Hisa-aki Shinkai

List of Publications by Year
in descending order

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85 papers	4,111 citations	185998 28 h-index	114278 63 g-index
87 all docs	87 docs citations	87 times ranked	3513 citing authors

#	Article	IF	Citations
1	The Japanese space gravitational wave antenna: DECIGO. Classical and Quantum Gravity, 2011, 28, 094011.	1.5	456
2	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2020, 23, 3.	8.2	447
3	The Japanese space gravitational wave antennaâ€"DECIGO. Classical and Quantum Gravity, 2006, 23, S125-S131.	1.5	388
4	KAGRA: 2.5 generation interferometric gravitational wave detector. Nature Astronomy, 2019, 3, 35-40.	4.2	331
5	Test of general relativity by a pair of transportable optical lattice clocks. Nature Photonics, 2020, 14, 411-415.	15.6	244
6	Overview of KAGRA: Detector design and construction history. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	198
7	Fate of the first traversible wormhole: Black-hole collapse or inflationary expansion. Physical Review D, 2002, 66, .	1.6	154
8	Current status of space gravitational wave antenna DECIGO and B-DECIGO. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	150
9	The status of DECIGO. Journal of Physics: Conference Series, 2017, 840, 012010.	0.3	148
10	Charged brane-world black holes. Physical Review D, 2001, 63, .	1.6	123
11	Gravitational-wave physics and astronomy in the 2020s and 2030s. Nature Reviews Physics, 2021, 3, 344-366.	11.9	96
12	Towards standard testbeds for numerical relativity. Classical and Quantum Gravity, 2004, 21, 589-613.	1.5	87
13	Construction of KAGRA: an underground gravitational-wave observatory. Progress of Theoretical and Experimental Physics, 2018, 2018, .	1.8	73
14	Space gravitational-wave antennas DECIGO and B-DECIGO. International Journal of Modern Physics D, 2019, 28, 1845001.	0.9	73
15	Overview of KAGRA: Calibration, detector characterization, physical environmental monitors, and the geophysics interferometer. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	66
16	Wormholes in higher dimensional space-time: Exact solutions and their linear stability analysis. Physical Review D, 2013, 88, .	1.6	50
17	Dynamics of topological defects and inflation. Physical Review D, 1996, 53, 655-661.	1.6	49
18	Upper limits from the LIGO and TAMA detectors on the rate of gravitational-wave bursts. Physical Review D, 2005, 72, .	1.6	49

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19	The Japanese space gravitational wave antenna - DECIGO. Journal of Physics: Conference Series, 2008, 122, 012006.	0.3	46
20	First cryogenic test operation of underground km-scale gravitational-wave observatory KAGRA. Classical and Quantum Gravity, 2019, 36, 165008.	1.5	45
21	Joint LIGO and TAMA300 search for gravitational waves from inspiralling neutron star binaries. Physical Review D, 2006, 73, .	1.6	40
22	DECIGO and DECIGO pathfinder. Classical and Quantum Gravity, 2010, 27, 084010.	1.5	39
23	The Japanese space gravitational wave antenna; DECIGO. Journal of Physics: Conference Series, 2008, 120, 032004.	0.3	34
24	Comparison of various methods to extract ringdown frequency from gravitational wave data. Physical Review D, 2019, 99, .	1.6	32
25	Overview of KAGRA: KAGRA science. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	31
26	DECIGO: The Japanese space gravitational wave antenna. Journal of Physics: Conference Series, 2009, 154, 012040.	0.3	30
27	Generation of scalar-tensor gravity effects in equilibrium state boson stars. Classical and Quantum Gravity, 1998, 15, 669-688.	1.5	28
28	Advantages of a modified ADM formulation: Constraint propagation analysis of the Baumgarte-Shapiro-Shibata-Nakamura system. Physical Review D, 2002, 66, .	1.6	28
29	Gravitational Waves from Merging Intermediateâ€Mass Black Holes. Astrophysical Journal, 2004, 614, 864-868.	1.6	28
30	Constraint propagation ofC2-adjusted formulation: Another recipe for robust ADM evolution system. Physical Review D, 2011, 83, .	1.6	25
31	Hyperbolic formulations and numerical relativity: experiments using Ashtekar's connection variables. Classical and Quantum Gravity, 2000, 17, 4799-4822.	1.5	24
32	Observation results by the TAMA300 detector on gravitational wave bursts from stellar-core collapses. Physical Review D, 2005, 71, .	1.6	24
33	Symmetric Hyperbolic System in the Ashtekar Formulation. Physical Review Letters, 1999, 82, 263-266.	2.9	23
34	Hyperbolic formulations and numerical relativity: II. asymptotically constrained systems of Einstein equations. Classical and Quantum Gravity, 2001, 18, 441-462.	1.5	23
35	N+1formalism in Einstein-Gauss-Bonnet gravity. Physical Review D, 2008, 78, .	1.6	23
36	Characteristics of ablation plasma produced by pulsed light ion beam interaction with targets and applications to materials science. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 415, 533-538.	0.7	21

