Lijing Shao

List of Publications by Year
in descending order

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137 papers	22,707 citations	50276 46 h-index	13379 130 g-index
137 all docs	137 docs citations	137 times ranked	13135 citing authors

#	Article	IF	Citations
1	Performance of the KAGRA detector during the first joint observation with GEOâ€‰600 (O3GK). Progress of Theoretical and Experimental Physics, 2023, 2023, .	6.6	4
2	The Variability of the Black Hole Image in M87 at the Dynamical Timescale. Astrophysical Journal, 2022, 925, 13.	4.5	6
3	Cosmology and perturbations in tachyonic massive gravity. Physical Review D, 2022, 105, .	4.7	6
4	Neutron stars in massive scalar-Gauss-Bonnet gravity: Spherical structure and time-independent perturbations. Physical Review D, 2022, 105, .	4.7	12
5	Neutron Starâ€“Neutron Star and Neutron Starâ€“Black Hole Mergers: Multiband Observations and Early Warnings. Astrophysical Journal, 2022, 926, 158.	4.5	13
6	Workshop on Gravitational-Wave Astrophysics for Early Career Scientists. Nature Astronomy, 2022, 6, 304-305.	10.1	0
7	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20
8	First Sagittarius A* Event Horizon Telescope Results. III. Imaging of the Galactic Center Supermassive Black Hole. Astrophysical Journal Letters, 2022, 930, L14.	8.3	163
9	Characterizing and Mitigating Intraday Variability: Reconstructing Source Structure in Accreting Black Holes with mm-VLBI. Astrophysical Journal Letters, 2022, 930, L21.	8.3	20
10	First Sagittarius A* Event Horizon Telescope Results. VI. Testing the Black Hole Metric. Astrophysical Journal Letters, 2022, 930, L17.	8.3	215
11	First Sagittarius A* Event Horizon Telescope Results. II. EHT and Multiwavelength Observations, Data Processing, and Calibration. Astrophysical Journal Letters, 2022, 930, L13.	8.3	142
12	First Sagittarius A* Event Horizon Telescope Results. IV. Variability, Morphology, and Black Hole Mass. Astrophysical Journal Letters, 2022, 930, L15.	8.3	137
13	Closing a spontaneous-scalarization window with binary pulsars. Classical and Quantum Gravity, 2022, 39, 11LT01.	4.0	24
14	First Sagittarius A* Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole in the Center of the Milky Way. Astrophysical Journal Letters, 2022, 930, L12.	8.3	568
15	Selective Dynamical Imaging of Interferometric Data. Astrophysical Journal Letters, 2022, 930, L18.	8.3	21
16	Millimeter Light Curves of Sagittarius A* Observed during the 2017 Event Horizon Telescope Campaign. Astrophysical Journal Letters, 2022, 930, L19.	8.3	43
17	A Universal Power-law Prescription for Variability from Synthetic Images of Black Hole Accretion Flows. Astrophysical Journal Letters, 2022, 930, L20.	8.3	20
18	First Sagittarius A* Event Horizon Telescope Results. V. Testing Astrophysical Models of the Galactic Center Black Hole. Astrophysical Journal Letters, 2022, 930, L16.	8.3	187

