

Yosuke Mizuno

List of Publications by Year in descending order

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131
papers

11,652
citations

50170

46
h-index

30848

102
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135
all docs

135
docs citations

135
times ranked

4115
citing authors

#	ARTICLE	IF	CITATIONS
1	First M87 Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole. <i>Astrophysical Journal Letters</i> , 2019, 875, L1.	3.0	2,264
2	First M87 Event Horizon Telescope Results. VI. The Shadow and Mass of the Central Black Hole. <i>Astrophysical Journal Letters</i> , 2019, 875, L6.	3.0	897
3	First M87 Event Horizon Telescope Results. V. Physical Origin of the Asymmetric Ring. <i>Astrophysical Journal Letters</i> , 2019, 875, L5.	3.0	814
4	First M87 Event Horizon Telescope Results. IV. Imaging the Central Supermassive Black Hole. <i>Astrophysical Journal Letters</i> , 2019, 875, L4.	3.0	806
5	First M87 Event Horizon Telescope Results. II. Array and Instrumentation. <i>Astrophysical Journal Letters</i> , 2019, 875, L2.	3.0	618
6	First Sagittarius A* Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole in the Center of the Milky Way. <i>Astrophysical Journal Letters</i> , 2022, 930, L12.	3.0	568
7	First M87 Event Horizon Telescope Results. III. Data Processing and Calibration. <i>Astrophysical Journal Letters</i> , 2019, 875, L3.	3.0	519
8	First M87 Event Horizon Telescope Results. VIII. Magnetic Field Structure near The Event Horizon. <i>Astrophysical Journal Letters</i> , 2021, 910, L13.	3.0	297
9	New method for shadow calculations: Application to parametrized axisymmetric black holes. <i>Physical Review D</i> , 2016, 94, .	1.6	219
10	First M87 Event Horizon Telescope Results. VII. Polarization of the Ring. <i>Astrophysical Journal Letters</i> , 2021, 910, L12.	3.0	215
11	First Sagittarius A* Event Horizon Telescope Results. VI. Testing the Black Hole Metric. <i>Astrophysical Journal Letters</i> , 2022, 930, L17.	3.0	215
12	Gravitational Test beyond the First Post-Newtonian Order with the Shadow of the M87 Black Hole. <i>Physical Review Letters</i> , 2020, 125, 141104.	2.9	190
13	First Sagittarius A* Event Horizon Telescope Results. V. Testing Astrophysical Models of the Galactic Center Black Hole. <i>Astrophysical Journal Letters</i> , 2022, 930, L16.	3.0	187
14	The current ability to test theories of gravity with black hole shadows. <i>Nature Astronomy</i> , 2018, 2, 585-590.	4.2	180
15	The Event Horizon General Relativistic Magnetohydrodynamic Code Comparison Project. <i>Astrophysical Journal, Supplement Series</i> , 2019, 243, 26.	3.0	175
16	First Sagittarius A* Event Horizon Telescope Results. III. Imaging of the Galactic Center Supermassive Black Hole. <i>Astrophysical Journal Letters</i> , 2022, 930, L14.	3.0	163
17	The black hole accretion code. <i>Computational Astrophysics and Cosmology</i> , 2017, 4, .	22.7	154
18	BlackHoleCam: Fundamental physics of the galactic center. <i>International Journal of Modern Physics D</i> , 2017, 26, 1730001.	0.9	148