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37	A`3+1' method for finding principal null directions. Classical and Quantum Gravity, 1995, 12, 133-140.	1.5	20
38	Gravitational waves in Brans-Dicke theory: Analysis by test particles around a Kerr black hole. Physical Review D, 1997, 56, 785-797.	1.6	20
39	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	1.8	20
40	Constraint propagation in the family of ADM systems. Physical Review D, 2001, 63, .	1.6	19
41	DECIGO pathfinder. Classical and Quantum Gravity, 2009, 26, 094019.	1.5	18
42	Adjusted ADM systems and their expected stability properties: constraint propagation analysis in Schwarzschild spacetime. Classical and Quantum Gravity, 2002, 19, 1027-1049.	1.5	17
43	Trick for passing degenerate points in the Ashtekar formulation. Physical Review D, 1997, 56, 2086-2093.	1.6	14
44	The Current Status and Future Prospects of KAGRA, the Large-Scale Cryogenic Gravitational Wave Telescope Built in the Kamioka Underground. Galaxies, 2022, 10, 63.	1.1	13
45	Constraints and reality conditions in the Ashtekar formulation of general relativity. Classical and Quantum Gravity, 1996, 13, 783-790.	1.5	12
46	Dynamical evolution of boson stars in Brans-Dicke theory. Physical Review D, 1998, 58, .	1.6	12
47	The status of KAGRA underground cryogenic gravitational wave telescope. Journal of Physics: Conference Series, 2020, 1342, 012014.	0.3	12
48	Results of the search for inspiraling compact star binaries from TAMA300â€™s observation in 2000â€“2004. Physical Review D, 2006, 74, .	1.6	11
49	Formation of naked singularities in five-dimensional space-time. Physical Review D, 2011, 83, .	1.6	11
50	Can gravitational waves prevent inflation?. Physical Review D, 1993, 48, 3910-3913.	1.6	10
51	An arm length stabilization system for KAGRA and future gravitational-wave detectors. Classical and Quantum Gravity, 2020, 37, 035004.	1.5	10
52	Vibration isolation system with a compact damping system for power recycling mirrors of KAGRA. Classical and Quantum Gravity, 2019, 36, 095015.	1.5	9
53	INO: Interplanetary network of optical lattice clocks. International Journal of Modern Physics D, 2020, 29, 1940002.	0.9	9
54	Fate of the Kaluza-Klein bubble. Physical Review D, 2000, 62, .	1.6	8