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19	Extending the Fisher Information Matrix in Gravitational-wave Data Analysis. Astrophysical Journal, 2022, 932, 102.	4.5	8
20	Electromagnetic follow-up observations of binary neutron star mergers with early warnings from decihertz gravitational-wave observatories. Monthly Notices of the Royal Astronomical Society, 2022, 515, 739-748.	4.4	7
21	BlackHoleCam â€" Testing general relativity with pulsars orbiting Sagittarius A. , 2022, , .		0
22	New horizons for fundamental physics with LISA. Living Reviews in Relativity, 2022, 25, .	26.7	82
23	Cosmology of Dirac-Born-Infeld-de Rham-Gabadadze-Tolley massive gravity. Physical Review D, 2022, 106, .	4.7	1
24	Overview of KAGRA: KAGRA science. Progress of Theoretical and Experimental Physics, 2021, 2021, .	6.6	31
25	Pulsar tests of the graviton mass. Astronomische Nachrichten, 2021, 342, 300-304.	1.2	3
26	Improved deep learning techniques in gravitational-wave data analysis. Physical Review D, 2021, 103, .	4.7	17
27	Precession of triaxially deformed neutron stars. Astronomische Nachrichten, 2021, 342, 364-368.	1.2	1
28	Overview of KAGRA: Calibration, detector characterization, physical environmental monitors, and the geophysics interferometer. Progress of Theoretical and Experimental Physics, 2021, 2021, .	6.6	66
29	First M87 Event Horizon Telescope Results. VII. Polarization of the Ring. Astrophysical Journal Letters, 2021, 910, L12.	8.3	215
30	Polarimetric Properties of Event Horizon Telescope Targets from ALMA. Astrophysical Journal Letters, 2021, 910, L14.	8.3	67
31	First M87 Event Horizon Telescope Results. VIII. Magnetic Field Structure near The Event Horizon. Astrophysical Journal Letters, 2021, 910, L13.	8.3	297
32	Precession of spheroids under Lorentz violation and observational consequences for neutron stars. Physical Review D, 2021, 103, .	4.7	7
33	The missing link in gravitational-wave astronomy. Experimental Astronomy, 2021, 51, 1427-1440.	3.7	15
34	Broadband Multi-wavelength Properties of M87 during the 2017 Event Horizon Telescope Campaign. Astrophysical Journal Letters, 2021, 911, L11.	8.3	56
35	Constraints on black-hole charges with the 2017 EHT observations of M87*. Physical Review D, 2021, 103, .	4.7	126
36	The Polarized Image of a Synchrotron-emitting Ring of Gas Orbiting a Black Hole. Astrophysical Journal, 2021, 912, 35.	4.5	43

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37	High angular resolution gravitational wave astronomy. Experimental Astronomy, 2021, 51, 1441-1470.	3.7	21
38	Axion induced spin effective couplings. Physical Review D, 2021, 103, .	4.7	1
39	An 86 GHz Search for Pulsars in the Galactic Center with the Atacama Large Millimeter / submillimeter Array. Astrophysical Journal, 2021, 914, 30.	4.5	13
40	Cosmological perturbations in Gauss-Bonnet quasi-dilaton massive gravity. Physical Review D, 2021, 103, .	4.7	19
41	Event Horizon Telescope observations of the jet launching and collimation in Centaurus A. Nature Astronomy, 2021, 5, 1017-1028.	10.1	65
42	NANOGrav signal from first-order confinement-deconfinement phase transition in different QCD-matter scenarios. Physical Review D, 2021, 104, .	4.7	25
43	Unveiling the gravitational universe at Î¼-Hz frequencies. Experimental Astronomy, 2021, 51, 1333-1383.	3.7	88
44	Bounding the photon mass with cosmological propagation of fast radio bursts. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 820, 136596.	4.1	13
45	Probing dipole radiation from binary neutron stars with ground-based laser-interferometer and atom-interferometer gravitational-wave observatories. Physical Review D, 2021, 104, .	4.7	11
46	Signatures of Lorentz Violation in Continuous Gravitational-Wave Spectra of Ellipsoidal Neutron Stars. Galaxies, 2021, 9, 12.	3.0	9
47	Multi-messenger astrophysics with THESEUS in the 2030s. Experimental Astronomy, 2021, 52, 245-275.	3.7	12
48	Cosmological aspects of cubic Galileon massive gravity. Physical Review D, 2021, 104, .	4.7	5
49	Stringent Tests of Gravity with Highly Relativistic Binary Pulsars in the Era of LISA and SKA. Astrophysical Journal, 2021, 921, 114.	4.5	4
50	Scalarized neutron stars in massive scalar-tensor gravity: X-ray pulsars and tidal deformability. Physical Review D, 2021, 104, .	4.7	8
51	Prospects for Detecting Exoplanets around Double White Dwarfs with LISA and Taiji. Astronomical Journal, 2021, 162, 247.	4.7	7
52	New Limits on the Lorentz/CPT Symmetry Through 50 Gravitational-wave Events. Astrophysical Journal, 2021, 921, 158.	4.5	20
53	Extended reduced-order surrogate models for scalar-tensor gravity in the strong field and applications to binary pulsars and gravitational waves. Physical Review D, 2021, 104, .	4.7	8
54	The Eccentric and Accelerating Stellar Binary Black Hole Mergers in Galactic Nuclei: Observing in Ground and Space Gravitational-wave Observatories. Astrophysical Journal, 2021, 923, 139.	4.5	11