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19	First Sagittarius A* Event Horizon Telescope Results. II. EHT and Multiwavelength Observations, Data Processing, and Calibration. <i>Astrophysical Journal Letters</i> , 2022, 930, L13.	3.0	142
20	First Sagittarius A* Event Horizon Telescope Results. IV. Variability, Morphology, and Black Hole Mass. <i>Astrophysical Journal Letters</i> , 2022, 930, L15.	3.0	137
21	Constraints on black-hole charges with the 2017 EHT observations of M87*. <i>Physical Review D</i> , 2021, 103, .	1.6	126
22	PROBING THE INNERMOST REGIONS OF AGN JETS AND THEIR MAGNETIC FIELDS WITH RADIOASTRON. I. IMAGING BL LACERTAE AT 21 μ as RESOLUTION. <i>Astrophysical Journal</i> , 2016, 817, 96.	1.6	114
23	Three-dimensional Relativistic Magnetohydrodynamic Simulations of Magnetized Spine-Sheath Relativistic Jets. <i>Astrophysical Journal</i> , 2007, 662, 835-850.	1.6	111
24	WEIBEL INSTABILITY AND ASSOCIATED STRONG FIELDS IN A FULLY THREE-DIMENSIONAL SIMULATION OF A RELATIVISTIC SHOCK. <i>Astrophysical Journal</i> , 2009, 698, L10-L13.	1.6	92
25	THREE-DIMENSIONAL RELATIVISTIC MAGNETOHYDRODYNAMIC SIMULATIONS OF CURRENT-DRIVEN INSTABILITY. I. INSTABILITY OF A STATIC COLUMN. <i>Astrophysical Journal</i> , 2009, 700, 684-693.	1.6	84
26	THREE-DIMENSIONAL RELATIVISTIC MAGNETOHYDRODYNAMIC SIMULATIONS OF CURRENT-DRIVEN INSTABILITY. III. ROTATING RELATIVISTIC JETS. <i>Astrophysical Journal</i> , 2012, 757, 16.	1.6	81
27	How to tell an accreting boson star from a black hole. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 497, 521-535.	1.6	80
28	RECOLLIMATION SHOCKS IN MAGNETIZED RELATIVISTIC JETS. <i>Astrophysical Journal</i> , 2015, 809, 38.	1.6	76
29	Polarimetric Properties of Event Horizon Telescope Targets from ALMA. <i>Astrophysical Journal Letters</i> , 2021, 910, L14.	3.0	67
30	Event Horizon Telescope observations of the jet launching and collimation in Centaurus A. <i>Nature Astronomy</i> , 2021, 5, 1017-1028.	4.2	65
31	Modeling non-thermal emission from the jet-launching region of M 87 with adaptive mesh refinement. <i>Astronomy and Astrophysics</i> , 2019, 632, A2.	2.1	61
32	Plasmoid formation in global GRMHD simulations and AGN flares. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 495, 1549-1565.	1.6	57
33	Broadband Multi-wavelength Properties of M87 during the 2017 Event Horizon Telescope Campaign. <i>Astrophysical Journal Letters</i> , 2021, 911, L11.	3.0	56
34	Event Horizon Telescope imaging of the archetypal blazar 3C 279 at an extreme 20 microarcsecond resolution. <i>Astronomy and Astrophysics</i> , 2020, 640, A69.	2.1	54
35	MAGNETOHYDRODYNAMIC EFFECTS IN PROPAGATING RELATIVISTIC JETS: REVERSE SHOCK AND MAGNETIC ACCELERATION. <i>Astrophysical Journal</i> , 2009, 690, L47-L51.	1.6	53
36	MAGNETIC-FIELD AMPLIFICATION BY TURBULENCE IN A RELATIVISTIC SHOCK PROPAGATING THROUGH AN INHOMOGENEOUS MEDIUM. <i>Astrophysical Journal</i> , 2011, 726, 62.	1.6	52

