lepton Acceleration in Pulsar Wind Nebulae. <i>Thirty Years of Astronomical Discovery With UKIRT</i> , 2011, , 453-472.	0.3	1
60	THE FIRST <i><i>FERMI</i></i> LARGE AREA TELESCOPE CATALOG OF GAMMA-RAY PULSARS. <i>Astrophysical Journal, Supplement Series</i> , 2010, 187, 460-494.	7.7	396
61	<i><i>FERMI</i></i> LARGE AREA TELESCOPE OBSERVATIONS OF GAMMA-RAY PULSARS PSR J1057â€“5226, J1709â€“4429, AND J1952+3252. <i>Astrophysical Journal</i> , 2010, 720, 26-40.	4.5	24
62	SEARCH FOR GAMMA-RAY EMISSION FROM MAGNETARS WITH THE <i><i>FERMI</i></i> LARGE AREA TELESCOPE. <i>Astrophysical Journal Letters</i> , 2010, 725, L73-L78.	8.3	42
63	DETECTION OF THE ENERGETIC PULSAR PSR B1509â€“58 AND ITS PULSAR WIND NEBULA IN MSH 15â€“52 USING THE <i><i>FERMI</i></i> -LARGE AREA TELESCOPE. <i>Astrophysical Journal</i> , 2010, 714, 927-936.	4.5	72
64	<i><i>FERMI</i></i> LARGE AREA TELESCOPE OBSERVATIONS OF THE CRAB PULSAR AND NEBULA. <i>Astrophysical Journal</i> , 2010, 708, 1254-1267.	4.5	237
65	<i><i>FERMI</i></i> LARGE AREA TELESCOPE OBSERVATIONS OF PSR J1836+5925. <i>Astrophysical Journal</i> , 2010, 712, 1209-1218.	4.5	33
66	<i><i>SUZAKU</i></i> OBSERVATIONS OF LUMINOUS QUASARS: REVEALING THE NATURE OF HIGH-ENERGY BLAZAR EMISSION IN LOW-LEVEL ACTIVITY STATES. <i>Astrophysical Journal</i> , 2010, 716, 835-849.	4.5	23
67	THE VELA PULSAR: RESULTS FROM THE FIRST YEAR OF <i><i>FERMI</i></i> LAT OBSERVATIONS. <i>Astrophysical Journal</i> , 2010, 713, 154-165.	4.5	96
68	A <i><i>SUZAKU</i></i> X-RAY STUDY OF THE PARTICLE ACCELERATION PROCESSES IN THE RELATIVISTIC JET OF BLAZAR Mrk 421. <i>Astrophysical Journal</i> , 2010, 722, 358-366.	4.5	16
69	<i><i>FERMI</i></i> OBSERVATIONS OF TeV-SELECTED ACTIVE GALACTIC NUCLEI. <i>Astrophysical Journal</i> , 2009, 707, 1310-1333.	4.5	114
70	SEARCH FOR A REDSHIFTED 2.2 MeV NEUTRON CAPTURE LINE FROM A0535+262 IN OUTBURST. <i>Astrophysical Journal</i> , 2009, 694, 593-598.	4.5	1
71	SIMULTANEOUS OBSERVATIONS OF PKS 2155â€“304 WITH HESS, <i><i>FERMI</i></i> , <i><i>RXTE</i></i> , AND ATOM: SPECTRAL ENERGY DISTRIBUTIONS AND VARIABILITY IN A LOW STATE. <i>Astrophysical Journal</i> , 2009, 696, L150-L155.	4.5	144
72	DISCOVERY OF PULSED $\hat{\gamma}$ -RAYS FROM THE YOUNG RADIO PULSAR PSR J1028â€“5819 WITH THE <i><i>FERMI</i></i> LARGE AREA TELESCOPE. <i>Astrophysical Journal</i> , 2009, 695, L72-L77.	4.5	31

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73	<i>FERMI</i> LARGE AREA TELESCOPE OBSERVATIONS OF THE VELA PULSAR. <i>Astrophysical Journal</i> , 2009, 696, 1084-1093.	4.5	120
74	HX-POL—A Balloon-Borne Hard X-Ray Polarimeter. <i>IEEE Transactions on Nuclear Science</i> , 2009, 56, 3607-3613.	2.0	7
75	Particle Acceleration at Relativistic Shocks in Extragalactic Systems. , 2009, , .		3
76	Probes of Diffusive Shock Acceleration using Gamma-Ray Burst Prompt Emission. , 2009, , .		5
77	GRB Polarimetry with POET. , 2009, , .		8
78	<i>FERMI</i> LARGE AREA TELESCOPE DETECTION OF PULSED $\hat{3}$ -RAYS FROM THE VELA-LIKE PULSARS PSR J1048—5832 AND PSR J2229+6114. <i>Astrophysical Journal</i> , 2009, 706, 1331-1340.	4.5	41
79	Fermi Observations of High-Energy Gamma-Ray Emission from GRB 080916C. <i>Science</i> , 2009, 323, 1688-1693.	12.6	523
80	A limit on the variation of the speed of light arising from quantum gravity effects. <i>Nature</i> , 2009, 462, 331-334.	27.8	454
81	<i>FERMI</i> OBSERVATIONS OF GRB 090902B: A DISTINCT SPECTRAL COMPONENT IN THE PROMPT AND DELAYED EMISSION. <i>Astrophysical Journal</i> , 2009, 706, L138-L144.	4.5	364
82	The Fermi Gamma-Ray Space Telescope Discovers the Pulsar in the Young Galactic Supernova Remnant CTA 1. <i>Science</i> , 2008, 322, 1218-1221.	12.6	87
83	Modeling the Non-Thermal X-ray Tail Emission of Anomalous X-ray Pulsars. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	4
84	Particle Acceleration at Interplanetary Shocks. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	2
85	The Gamma Ray Burst section of the White Paper on the Status and Future of Very High Energy Gamma Ray Astronomy: A Brief Preliminary Report. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	0
86	Photon Splitting and Pair Conversion in Strong Magnetic Fields. , 2008, , .		14
87	Blazar $\hat{3}$ -Rays, Shock Acceleration, and the Extragalactic Background Light. <i>Astrophysical Journal</i> , 2007, 667, L29-L32.	4.5	111
88	Electrostatic Potentials in Supernova Remnant Shocks. <i>Astrophysics and Space Science</i> , 2007, 307, 165-168.	1.4	13
89	Topical Issues for Particle Acceleration Mechanisms in Astrophysical Shocks. <i>Astrophysics and Space Science</i> , 2007, 307, 297-303.	1.4	4
90	Resonant Compton upscattering in anomalous X-ray pulsars. <i>Astrophysics and Space Science</i> , 2007, 308, 109-118.	1.4	94