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55	Gravitational Test beyond the First Post-Newtonian Order with the Shadow of the M87 Black Hole. Physical Review Letters, 2020, 125, 141104.	7.8	190
56	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2020, 23, 3.	26.7	447
57	Verification of Radiative Transfer Schemes for the EHT. Astrophysical Journal, 2020, 897, 148.	4.5	44
58	A revisit of PSR J1909â˜3744 with 15-yr high-precision timing. Monthly Notices of the Royal Astronomical Society, 2020, 499, 2276-2291.	4.4	22
59	Resonant instability of axionic dark matter clumps. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 038-038.	5.4	13
60	Prospects for fundamental physics with LISA. General Relativity and Gravitation, 2020, 52, 1.	2.0	198
61	Triaxially deformed freely precessing neutron stars: continuous electromagnetic and gravitational radiation. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1826-1838.	4.4	16
62	Strong-field effects in massive scalar-tensor gravity for slowly spinning neutron stars and application to x-ray pulsar pulse profiles. Physical Review D, 2020, 102, .	4.7	20
63	Combined search for anisotropic birefringence in the gravitational-wave transient catalog GWTC-1. Physical Review D, 2020, 101, .	4.7	35
64	Limiting superluminal neutrino velocity and Lorentz invariance violation by neutrino emission from the blazar TXS <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>0506</mml:mn><mml:mo>+</mml:mo><mml:mn>056</mml:mn></mml:mrow></mml:math>. Physical Review D, 2020, 102, .	4.7	8
65	New graviton mass bound from binary pulsars. Physical Review D, 2020, 102, .	4.7	20
66	Multiband observation of LIGO/Virgo binary black hole mergers in the gravitational-wave transient catalog GWTC-1. Monthly Notices of the Royal Astronomical Society, 2020, 496, 182-196.	4.4	27
67	The CPT-violating effects on neutronsâ€™ gravitational bound state. Journal of Physics G: Nuclear and Particle Physics, 2020, 47, 085002.	3.6	4
68	THEMIS: A Parameter Estimation Framework for the Event Horizon Telescope. Astrophysical Journal, 2020, 897, 139.	4.5	47
69	Neutron star structure in the minimal gravitational Standard-Model Extension and the implication to continuous gravitational waves. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020, 803, 135283.	4.1	11
70	Fundamental physics with the Square Kilometre Array. Publications of the Astronomical Society of Australia, 2020, 37, .	3.4	179
71	Validating the effective-one-body numerical-relativity waveform models for spin-aligned binary black holes along eccentric orbits. Physical Review D, 2020, 101, .	4.7	53
72	Event Horizon Telescope imaging of the archetypal blazar 3C 279 at an extreme 20 microarcsecond resolution. Astronomy and Astrophysics, 2020, 640, A69.	5.1	54