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37	Flares in the Galactic Centre – I. Orbiting flux tubes in magnetically arrested black hole accretion discs. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 502, 2023-2032.	1.6	52
38	SPATIAL GROWTH OF CURRENT-DRIVEN INSTABILITY IN RELATIVISTIC ROTATING JETS AND THE SEARCH FOR MAGNETIC RECONNECTION. <i>Astrophysical Journal</i> , 2016, 824, 48.	1.6	51
39	Constrained transport and adaptive mesh refinement in the Black Hole Accretion Code. <i>Astronomy and Astrophysics</i> , 2019, 629, A61.	2.1	51
40	Monitoring the Morphology of M87* in 2009–2017 with the Event Horizon Telescope. <i>Astrophysical Journal</i> , 2020, 901, 67.	1.6	51
41	General Relativistic Magnetohydrodynamic Simulations of Collapsars: Rotating Black Hole Cases. <i>Astrophysical Journal</i> , 2004, 615, 389-401.	1.6	50
42	THREE-DIMENSIONAL RELATIVISTIC MAGNETOHYDRODYNAMIC SIMULATIONS OF CURRENT-DRIVEN INSTABILITY. II. RELAXATION OF PULSAR WIND NEBULA. <i>Astrophysical Journal</i> , 2011, 728, 90.	1.6	49
43	THREE-DIMENSIONAL RELATIVISTIC MAGNETOHYDRODYNAMIC SIMULATIONS OF CURRENT-DRIVEN INSTABILITY WITH A SUB-ALFVÉNIC JET: TEMPORAL PROPERTIES. <i>Astrophysical Journal</i> , 2011, 734, 19.	1.6	49
44	General Relativistic Magnetohydrodynamic Simulations of Collapsars. <i>Astrophysical Journal</i> , 2004, 606, 395-412.	1.6	48
45	JET MOTION, INTERNAL WORKING SURFACES, AND NESTED SHELLS IN THE PROTOSTELLAR SYSTEM HH 212. <i>Astrophysical Journal</i> , 2015, 805, 186.	1.6	48
46	THEMIS: A Parameter Estimation Framework for the Event Horizon Telescope. <i>Astrophysical Journal</i> , 2020, 897, 139.	1.6	47
47	Magnetic field amplification and saturation in turbulence behind a relativistic shock. <i>Monthly Notices of the Royal Astronomical Society</i> , 2014, 439, 3490-3503.	1.6	46
48	SPATIAL GROWTH OF THE CURRENT-DRIVEN INSTABILITY IN RELATIVISTIC JETS. <i>Astrophysical Journal</i> , 2014, 784, 167.	1.6	44
49	Verification of Radiative Transfer Schemes for the EHT. <i>Astrophysical Journal</i> , 2020, 897, 148.	1.6	44
50	Test-particle dynamics in general spherically symmetric black hole spacetimes. <i>Physical Review D</i> , 2018, 97, .	1.6	43
51	The Polarized Image of a Synchrotron-emitting Ring of Gas Orbiting a Black Hole. <i>Astrophysical Journal</i> , 2021, 912, 35.	1.6	43
52	Millimeter Light Curves of Sagittarius A* Observed during the 2017 Event Horizon Telescope Campaign. <i>Astrophysical Journal Letters</i> , 2022, 930, L19.	3.0	43
53	EVOLUTION OF GLOBAL RELATIVISTIC JETS: COLLIMATIONS AND EXPANSION WITH κ KHI AND THE WEIBEL INSTABILITY. <i>Astrophysical Journal</i> , 2016, 820, 94.	1.6	36
54	State-of-the-art energetic and morphological modelling of the launching site of the M87 jet. <i>Nature Astronomy</i> , 2022, 6, 103-108.	4.2	33

