Maxim V Barkov

List of Publications by Year
in descending order

66 papers	2,423 citations	218381 26 h-index	243296 44 g-index
68 all docs	68 docs citations	68 times ranked	2258 citing authors

#	Article	IF	Citations
1	A Semianalytic Afterglow with Thermal Electrons and Synchrotron Self-Compton Emission. Astrophysical Journal, 2022, 924, 40.	1.6	11
2	Fast Radio Bursts by High-frequency Synchrotron Maser Emission Generated at the Reverse Shock of a Powerful Magnetar Flare. Astrophysical Journal, 2022, 927, 2.	1.6	5
3	Relativistic hydrodynamical simulations of the effects of the stellar wind and the orbit on high-mass microquasar jets. Monthly Notices of the Royal Astronomical Society, 2022, 510, 3479-3494.	1.6	6
4	Formation of periodic FRB in binary systems with eccentricity. Monthly Notices of the Royal Astronomical Society, 2022, 515, 4217-4228.	1.6	6
5	Dynamics and Emission of Wind-powered Afterglows of Gamma-Ray Bursts: Flares, Plateaus, and Steep Decays. Astrophysical Journal, 2021, 907, 109.	1.6	5
6	Peeking Between the Pulses: The Far-UV Spectrum of the Previously Unseen White Dwarf in AR Scorpii. Astrophysical Journal, 2021, 908, 195.	1.6	9
7	Radio afterglow of magnetarsâ€™ giant flares. Monthly Notices of the Royal Astronomical Society, 2021, 506, 6093-6110.	1.6	2
8	The Major Role of Eccentricity in the Evolution of Colliding Pulsar-Stellar Winds. Universe, 2021, 7, 277.	0.9	4
9	The Maximum Energy of Shock-accelerated Electrons in a Microturbulent Magnetic Field. Astrophysical Journal, 2021, 906, 33.	1.6	8
10	Fast-moving pulsars as probes of interstellar medium. Monthly Notices of the Royal Astronomical Society, 2020, 497, 2605-2615.	1.6	2
11	On the nature of radio filaments near the Galactic Center. Journal of Physics: Conference Series, 2020, 1623, 012001.	0.3	0
12	Tilting instability of magnetically confined spheromaks. Journal of Plasma Physics, 2020, 86, .	0.7	5
13	FRB Periodicity: Mild Pulsars in Tight O/B-star Binaries. Astrophysical Journal Letters, 2020, 893, L39.	3.0	85
14	On the nature of radio filaments near the Galactic Centre. Monthly Notices of the Royal Astronomical Society: Letters, 2019, 489, L28-L31.	1.2	13
15	3D relativistic MHD simulations of bow-shock Pulsar Wind Nebulae with highly asymmetric geometry. Journal of Physics: Conference Series, 2019, 1225, 012001.	0.3	0
16	Kinetic â€˜jetsâ€™ from fast-moving pulsars. Monthly Notices of the Royal Astronomical Society, 2019, 485, 2041-2053.	1.6	26
17	3D dynamics and morphology of bow-shock pulsar wind nebulae. Monthly Notices of the Royal Astronomical Society, 2019, 484, 4760-4784.	1.6	35
18	Gamma-ray emission of hot astrophysical plasma. Physical Review D, 2019, 99, .	1.6	3

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19	The photospheric origin of the Yonetoku relation in gamma-ray bursts. Nature Communications, 2019, 10, 1504.	5.8	36
20	Monte Carlo studies for the optimisation of the Cherenkov Telescope Array layout. Astroparticle Physics, 2019, 111, 35-53.	1.9	35
21	GRB 170817A Associated with GW170817: Multi-frequency Observations and Modeling of Prompt Gamma-Ray Emission. Astrophysical Journal Letters, 2018, 852, L30.	3.0	89
22	Synchrotron self-absorption in GRB afterglows: the effects of a thermal electron population. Monthly Notices of the Royal Astronomical Society, 2018, 480, 4060-4068.	1.6	28
23	A hydrodynamics-informed, radiation model for HESS J0632Â+Â057 from radio to gamma-rays. Monthly Notices of the Royal Astronomical Society, 2018, 479, 1320-1326.	1.6	16
24	Nonlinear Particle Acceleration and Thermal Particles in GRB Afterglows. Astrophysical Journal, 2017, 835, 248.	1.6	27
25	Prospects for Cherenkov Telescope Array Observations of the Young Supernova Remnant RX J1713.7â˜3946. Astrophysical Journal, 2017, 840, 74.	1.6	14
26	Scenarios for Ultrafast Gamma-Ray Variability in AGN. Astrophysical Journal, 2017, 841, 61.	1.6	47
27	HESSÂJ0632+057: hydrodynamics and non-thermal emission. Monthly Notices of the Royal Astronomical Society: Letters, 2017, 471, L150-L154.	1.2	13
28	Ultrafast VHE Gamma-Ray Flares of ICÂ310. Proceedings of the International Astronomical Union, 2016, 12, 157-163.	0.0	0
29	Relativistic tearing and drift-kink instabilities in two-fluid simulations. Monthly Notices of the Royal Astronomical Society, 2016, 458, 1939-1947.	1.6	21
30	PHOTOSPHERIC EMISSION FROM COLLAPSAR JETS IN 3D RELATIVISTIC HYDRODYNAMICS. Astrophysical Journal Letters, 2015, 814, L29.	3.0	51
31	The origin of the X-ray-emitting object moving away from PSR B1259â€“63. Monthly Notices of the Royal Astronomical Society: Letters, 2015, 456, L64-L68.	1.2	20
32	Signatures of very massive stars: supercollapsars and their cosmological rate. Monthly Notices of the Royal Astronomical Society, 2014, 439, 3520-3525.	1.6	8
33	A multidimensional numerical scheme for two-fluid relativistic magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2014, 438, 704-716.	1.6	17
34	STAR-JET INTERACTIONS AND GAMMA-RAY OUTBURSTS FROM 3C454.3. Astrophysical Journal, 2013, 774, 113.	1.6	41
35	RAPID TeV VARIABILITY IN BLAZARS AS A RESULT OF JET-STAR INTERACTION. Astrophysical Journal, 2012, 749, 119.	1.6	82
36	CLOSE BINARY PROGENITORS OF HYPERNOVAE. International Journal of Modern Physics Conference Series, 2012, 08, 209-219.	0.7	3

