Masaru Shibata

List of Publications by Year
in descending order

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Version: 2024-02-01

124 papers	12,176 citations	16411 64 h-index	24915 109 g-index
126 all docs	126 docs citations	126 times ranked	4937 citing authors

#	Article	IF	Citations
1	Prospects for improving the sensitivity of KAGRA gravitational wave detector. , 2022, , .		3
2	Electromagnetic Counterparts of Binary-neutron-star Mergers Leading to a Strongly Magnetized Long-lived Remnant Neutron Star. Astrophysical Journal, 2022, 933, 22.	1.6	12
3	General-relativistic neutrino-radiation magnetohydrodynamic simulation of seconds-long black hole-neutron star mergers. Physical Review D, 2022, 106, .	1.6	40
4	Reducing orbital eccentricity in initial data of black holeâ€“neutron star binaries in the puncture framework. Physical Review D, 2021, 103, .	1.6	2
5	Current status of space gravitational wave antenna DECIGO and B-DECIGO. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	150
6	Long-term evolution of a merger-remnant neutron star in general relativistic magnetohydrodynamics: Effect of magnetic winding. Physical Review D, 2021, 103, .	1.6	22
7	Properties of Neutrino Transfer in a Deformed Remnant of a Neutron Star Merger. Astrophysical Journal, 2021, 907, 92.	1.6	11
8	Properties of the remnant disk and the dynamical ejecta produced in low-mass black hole-neutron star mergers. Physical Review D, 2021, 103, .	1.6	12
9	Alternative possibility of GW190521: Gravitational waves from high-mass black hole-disk systems. Physical Review D, 2021, 103, .	1.6	13
10	A Low-mass Binary Neutron Star: Long-term Ejecta Evolution and Kilonovae with Weak Blue Emission. Astrophysical Journal, 2021, 913, 100.	1.6	40
11	Evolution of bare quark stars in full general relativity: Single star case. Physical Review D, 2021, 103, .	1.6	4
12	Magnetospheres of black hole-neutron star binaries. Physical Review D, 2021, 104, .	1.6	13
13	Ultra-delayed Neutrino-driven Explosion of Rotating Massive-star Collapse. Astrophysical Journal, 2021, 919, 80.	1.6	17
14	Long-term evolution of neutron-star merger remnants in general relativistic resistive magnetohydrodynamics with a mean-field dynamo term. Physical Review D, 2021, 104, .	1.6	28
15	Coalescence of black holeâ€“neutron star binaries. Living Reviews in Relativity, 2021, 24, 1.	8.2	29
16	Analytic properties of the electromagnetic field of binary compact stars and electromagnetic precursors to gravitational waves. Progress of Theoretical and Experimental Physics, 2020, 2020, .	1.8	8
17	Magnetosphere of an orbiting neutron star. Physical Review D, 2020, 101, .	1.6	20
18	Sub-radian-accuracy gravitational waves from coalescing binary neutron stars in numerical relativity. II. Systematic study on the equation of state, binary mass, and mass ratio. Physical Review D, 2020, 101, .	1.6	31