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73	SYMBA: An end-to-end VLBI synthetic data generation pipeline. Astronomy and Astrophysics, 2020, 636, A5.	5.1	18
74	The missing link in gravitational-wave astronomy: discoveries waiting in the decihertz range. Classical and Quantum Gravity, 2020, 37, 215011.	4.0	90
75	Tests of Conservation Laws in Post-Newtonian Gravity with Binary Pulsars. Astrophysical Journal, 2020, 898, 69.	4.5	6
76	Monitoring the Morphology of M87* in 2009â€“2017 with the Event Horizon Telescope. Astrophysical Journal, 2020, 901, 67.	4.5	51
77	Pulsar Tests of Gravitational Lorentz Violation. , 2020, , .		0
78	The Event Horizon General Relativistic Magnetohydrodynamic Code Comparison Project. Astrophysical Journal, Supplement Series, 2019, 243, 26.	7.7	175
79	Testing Fifth Forces from the Galactic Dark Matter. Proceedings (mdpi), 2019, 17, 3.	0.2	1
80	WALLABY early science â€“ III. An Hâ€‰i study of the spiral galaxy NGC 1566. Monthly Notices of the Royal Astronomical Society, 2019, 487, 2797-2817.	4.4	33
81	Lorentz-Violating Matter-Gravity Couplings in Small-Eccentricity Binary Pulsars. Symmetry, 2019, 11, 1098.	2.2	6
82	Reduced-order surrogate models for scalar-tensor gravity in the strong field regime and applications to binary pulsars and GW170817. Physical Review D, 2019, 100, .	4.7	22
83	Constraints on fifth forces through perihelion precession of planets. Physical Review D, 2019, 100, .	4.7	10
84	Degeneracy in studying the supranuclear equation of state and modified gravity with neutron stars. AIP Conference Proceedings, 2019, , .	0.4	15
85	Bounding the mass of graviton in a dynamic regime with binary pulsars. Physical Review D, 2019, 99, .	4.7	14
86	Gravitational-wave Merging Events from the Dynamics of Stellar-mass Binary Black Holes around the Massive Black Hole in a Galactic Nucleus. Astrophysical Journal, 2019, 877, 87.	4.5	21
87	Testing the gravitational weak equivalence principle in the standard model extension with binary pulsars. Physical Review D, 2019, 99, .	4.7	14
88	First M87 Event Horizon Telescope Results. III. Data Processing and Calibration. Astrophysical Journal Letters, 2019, 875, L3.	8.3	519
89	First M87 Event Horizon Telescope Results. II. Array and Instrumentation. Astrophysical Journal Letters, 2019, 875, L2.	8.3	618
90	First M87 Event Horizon Telescope Results. IV. Imaging the Central Supermassive Black Hole. Astrophysical Journal Letters, 2019, 875, L4.	8.3	806

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91	First M87 Event Horizon Telescope Results. I. The Shadow of the Supermassive Black Hole. Astrophysical Journal Letters, 2019, 875, L1.	8.3	2,264
92	First M87 Event Horizon Telescope Results. V. Physical Origin of the Asymmetric Ring. Astrophysical Journal Letters, 2019, 875, L5.	8.3	814
93	First M87 Event Horizon Telescope Results. VI. The Shadow and Mass of the Central Black Hole. Astrophysical Journal Letters, 2019, 875, L6.	8.3	897
94	Constraints on millicharged dark matter and axionlike particles from timing of radio waves. Physical Review D, 2019, 100, .	4.7	49
95	On the properties of the massive binary black hole merger GW170729. Physical Review D, 2019, 100, .	4.7	82
96	A wide starâ€“black-hole binary system from radial-velocity measurements. Nature, 2019, 575, 618-621.	27.8	142
97	Observatory science with eXTP. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	50
98	Accretion in strong field gravity with eXTP. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	27
99	Testing velocity-dependent <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>C</mml:mi><mml:mi>P</mml:mi><mml:mi>T</mml:mi></mml:mrow></mml:math> -violating gravitational forces with radio pulsars. Physical Review D, 2018, 98, .	4.7	23
100	Testing the Universality of Free Fall towards Dark Matter with Radio Pulsars. Physical Review Letters, 2018, 120, 241104.	7.8	16
101	Improved effective-one-body model of spinning, nonprecessing binary black holes for the era of gravitational-wave astrophysics with advanced detectors. Physical Review D, 2017, 95, .	4.7	401
102	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101.	7.8	1,600
103	Effective action model of dynamically scalarizing binary neutron stars. Physical Review D, 2017, 96, .	4.7	26
104	Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Cross-correlation Search in Advanced LIGO Data. Astrophysical Journal, 2017, 847, 47.	4.5	46
105	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. Physical Review Letters, 2017, 119, 161101.	7.8	6,413
106	An independent test on the local position invariance of gravity with the triple pulsar PSR J0337â€‰â€‰+â€‰â€‰1715. Classical and Quantum Gravity, 2017, 34, 175011.	4.0	2
107	Bayesian framework to constrain the photon mass with a catalog of fast radio bursts. Physical Review D, 2017, 95, .	4.7	35
108	Constraining Nonperturbative Strong-Field Effects in Scalar-Tensor Gravity by Combining Pulsar Timing and Laser-Interferometer Gravitational-Wave Detectors. Physical Review X, 2017, 7, .	8.9	72