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55	A Magnetohydrodynamic Boost for Relativistic Jets. <i>Astrophysical Journal</i> , 2008, 672, 72-82.	1.6	31
56	Comparison of the ion-to-electron temperature ratio prescription: GRMHD simulations with electron thermodynamics. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 506, 741-758.	1.6	31
57	STEADY GENERAL RELATIVISTIC MAGNETOHYDRODYNAMIC INFLOW/OUTFLOW SOLUTION ALONG LARGE-SCALE MAGNETIC FIELDS THAT THREAD A ROTATING BLACK HOLE. <i>Astrophysical Journal</i> , 2015, 801, 56.	1.6	30
58	Particle Acceleration by Relativistic Magnetic Reconnection Driven by Kink Instability Turbulence in Poynting Flux-Dominated Jets. <i>Astrophysical Journal</i> , 2021, 908, 193.	1.6	30
59	GRMHD/RMHD simulations & stability of magnetized spine-sheath relativistic jets. <i>Astrophysics and Space Science</i> , 2007, 311, 281-286.	0.5	27
60	MAGNETIC FIELD GENERATION IN CORE-SHEATH JETS VIA THE KINETIC KELVIN-HELMHOLTZ INSTABILITY. <i>Astrophysical Journal</i> , 2014, 793, 60.	1.6	25
61	Using evolutionary algorithms to model relativistic jets. <i>Astronomy and Astrophysics</i> , 2019, 629, A4.	2.1	24
62	Stringent axion constraints with Event Horizon Telescope polarimetric measurements of M87. <i>Nature Astronomy</i> , 2022, 6, 592-598.	4.2	22
63	PIC methods in astrophysics: simulations of relativistic jets and kinetic physics in astrophysical systems. <i>Living Reviews in Solar Physics</i> , 2021, 7, 1.	5.0	21
64	Visibility of black hole shadows in low-luminosity AGN. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 501, 4722-4747.	1.6	21
65	Selective Dynamical Imaging of Interferometric Data. <i>Astrophysical Journal Letters</i> , 2022, 930, L18.	3.0	21
66	Characterizing and Mitigating Intraday Variability: Reconstructing Source Structure in Accreting Black Holes with mm-VLBI. <i>Astrophysical Journal Letters</i> , 2022, 930, L21.	3.0	20
67	A Universal Power-law Prescription for Variability from Synthetic Images of Black Hole Accretion Flows. <i>Astrophysical Journal Letters</i> , 2022, 930, L20.	3.0	20
68	Magnetic field generation in a jet-sheath plasma via the kinetic Kelvin-Helmholtz instability. <i>Annales Geophysicae</i> , 2013, 31, 1535-1541.	0.6	19
69	Jet-torus connection in radio galaxies. <i>Astronomy and Astrophysics</i> , 2018, 609, A80.	2.1	19
70	THE ROLE OF THE EQUATION OF STATE IN RESISTIVE RELATIVISTIC MAGNETOHYDRODYNAMICS. <i>Astrophysical Journal</i> , Supplement Series, 2013, 205, 7.	3.0	18
71	Black hole parameter estimation with synthetic very long baseline interferometry data from the ground and from space. <i>Astronomy and Astrophysics</i> , 2021, 650, A56.	2.1	18
72	Radiation from relativistic shocks in turbulent magnetic fields. <i>Advances in Space Research</i> , 2011, 47, 1434-1440.	1.2	17