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19	Viscous evolution of a massive disk surrounding stellar-mass black holes in full general relativity. Physical Review D, 2020, 102, .	1.6	35
20	Extreme mass ratio inspirals on the equatorial plane in the adiabatic order. Physical Review D, 2020, 102, .	1.6	23
21	Diversity of Kilonova Light Curves. Astrophysical Journal, 2020, 889, 171.	1.6	91
22	On the Possibility of GW190425 Being a Black Holeâ€“Neutron Star Binary Merger. Astrophysical Journal Letters, 2020, 890, L4.	3.0	53
23	Mass ejection from disks surrounding a low-mass black hole: Viscous neutrino-radiation hydrodynamics simulation in full general relativity. Physical Review D, 2020, 101, .	1.6	77
24	Reanalysis of the binary neutron star mergers GW170817 and GW190425 using numerical-relativity calibrated waveform models. Physical Review Research, 2020, 2, .	1.3	17
25	Constraint on the Ejecta Mass for Black Holeâ€“Neutron Star Merger Event Candidate S190814bv. Astrophysical Journal, 2020, 893, 153.	1.6	26
26	Postmerger Mass Ejection of Low-mass Binary Neutron Stars. Astrophysical Journal, 2020, 901, 122.	1.6	66
27	Space gravitational-wave antennas DECIGO and B-DECIGO. International Journal of Modern Physics D, 2019, 28, 1845001.	0.9	73
28	Differentially rotating strange star in general relativity. Physical Review D, 2019, 100, .	1.6	18
29	Constraint on the maximum mass of neutron stars using GW170817 event. Physical Review D, 2019, 100, .	1.6	219
30	Short GRB 160821B: A Reverse Shock, a Refreshed Shock, and a Well-sampled Kilonova. Astrophysical Journal, 2019, 883, 48.	1.6	96
31	Merger and Mass Ejection of Neutron Star Binaries. Annual Review of Nuclear and Particle Science, 2019, 69, 41-64.	3.5	165
32	Revisiting the Lower Bound on Tidal Deformability Derived by AT 2017gfo. Astrophysical Journal Letters, 2019, 876, L31.	3.0	109
33	Black Hole Formation and Explosion from Rapidly Rotating Very Massive Stars. Astrophysical Journal, 2019, 870, 98.	1.6	6
34	Systematic effects from black hole-neutron star waveform model uncertainties on the neutron star equation of state. Physical Review D, 2019, 99, .	1.6	8
35	Gravitational waves from very massive stars collapsing to a black hole. Physical Review D, 2019, 99, .	1.6	3
36	Discrepancy in tidal deformability of GW170817 between the Advanced LIGO twin detectors. Physical Review Research, 2019, 1, .	1.3	13

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37	Frequency-domain gravitational waveform models for inspiraling binary neutron stars. Physical Review D, 2018, 97, .	1.6	51
38	Neutrino transport in black hole-neutron star binaries: Neutrino emission and dynamical mass ejection. Physical Review D, 2018, 97, .	1.6	57
39	Extracting the orbital axis from gravitational waves of precessing binary systems. Physical Review D, 2018, 97, .	1.6	0
40	Nucleosynthesis in Neutron Star Mergers. , 2018, , .		0
41	Synchrotron Radiation from the Fast Tail of Dynamical Ejecta of Neutron Star Mergers. Astrophysical Journal, 2018, 867, 95.	1.6	92
42	Radiative Transfer Simulation for the Optical and Near-infrared Electromagnetic Counterparts to GW170817. Astrophysical Journal Letters, 2018, 865, L21.	3.0	117
43	On the minimum mass of neutron stars. Monthly Notices of the Royal Astronomical Society, 2018, 481, 3305-3312.	1.6	74
44	Mass Ejection from the Remnant of a Binary Neutron Star Merger: Viscous-radiation Hydrodynamics Study. Astrophysical Journal, 2018, 860, 64.	1.6	183
45	Global simulations of strongly magnetized remnant massive neutron stars formed in binary neutron star mergers. Physical Review D, 2018, 97, .	1.6	135
46	Gravitational waves from remnant massive neutron stars of binary neutron star merger: Viscous hydrodynamics effects. Physical Review D, 2017, 95, .	1.6	65
47	Properties of Neutrino-driven Ejecta from the Remnant of a Binary Neutron Star Merger: Pure Radiation Hydrodynamics Case. Astrophysical Journal, 2017, 846, 114.	1.6	92
48	Gravitational collapse of rotating supermassive stars including nuclear burning effects. Physical Review D, 2017, 96, .	1.6	29
49	General relativistic viscous hydrodynamics of differentially rotating neutron stars. Physical Review D, 2017, 95, .	1.6	75
50	Sub-radian-accuracy gravitational waveforms of coalescing binary neutron stars in numerical relativity. Physical Review D, 2017, 96, .	1.6	72
51	Modeling GW170817 based on numerical relativity and its implications. Physical Review D, 2017, 96, .	1.6	355
52	Gravitational waves from supermassive stars collapsing to a supermassive black hole. Physical Review D, 2016, 94, .	1.6	29
53	Measurability of the tidal deformability by gravitational waves from coalescing binary neutron stars. Physical Review D, 2016, 93, .	1.6	83
54	Dynamical mass ejection from the merger of asymmetric binary neutron stars: Radiation-hydrodynamics study in general relativity. Physical Review D, 2016, 93, .	1.6	218