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109	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. Physical Review Letters, 2017, 118, 221101.	7.8	1,987
110	Experimental Studies on the Lorentz Symmetry in Post-Newtonian Gravity with Pulsars. Universe, 2016, 2, 29.	2.5	2
111	Tests of gravitational symmetries with radio pulsars. Science China: Physics, Mechanics and Astronomy, 2016, 59, 1.	5.1	45
112	Testing the strong equivalence principle with the triple pulsar PSR<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">J</mml:mi><mml:mn>0337</mml:mn><mml:mo mathvariant="bold">+</mml:mo><mml:mn>1715</mml:mn></mml:mrow></mml:math>. Physical Review D, 2016, 93, .	4.7	34
113	GW150914 and gravitational-wave astronomy. Chinese Science Bulletin, 2016, 61, 1502-1524.	0.7	4
114	NEW TESTS OF LOCAL LORENTZ INVARIANCE AND LOCAL POSITION INVARIANCE OF GRAVITY WITH PULSARS. , 2015, , .		2
115	Gravitational Wave Astronomy with the SKA. , 2015, , .		174
116	Testing Gravity with Pulsars in the SKA Era. , 2015, , .		17
117	New pulsar limit on local Lorentz invariance violation of gravity in the standard-model extension. Physical Review D, 2014, 90, .	4.7	48
118	Tests of Local Lorentz Invariance Violation of Gravity in the Standard Model Extension with Pulsars. Physical Review Letters, 2014, 112, 111103.	7.8	81
119	A new limit on local Lorentz invariance violation of gravity from solitary pulsars. Classical and Quantum Gravity, 2013, 30, 165019.	4.0	91
120	New limits on the violation of local position invariance of gravity. Classical and Quantum Gravity, 2013, 30, 165020.	4.0	40
121	New tests of local Lorentz invariance of gravity with small-eccentricity binary pulsars. Classical and Quantum Gravity, 2012, 29, 215018.	4.0	81
122	New Constraints on Preferred Frame Effects from Binary Pulsars. Proceedings of the International Astronomical Union, 2012, 8, 496-498.	0.0	1
123	Octet quark contents from SU(3) flavor symmetry. Europhysics Letters, 2011, 94, 31001.	2.0	1
124	Note on a new fundamental length scale l instead of the Newtonian constant G. Science China: Physics, Mechanics and Astronomy, 2011, 54, 1771-1774.	5.1	7
125	Photon gas thermodynamics in doubly special relativity. Astroparticle Physics, 2011, 34, 840-845.	4.3	30
126	Lorentz-violation-induced vacuum birefringence and its astrophysical consequences. Physical Review D, 2011, 83, .	4.7	22

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127	Eikonal equation of the Lorentz-violating Maxwell theory. European Physical Journal C, 2010, 70, 1153-1164.	3.9	8
128	Lorentz violation from cosmological objects with very high energy photon emissions. Astroparticle Physics, 2010, 33, 312-315.	4.3	74
129	Sea quark contents of octet baryons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2010, 686, 136-140.	4.1	18
130	The significant digit law in statistical physics. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3109-3116.	2.6	24
131	Empirical mantissa distributions of pulsars. Astroparticle Physics, 2010, 33, 255-262.	4.3	22
132	LORENTZ VIOLATION EFFECTS ON ASTROPHYSICAL PROPAGATION OF VERY HIGH ENERGY PHOTONS. Modern Physics Letters A, 2010, 25, 3251-3266.	1.2	37
133	First-digit law in nonextensive statistics. Physical Review E, 2010, 82, 041110.	2.1	12
134	FIRST DIGIT DISTRIBUTION OF HADRON FULL WIDTH. Modern Physics Letters A, 2009, 24, 3275-3282.	1.2	23
135	Nuclear EMC effect in a statistical model. Nuclear Physics A, 2009, 828, 390-400.	1.5	20
136	Statistical effect in the parton distribution functions of the nucleon. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 671, 30-35.	4.1	40
137	Rotation and deformation of strangeon stars in the Lennard-Jones model. Monthly Notices of the Royal Astronomical Society, 0, , .	4.4	13