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91	Temporal Evolution of Pair Attenuation Signatures in Gamma-Ray Burst Spectra. <i>Astrophysical Journal</i> , 2006, 650, 1004-1019.	4.5	44
92	Modeling accelerated pick-up ion distributions at an interplanetary shock. <i>Advances in Space Research</i> , 2006, 37, 1426-1432.	2.6	4
93	Electrostatic Potentials in Supernova Remnant Shocks. , 2006, , 165-168.		0
94	Topical Issues for Particle Acceleration Mechanisms in Astrophysical Shocks. , 2006, , 297-303.		0
95	Spin-Dependent Cyclotron Decay Rates in Strong Magnetic Fields. <i>Astrophysical Journal</i> , 2005, 630, 430-440.	4.5	42
96	Multiwavelength spectral models for SNR G347.3-0.5 from non-linear shock acceleration. <i>Advances in Space Research</i> , 2005, 35, 1041-1046.	2.6	5
97	Diffusive Acceleration of Ions at Interplanetary Shocks. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	0
98	Quiescent Magnetar Emission: Resonant Compton Upscattering. <i>Symposium - International Astronomical Union</i> , 2004, 218, 267-270.	0.1	0
99	Magnetohydrodynamic Jump Conditions for Oblique Relativistic Shocks with Gyrotropic Pressure. <i>Astrophysical Journal</i> , 2004, 600, 485-500.	4.5	30
100	Diffusive Shock Acceleration of High Energy Cosmic Rays. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2004, 136, 198-207.	0.4	33
101	High-energy emission from pulsars: the polar cap scenario. <i>Advances in Space Research</i> , 2004, 33, 552-560.	2.6	40
102	A Study of Prompt Emission Mechanisms in Gamma-Ray Bursts. <i>Astrophysical Journal</i> , 2004, 613, 460-476.	4.5	60
103	Variability Constraints on Blazar Magnetic Fields. <i>Publications of the Astronomical Society of Australia</i> , 2002, 19, 60-63.	3.4	5
104	Photon Splitting and Pair Creation in Highly Magnetized Pulsars. <i>Astrophysical Journal</i> , 2001, 547, 929-948.	4.5	129
105	Nonlinear Shock Acceleration and Photon Emission in Supernova Remnants. <i>Astrophysical Journal</i> , 2000, 540, 292-307.	4.5	136
106	Compton Scattering in Ultrastrong Magnetic Fields: Numerical and Analytical Behavior in the Relativistic Regime. <i>Astrophysical Journal</i> , 2000, 540, 907-922.	4.5	52
107	Radio to Gamma-Ray Emission from Shell-Type Supernova Remnants: Predictions from Nonlinear Shock Acceleration Models. <i>Astrophysical Journal</i> , 1999, 513, 311-338.	4.5	178
108	Photon-Splitting Cascades in Gamma-Ray Pulsars and the Spectrum of PSR 1509-58. <i>Astrophysical Journal</i> , 1997, 476, 246-260.	4.5	95

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109	Magnetic Photon Splitting: Computations of Proper Time Rates and Spectra. <i>Astrophysical Journal</i> , 1997, 482, 372-376.	4.5	27
110	Acceleration of Solar Wind Ions by Nearby Interplanetary Shocks: Comparison of Monte Carlo Simulations with <i>Ulysses</i> Observations. <i>Astrophysical Journal</i> , 1997, 476, 889-902.	4.5	63
111	The Escape of High Energy Photons from Gamma Ray Bursts. <i>Astrophysical Journal</i> , 1997, 491, 663-686.	4.5	110
112	Nonlinear Particle Acceleration in Oblique Shocks. <i>Astrophysical Journal</i> , 1996, 473, 1029-1050.	4.5	114
113	Acceleration Rates and Injection Efficiencies in Oblique Shocks. <i>Astrophysical Journal</i> , 1995, 453, 873.	4.5	142