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55	Effects of Neutron-Star Dynamic Tides on Gravitational Waveforms within the Effective-One-Body Approach. Physical Review Letters, 2016, 116, 181101.	2.9	204
56	Analysis of gravitational waves from binary neutron star merger by Hilbert-Huang transform. Physical Review D, 2016, 93, .	1.6	11
57	MODELS OF KILONOVA/MACRONOVA EMISSION FROM BLACK HOLEâ€“NEUTRON STAR MERGERS. Astrophysical Journal, 2016, 825, 52.	1.6	140
58	STABILITY OF RIGIDLY ROTATING SUPERMASSIVE STARS AGAINST GRAVITATIONAL COLLAPSE. Astrophysical Journal, 2016, 818, 157.	1.6	16
59	Black hole-neutron star binary merger: Dependence on black hole spin orientation and equation of state. Physical Review D, 2015, 92, .	1.6	91
60	Dynamical mass ejection from black hole-neutron star binaries. Physical Review D, 2015, 92, .	1.6	140
61	High resolution magnetohydrodynamic simulation of black hole-neutron star merger: Mass ejection and short gamma ray bursts. Physical Review D, 2015, 92, .	1.6	120
62	Gravitational-wave cutoff frequencies of tidally disruptive neutron star-black hole binary mergers. Physical Review D, 2015, 92, .	1.6	37
63	Aligned spin neutron star-black hole mergers: A gravitational waveform amplitude model. Physical Review D, 2015, 92, .	1.6	40
64	Efficient magnetic-field amplification due to the Kelvin-Helmholtz instability in binary neutron star mergers. Physical Review D, 2015, 92, .	1.6	165
65	Neutrino-driven explosions of ultra-stripped Type Ic supernovae generating binary neutron stars. Monthly Notices of the Royal Astronomical Society, 2015, 454, 3073-3081.	1.6	73
66	Exploring tidal effects of coalescing binary neutron stars in numerical relativity. II. Long-term simulations. Physical Review D, 2015, 91, .	1.6	56
67	Quasiequilibrium sequences of binary neutron stars undergoing dynamical scalarization. Physical Review D, 2015, 91, .	1.6	43
68	Dynamical mass ejection from binary neutron star mergers: Radiation-hydrodynamics study in general relativity. Physical Review D, 2015, 91, .	1.6	243
69	RADIOACTIVELY POWERED EMISSION FROM BLACK HOLE-NEUTRON STAR MERGERS. Astrophysical Journal, 2014, 780, 31.	1.6	116
70	Nucleosynthesis in the ejecta of neutron star mergers. , 2014, , .		0
71	Higher dimensional numerical relativity: Code comparison. Physical Review D, 2014, 90, .	1.6	10
72	Extracting equation of state parameters from black hole-neutron star mergers: Aligned-spin black holes and a preliminary waveform model. Physical Review D, 2014, 89, .	1.6	114