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73	Deep Horizon: A machine learning network that recovers accreting black hole parameters. <i>Astronomy and Astrophysics</i> , 2020, 636, A94.	2.1	17
74	Rapid particle acceleration due to recollimation shocks and turbulent magnetic fields in injected jets with helical magnetic fields. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 493, 2652-2658.	1.6	17
75	Fast Magnetic Reconnection Structures in Poynting Flux-dominated Jets. <i>Astrophysical Journal</i> , 2021, 912, 109.	1.6	17
76	THEZA: TeraHertz Exploration and Zooming-in for Astrophysics. <i>Experimental Astronomy</i> , 2021, 51, 559-594.	1.6	17
77	Observable Emission Features of Black Hole GRMHD Jets on Event Horizon Scales. <i>Astrophysical Journal</i> , 2017, 845, 160.	1.6	16
78	The science case and challenges of space-borne sub-millimeter interferometry. <i>Acta Astronautica</i> , 2022, 196, 314-333.	1.7	15
79	PARTICLE ACCELERATION, MAGNETIC FIELD GENERATION, AND ASSOCIATED EMISSION IN COLLISIONLESS RELATIVISTIC JETS. <i>International Journal of Modern Physics D</i> , 2008, 17, 1761-1767.	0.9	13
80	GRMHD Simulations and Modeling for Jet Formation and Acceleration Region in AGNs. <i>Universe</i> , 2022, 8, 85.	0.9	13
81	3-D Rpic Simulations of Relativistic Jets: Particle Acceleration, Magnetic Field Generation, and Emission. <i>Astrophysics and Space Science</i> , 2007, 307, 319-323.	0.5	12
82	Microscopic Processes in Global Relativistic Jets Containing Helical Magnetic Fields. <i>Galaxies</i> , 2016, 4, 38.	1.1	12
83	Unraveling the Innermost Jet Structure of OJ 287 with the First GMVA + ALMA Observations. <i>Astrophysical Journal</i> , 2022, 932, 72.	1.6	12
84	Modelling the polarised emission from black holes on event horizon-scales. <i>Proceedings of the International Astronomical Union</i> , 2018, 14, 9-12.	0.0	11
85	Relativistic Jet Simulations of the Weibel Instability in the Slab Model to Cylindrical Jets with Helical Magnetic Fields. <i>Galaxies</i> , 2019, 7, 29.	1.1	11
86	Microscopic Processes in Global Relativistic Jets Containing Helical Magnetic Fields: Dependence on Jet Radius. <i>Galaxies</i> , 2017, 5, 58.	1.1	10
87	RADIATION FROM RELATIVISTIC SHOCKS WITH TURBULENT MAGNETIC FIELDS. <i>International Journal of Modern Physics D</i> , 2010, 19, 715-721.	0.9	9
88	Simulations of recoiling black holes: adaptive mesh refinement and radiative transfer. <i>Astronomy and Astrophysics</i> , 2017, 598, A38.	2.1	8
89	A Detailed Kinematic Study of 3C 84 and Its Connection to $\hat{\Gamma}^3$ -Rays. <i>Astrophysical Journal</i> , 2021, 914, 43.	1.6	7
90	New Relativistic Particle-In-Cell Simulation Studies of Prompt and Early Afterglows from GRBs. , 2008, , .		6

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91	Radiative Signatures of Parsec-Scale Magnetised Jets. <i>Galaxies</i> , 2017, 5, 73.	1.1	6
92	The Black Hole Accretion Code: adaptive mesh refinement and constrained transport. <i>Journal of Physics: Conference Series</i> , 2018, 1031, 012008.	0.3	6
93	Studies of Relativistic Jets in Active Galactic Nuclei with SKA. , 2015, , .		6
94	The Variability of the Black Hole Image in M87 at the Dynamical Timescale. <i>Astrophysical Journal</i> , 2022, 925, 13.	1.6	6
95	Radiation from accelerated particles in relativistic jets with shocks, shear-flow, and reconnection. <i>EPJ Web of Conferences</i> , 2013, 61, 02003.	0.1	4
96	Particle-in-cell Simulations of Global Relativistic Jets with Helical Magnetic Fields. <i>Proceedings of the International Astronomical Union</i> , 2016, 12, 199-202.	0.0	4
97	Simulation study of magnetic fields generated by the electromagnetic filamentation instability. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	3
98	Radiation from accelerated particles in relativistic jets with shocks, shear-flow, and reconnection. <i>EAS Publications Series</i> , 2013, 61, 177-179.	0.3	3
99	Magnetic Dissipation in Relativistic Jets. <i>Galaxies</i> , 2016, 4, 40.	1.1	3
100	Radiation from relativistic jets in turbulent magnetic fields. , 2009, , .		2
101	Relativistic Particle-In-Cell Simulation Studies of Prompt and Early Afterglows from GRBs. <i>AIP Conference Proceedings</i> , 2008, , .	0.3	1
102	Simulation of relativistic shocks and associated radiation from turbulent magnetic fields. <i>Proceedings of the International Astronomical Union</i> , 2010, 6, 354-357.	0.0	1
103	Simulation of Relativistic Shocks and Associated Self-consistent Radiation. , 2010, , .		1
104	Simulation of Relativistic Shocks and Associated Self-consistent Radiation. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	1
105	CURRENT DRIVEN KINK INSTABILITY IN A MAGNETICALLY DOMINATED ROTATING RELATIVISTIC JET. <i>International Journal of Modern Physics Conference Series</i> , 2014, 28, 1460201.	0.7	1
106	Observational signatures of spherically-symmetric black hole spacetimes. <i>Journal of Physics: Conference Series</i> , 2017, 942, 012007.	0.3	1
107	Magnetic Reconnection on Jet-Accretion Disk Systems. , 2017, , .		1
108	3-D GRMHD Simulations of Disk-Jet Coupling and Emission. <i>AIP Conference Proceedings</i> , 2005, , .	0.3	0