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37	INTERPRETATION OF THE FLARES OF M87 AT TeV ENERGIES IN THE CLOUD-JET INTERACTION SCENARIO. Astrophysical Journal, 2012, 755, 170.	1.6	38
38	Jets and gamma-ray emission from isolated accreting black holes. Monthly Notices of the Royal Astronomical Society, 2012, 427, 589-594.	1.6	14
39	Simulations of stellar/pulsar-wind interaction along one full orbit. Astronomy and Astrophysics, 2012, 544, A59.	2.1	67
40	Clouds and red giants interacting with the base of AGN jets. Astronomy and Astrophysics, 2012, 539, A69.	2.1	59
41	Direct wind accretion and jet launch in binary systems. Monthly Notices of the Royal Astronomical Society, 2012, 421, 1351-1359.	1.6	21
42	Large-scale flow dynamics and radiation in pulsarÎ³-ray binaries. Astronomy and Astrophysics, 2011, 535, A20.	2.1	37
43	Recycling of neutron stars in common envelopes and hypernova explosions. Monthly Notices of the Royal Astronomical Society, 2011, 415, 944-958.	1.6	39
44	Model of the extended emission of short gamma-ray bursts. Monthly Notices of the Royal Astronomical Society, 2011, 417, 2161-2165.	1.6	67
45	Accretion of a massive magnetized torus on a rotating black hole. New Astronomy, 2011, 16, 46-56.	0.8	40
46	Hard X-Ray bursts in collapse of supermassive stars. Astrophysical Bulletin, 2010, 65, 217-222.	0.3	6
47	Supercollapsars and their X-ray bursts. Monthly Notices of the Royal Astronomical Society: Letters, 2010, 402, L25-L29.	1.2	55
48	Close binary progenitors of gamma-ray bursts. Monthly Notices of the Royal Astronomical Society, 2010, 401, 1644-1656.	1.6	52
49	GAMMA-RAY FLARES FROM RED GIANT/JET INTERACTIONS IN ACTIVE GALACTIC NUCLEI. Astrophysical Journal, 2010, 724, 1517-1523.	1.6	90
50	Magnetic acceleration of ultrarelativistic jets in gamma-ray burst sources. Monthly Notices of the Royal Astronomical Society, 2009, 394, 1182-1212.	1.6	303
51	Activation of the Blandford-Znajek mechanism in collapsing stars. Monthly Notices of the Royal Astronomical Society, 2009, 397, 1153-1168.	1.6	107
52	Stellar explosions powered by the Blandfordâ€“Znajek mechanism. Monthly Notices of the Royal Astronomical Society: Letters, 2008, 385, L28-L32.	1.2	93
53	MAGNETIC ACCELERATION OF ULTRARELATIVISTIC GRB AND AGN JETS. International Journal of Modern Physics D, 2008, 17, 1669-1675.	0.9	20
54	Hyper-accreting tori of Gamma Ray Bursters. AIP Conference Proceedings, 2008, , .	0.3	1

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55	Central engines of Gamma Ray Bursts. Magnetic mechanism in the collapsar model.. , 2008, , .		3
56	Tearing instability in relativistic magnetically dominated plasmas. Monthly Notices of the Royal Astronomical Society, 2007, 374, 415-426.	1.6	77
57	Interaction of a cosmological gamma-ray burst with a dense molecular cloud and the formation of jets. Astronomy Reports, 2005, 49, 24-35.	0.2	9
58	The Afterglow of a Dense Molecular Cloud after the Passage of a Cosmological Gamma-Ray Burst. Astronomy Reports, 2005, 49, 611.	0.2	3
59	Infrared Afterglow of the Gamma Ray Burst GRB041219 as the Result of Reradiation from Dust in a Circumstellar Cloud. Astrophysics, 2005, 48, 369-373.	0.1	4
60	On chaotic behavior of gravitating stellar shells. Chaos, 2005, 15, 013104.	1.0	2
61	Model of Ejection of Matter from Dense Stellar Cluster and Chaotic Motion of Gravitating Shells. Lecture Notes in Physics, 2003, , 357-364.	0.3	0
62	Model of ejection of matter from non-stationary dense stellar clusters and chaotic motion of gravitating shells. Monthly Notices of the Royal Astronomical Society, 2002, 334, 338-344.	1.6	8
63	An exact general-relativity solution for the motion and intersections of self-gravitating shells in the field of a massive black hole. Journal of Experimental and Theoretical Physics, 2002, 95, 371-391.	0.2	7
64	The thermal evolution of Thorne-Zytkow objects. Astronomy Reports, 2001, 45, 230-235.	0.2	5
65	Magnetic acceleration of relativistic active galactic nucleus jets. Monthly Notices of the Royal Astronomical Society, 0, 380, 51-70.	1.6	337
66	Magnetar-energized supernova explosions and gamma-ray burst jets. Monthly Notices of the Royal Astronomical Society, 0, 382, 1029-1040.	1.6	86