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73	Reducing orbital eccentricity in initial data of binary neutron stars. Physical Review D, 2014, 90, .	1.6	53
74	Coalescence of binary neutron stars in a scalar-tensor theory of gravity. Physical Review D, 2014, 89, .	1.6	136
75	High resolution numerical relativity simulations for the merger of binary magnetized neutron stars. Physical Review D, 2014, 90, .	1.6	167
76	JET COLLIMATION IN THE EJECTA OF DOUBLE NEUTRON STAR MERGERS: A NEW CANONICAL PICTURE OF SHORT GAMMA-RAY BURSTS. Astrophysical Journal Letters, 2014, 784, L28.	3.0	159
77	PRODUCTION OF ALL THE r -PROCESS NUCLIDES IN THE DYNAMICAL EJECTA OF NEUTRON STAR MERGERS. Astrophysical Journal Letters, 2014, 789, L39.	3.0	491
78	Conservative form of Boltzmannâ€™s equation in general relativity. Physical Review D, 2014, 89, .	1.6	30
79	Anisotropic mass ejection from black hole-neutron star binaries: Diversity of electromagnetic counterparts. Physical Review D, 2013, 88, .	1.6	105
80	Exploring tidal effects of coalescing binary neutron stars in numerical relativity. Physical Review D, 2013, 87, .	1.6	75
81	Remnant massive neutron stars of binary neutron star mergers: Evolution process and gravitational waveform. Physical Review D, 2013, 88, .	1.6	246
82	Nonspinning black hole-neutron star mergers: A model for the amplitude of gravitational waveforms. Physical Review D, 2013, 88, .	1.6	27
83	Mass ejection from the merger of binary neutron stars. Physical Review D, 2013, 87, .	1.6	414
84	Matter effects on binary neutron star waveforms. Physical Review D, 2013, 88, .	1.6	238
85	Stably stratified magnetized stars in general relativity. Physical Review D, 2012, 86, .	1.6	25
86	Extracting equation of state parameters from black hole-neutron star mergers: Nonspinning black holes. Physical Review D, 2012, 85, .	1.6	131
87	Three-dimensional evolution of differentially rotating magnetized neutron stars. Physical Review D, 2012, 86, .	1.6	53
88	Erratum and Addendum: Gravitational waves from black hole-neutron star binaries: Classification of waveforms. Physical Review D, 2012, 85, .	1.6	10
89	INFERRING THE NEUTRON STAR EQUATION OF STATE FROM BINARY INSPIRAL WAVEFORMS. , 2012, , .		3
90	Is super-Planckian physics visible? Scattering of black holes in 5 dimensions. Physical Review D, 2011, 83, .	1.6	42

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91	Gravitational Waves from the Papaloizou-Pringle Instability in Black-Hole-Torus Systems. Physical Review Letters, 2011, 106, 251102.	2.9	73
92	AFTERGLOW OF A BINARY NEUTRON STAR MERGER. Astrophysical Journal Letters, 2011, 734, L36.	3.0	52
93	FORMATION OF BLACK HOLE AND ACCRETION DISK IN A MASSIVE HIGH-ENTROPY STELLAR CORE COLLAPSE. Astrophysical Journal, 2011, 737, 6.	1.6	67
94	Coalescence of Black Hole-Neutron Star Binaries. Living Reviews in Relativity, 2011, 14, 6.	8.2	349
95	Binary neutron star mergers: Dependence on the nuclear equation of state. Physical Review D, 2011, 83, .	1.6	230
96	Gravitational Waves and Neutrino Emission from the Merger of Binary Neutron Stars. Physical Review Letters, 2011, 107, 051102.	2.9	225
97	Truncated Moment Formalism for Radiation Hydrodynamics in Numerical Relativity. Progress of Theoretical Physics, 2011, 125, 1255-1287.	2.0	171
98	Exploring Higher-Dimensional Black Holes in Numerical Relativity. Progress of Theoretical Physics Supplement, 2011, 190, 282-303.	0.2	11
99	Constraining Nuclear-Matter Equations of State by Gravitational Waves from Black Hole-Neutron Star Binaries. Progress of Theoretical Physics Supplement, 2010, 186, 17-25.	0.2	3
100	Exploring Binary-Neutron-Star-Merger Scenario of Short-Gamma-Ray Bursts by Gravitational-Wave Observation. Physical Review Letters, 2010, 104, 141101.	2.9	60
101	Gravitational waves from nonspinning black hole-neutron star binaries: Dependence on equations of state. Physical Review D, 2010, 82, .	1.6	101
102	Binary neutron-star mergers with Whisky and SACRA: First quantitative comparison of results from independent general-relativistic hydrodynamics codes. Physical Review D, 2010, 82, .	1.6	46
103	Maximal slicing ofD-dimensional spherically symmetric vacuum spacetime. Physical Review D, 2009, 80, .	1.6	5
104	Gravitational waves from black hole-neutron star binaries: Classification of waveforms. Physical Review D, 2009, 79, .	1.6	104
105	Nonconformally flat initial data for binary compact objects. Physical Review D, 2009, 80, .	1.6	41
106	Long-term general relativistic simulation of binary neutron stars collapsing to a black hole. Physical Review D, 2009, 80, .	1.6	140
107	Measuring the neutron star equation of state with gravitational wave observations. Physical Review D, 2009, 79, .	1.6	303
108	Simulating coalescing compact binaries by a new code (SACRA). Physical Review D, 2008, 78, .	1.6	152