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109	Particle acceleration in electron-ion jets. AIP Conference Proceedings, 2005, , .	0.3	0
110	Simulation Studies of Early Afterglows Observed with SWIFT. AIP Conference Proceedings, 2006, , .	0.3	0
111	Relativistic MHD Simulations of Relativistic Jets with RAISHIN. AIP Conference Proceedings, 2007, , .	0.3	0
112	A Magnetohydrodynamic Boost for Relativistic Jets. AIP Conference Proceedings, 2008, , .	0.3	0
113	Magnetohydrodynamic Effects in Propagating Relativistic Ejecta: Reverse Shock and Magnetic Acceleration. , 2009, , .		0
114	Current-Driven Kink Instability in Relativistic Jets. Proceedings of the International Astronomical Union, 2010, 6, 476-478.	0.0	0
115	Magnetic field amplification by relativistic shocks in a turbulent medium. Proceedings of the International Astronomical Union, 2010, 6, 445-448.	0.0	0
116	Magnetic Field Amplification by Relativistic Shocks in Turbulent Medium. , 2010, , .		0
117	CURRENT-DRIVEN KINK INSTABILITY IN RELATIVISTIC JETS. International Journal of Modern Physics D, 2010, 19, 683-688.	0.9	0
118	MAGNETOHYDRODYNAMIC EFFECTS IN RELATIVISTIC EJECTA. International Journal of Modern Physics D, 2010, 19, 991-996.	0.9	0
119	Radiation from accelerated particles in shocks. Proceedings of the International Astronomical Union, 2011, 7, 371-372.	0.0	0
120	CURRENT DRIVEN INSTABILITY OF A SUB-ALFVÉN%NIC RELATIVISTIC JET. International Journal of Modern Physics Conference Series, 2012, 08, 340-343.	0.7	0
121	MAGNETIC FIELD AMPLIFICATION BY RELATIVISTIC SHOCKS IN AN INHOMOGENEOUS MEDIUM. International Journal of Modern Physics Conference Series, 2012, 08, 364-367.	0.7	0
122	The current-driven kink instability in magnetically dominated relativistic jets. , 2012, , .		0
123	RELAXATION OF PULSAR WIND NEBULA VIA CURRENT-DRIVEN KINK INSTABILITY. International Journal of Modern Physics Conference Series, 2012, 08, 368-371.	0.7	0
124	Magnetic Field Amplification and Saturation by Turbulence in A Relativistic Shock Propagating through An Inhomogeneous Medium. EAS Publications Series, 2013, 61, 173-175.	0.3	0
125	Current-Driven Kink Instability in Magnetically Dominated Rotating Relativistic Jet. EPJ Web of Conferences, 2013, 61, 02004.	0.1	0
126	Particle acceleration and the origin of the very high energy emission around black holes and relativistic jets. Proceedings of the International Astronomical Union, 2018, 14, 13-18.	0.0	0

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127	Long-term Simulations of Magnetized Disks and Jets Around Supermassive Black-hole Binaries in General Relativity. , 2021, , 23-31.		0
128	GRMHD Simulations of Jet Formation with a Newly-Developed GRMHD Code. , 2007, , .		0
129	3D Relativistic MHD Simulations of Magnetized Spine-Sheath Relativistic Jets. , 2007, , .		0
130	Stability of Magnetized Spine-Sheath Relativistic Jets. Thirty Years of Astronomical Discovery With UKIRT, 2009, , 589-591.	0.3	0
131	Accreting Black Hole Binaries. , 2021, , 59-67.		0