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55	Quasispherical approximation for rotating black holes. Physical Review D, 2001, 64, .	1.6	8
56	Formulations of the Einstein Equations for Numerical Simulations. Journal of the Korean Physical Society, 2009, 54, 2513-2528.	0.3	8
57	Black objects and hoop conjecture in five-dimensional space-time. Classical and Quantum Gravity, 2010, 27, 045012.	1.5	8
58	Gravitational Waves from Merging Intermediate-mass Black Holes. II. Event Rates at Ground-based Detectors. Astrophysical Journal, 2017, 835, 276.	1.6	8
59	Nonlinear dynamics in the Einstein-Gauss-Bonnet gravity. Physical Review D, 2017, 96, .	1.6	8
60	Asymptotically constrained and real-valued system based on Ashtekarâ€™s variables. Physical Review D, 1999, 60, .	1.6	7
61	CONSTRUCTING HYPERBOLIC SYSTEMS IN THE ASHTEKAR FORMULATION OF GENERAL RELATIVITY. International Journal of Modern Physics D, 2000, 09, 13-34.	0.9	7
62	Letter: Constraint Propagation in (N + 1)-Dimensional Space-Time. General Relativity and Gravitation, 2004, 36, 1931-1937.	0.7	7
63	Application of independent component analysis to the iKAGRA data. Progress of Theoretical and Experimental Physics, 2020, 2020, .	1.8	7
64	Vibration isolation systems for the beam splitter and signal recycling mirrors of the KAGRA gravitational wave detector. Classical and Quantum Gravity, 2021, 38, 065011.	1.5	7
65	Diagonalizability of constraint propagation matrices. Classical and Quantum Gravity, 2003, 20, L31-L36.	1.5	6
66	Numerical experiments of adjusted Baumgarte-Shapiro-Shibata-Nakamura systems for controlling constraint violations. Physical Review D, 2008, 77, .	1.6	6
67	Generality of inflation in a planar universe. Physical Review D, 1994, 49, 6367-6378.	1.6	5
68	Truncated post-Newtonian neutron star model. Physical Review D, 1999, 60, .	1.6	5
69	DECIGO pathfinder. Journal of Physics: Conference Series, 2008, 120, 032005.	0.3	5
70	Constraint propagation ofC2-adjusted formulation. II. Another recipe for robust Baumgarte-Shapiro-Shibata-Nakamura evolution system. Physical Review D, 2012, 85, .	1.6	4
71	Performance of the KAGRA detector during the first joint observation with GEOâ€‰600 (O3GK). Progress of Theoretical and Experimental Physics, 2023, 2023, .	1.8	4
72	Wormhole Dynamics. Journal of Physics: Conference Series, 2015, 574, 012056.	0.3	3

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73	Prospects for improving the sensitivity of KAGRA gravitational wave detector. , 2022, , .		3
74	Bistability in an Ising model with non-Hamiltonian dynamics. Physical Review B, 1992, 45, 5707-5709.	1.1	2
75	Gravitational Waves from Merging Intermediate-Mass Black-Holes. Progress of Theoretical Physics Supplement, 2004, 155, 415-416.	0.2	2
76	Wormhole in higher-dimensional space-time. Journal of Physics: Conference Series, 2015, 600, 012038.	0.3	2
77	Radiative Cooling of the Thermally Isolated System in KAGRA Gravitational Wave Telescope. Journal of Physics: Conference Series, 2021, 1857, 012002.	0.3	1
78	LIGO, VIRGO, and KAGRA as the International Gravitational Wave Network. , 2021, , 1-21.		1
79	Gravitational waves in expanding universe with cosmological constant. New Astronomy Reviews, 1993, 37, 449-452.	0.3	0
80	NUMERICAL INVESTIGATION OF FIVE-DIMENSIONAL GRAVITATIONAL COLLAPSES. International Journal of Modern Physics Conference Series, 2012, 07, 148-157.	0.7	0
81	Colliding scalar pulses in the Einstein-Gauss-Bonnet gravity. EPJ Web of Conferences, 2018, 168, 04014.	0.1	0
82	Event Rates of Gravitational Waves from merging Intermediate mass Black Holes: based on a Runaway Path to a SMBH. EPJ Web of Conferences, 2018, 168, 05002.	0.1	0
83	Dynamical Evolution of Boson Stars. Astrophysics and Space Science Library, 1999, , 289-290.	1.0	0
84	NUMERICAL STUDY OF FIVE-DIMENSIONAL GRAVITATIONAL COLLAPSES. , 2015, , .		0
85	LIGO, VIRGO, and KAGRA as the International Gravitational Wave Network. , 2022, , 1205-1225.		0