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109	Merger of black hole and neutron star in general relativity: Tidal disruption, torus mass, and gravitational waves. Physical Review D, 2008, 77, .	1.6	99
110	Rotating black hole surrounded by self-gravitating torus in the puncture framework. Physical Review D, 2007, 76, .	1.6	61
111	Merger of binary neutron stars to a black hole: Disk mass, short gamma-ray bursts, and quasinormal mode ringing. Physical Review D, 2006, 73, .	1.6	288
112	Evolution of magnetized, differentially rotating neutron stars: Simulations in full general relativity. Physical Review D, 2006, 73, .	1.6	140
113	Magnetorotational collapse of massive stellar cores to neutron stars: Simulations in full general relativity. Physical Review D, 2006, 74, .	1.6	114
114	Collapse of Magnetized Hypermassive Neutron Stars in General Relativity. Physical Review Letters, 2006, 96, 031101.	2.9	112
115	Magnetized Hypermassive Neutron-Star Collapse: A Central Engine for Short Gamma-Ray Bursts. Physical Review Letters, 2006, 96, 031102.	2.9	92
116	Three-dimensional simulations of stellar core collapse in full general relativity: Nonaxisymmetric dynamical instabilities. Physical Review D, 2005, 71, .	1.6	103
117	Magnetohydrodynamics in full general relativity: Formulation and tests. Physical Review D, 2005, 72, .	1.6	87
118	Merger of binary neutron stars with realistic equations of state in full general relativity. Physical Review D, 2005, 71, .	1.6	279
119	Axisymmetric general relativistic hydrodynamics: Long-term evolution of neutron stars and stellar collapse to neutron stars and black holes. Physical Review D, 2003, 67, .	1.6	92
120	Collapse of Rotating Supramassive Neutron Stars to Black Holes: Fully General Relativistic Simulations. Astrophysical Journal, 2003, 595, 992-999.	1.6	58
121	Collapse of a Rotating Supermassive Star to a Supermassive Black Hole: Fully Relativistic Simulations. Astrophysical Journal, 2002, 572, L39-L43.	1.6	164
122	Evolution of three-dimensional gravitational waves: Harmonic slicing case. Physical Review D, 1995, 52, 5428-5444.	1.6	952
123	Coalescence of Spinning Binary Neutron Stars of Equal Mass: 3D Numerical Simulations. Progress of Theoretical Physics, 1992, 88, 1079-1095.	2.0	22
124	Coalescence of Spinning Binary Neutron Stars with Plunging OrbitNewtonian 3D Numerical Simulation. , 0, .		9