Takeshi Chiba

List of Publications by Year
in descending order

94 papers	6,732 citations	101543 36 h-index	58581 82 g-index
95 all docs	95 docs citations	95 times ranked	3104 citing authors

#	Article	IF	Citations
1	Kinetically driven quintessence. Physical Review D, 2000, 62, .	4.7	1,163
2	1/R gravity and scalar-tensor gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 575, 1-3.	4.1	570
3	The Japanese space gravitational wave antenna: DECIGO. Classical and Quantum Gravity, 2011, 28, 094011.	4.0	456
4	The Japanese space gravitational wave antennaâ€"DECIGO. Classical and Quantum Gravity, 2006, 23, S125-S131.	4.0	388
5	Quintessence, the gravitational constant, and gravity. Physical Review D, 1999, 60, .	4.7	286
6	Solar System constraints to generalf(R)gravity. Physical Review D, 2007, 75, .	4.7	283
7	Trackingk-essence. Physical Review D, 2002, 66, .	4.7	204
8	Current status of space gravitational wave antenna DECIGO and B-DECIGO. Progress of Theoretical and Experimental Physics, 2021, 2021, .	6.6	150
9	The status of DECIGO. Journal of Physics: Conference Series, 2017, 840, 012010.	0.4	148
10	Generalized gravity and a ghost. Journal of Cosmology and Astroparticle Physics, 2005, 2005, 008-008.	5.4	138
11	The Luminosity Distance, the Equation of State, and the Geometry of the Universe. Progress of Theoretical Physics, 1998, 100, 1077-1082.	2.0	137
12	Black hole binary formation in the expanding universe: Three body problem approximation. Physical Review D, 1998, 58, .	4.7	123
13	Determining the equation of state of the expanding Universe: inverse problem in cosmology. Monthly Notices of the Royal Astronomical Society, 1999, 306, 696-700.	4.4	105
14	Shadows of multi-black holes: Analytic exploration. Physical Review D, 2012, 86, .	4.7	103
15	Conformal-frame (in)dependence of cosmological observations in scalar-tensor theory. Journal of Cosmology and Astroparticle Physics, 2013, 2013, 040-040.	5.4	101
16	Reheating after quintessential inflation and gravitational waves. Classical and Quantum Gravity, 2004, 21, 1761-1771.	4.0	100
17	wandwâ€²of scalar field models of dark energy. Physical Review D, 2006, 73, .	4.7	92
18	Precision calculations of the gravitational wave background spectrum from inflation. Physical Review D, 2009, 79, .	4.7	87

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19	Feasibility of reconstructing the quintessential potential using type Ia supernova data. Physical Review D, 2000, 62, .	4.7	78
20	Quintessence Cosmology and Varying Â. Progress of Theoretical Physics, 2002, 107, 631-636.	2.0	77
21	Search for a Stochastic Background of 100-MHz Gravitational Waves with Laser Interferometers. Physical Review Letters, 2008, 101, 101101.	7.8	77
22	Probing the Universe through the stochastic gravitational wave background. Journal of Cosmology and Astroparticle Physics, 2018, 2018, 038-038.	5.4	77
23	Observational constraints on quintessence: Thawing, tracker, and scaling models. Physical Review D, 2013, 87, .	4.7	73
24	Space gravitational-wave antennas DECIGO and B-DECIGO. International Journal of Modern Physics D, 2019, 28, 1845001.	2.1	73
25	WMAP constraints on scalar-tensor cosmology and the variation of the gravitational constant. Physical Review D, 2004, 69, .	4.7	72
26	Extended slow-roll conditions and rapid-roll conditions. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 021.	5.4	72
27	Laser-interferometric detectors for gravitational wave backgrounds at 100ÂMHz: Detector design and sensitivity. Physical Review D, 2008, 77, .	4.7	70
28	Scalar gravitational wave from Oppenheimer-Snyder collapse in scalar-tensor theories of gravity. Physical Review D, 1997, 55, 2024-2037.	4.7	68
29	The Constancy of the Constants of Nature: Updates. Progress of Theoretical Physics, 2011, 126, 993-1019.	2.0	68
30	Slow-roll k-essence. Physical Review D, 2009, 80, .	4.7	62
31	Observational tests of x-matter models. Monthly Notices of the Royal Astronomical Society, 1998, 301, 72-80.	4.4	58
32	Slow-roll thawing quintessence. Physical Review D, 2009, 79, .	4.7	58
33	Spin distribution of primordial black holes. Progress of Theoretical and Experimental Physics, 2017, 2017, .	6.6	54
34	Extended quintessence and its late-time domination. Physical Review D, 2001, 64, .	4.7	47
35	Baryogenesis in a Flat Direction with Neither Baryon nor Lepton Charge. Physical Review Letters, 2004, 92, 011301.	7.8	42
36	DECIGO and DECIGO pathfinder. Classical and Quantum Gravity, 2010, 27, 084010.	4.0	39

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37	Observational consequences of the evolution of primordial fluctuations in scalar-tensor cosmology. Physical Review D, 2002, 66, .	4.7	36
38	Scalar-tensor gravity in a two 3-brane system. Physical Review D, 2000, 62, .	4.7	33
39	Consistency relation in cosmology. Physical Review D, 2007, 75, .	4.7	33
40	Shadows of colliding black holes. Physical Review D, 2011, 84, .	4.7	33
41	Disappearance of Black Hole Criticality in Semiclassical General Relativity. Modern Physics Letters A, 1997, 12, 709-718.	1.2	32
42	Reconstructing the inflaton potential from the spectral index. Progress of Theoretical and Experimental Physics, 2015, 2015, 073E02.	6.6	32
43	DECIGO: The Japanese space gravitational wave antenna. Journal of Physics: Conference Series, 2009, 154, 012040.	0.4	30
44	Cylindrical Dust Collapse in General Relativity: Toward Higher Dimensional Collapse. Progress of Theoretical Physics, 1996, 95, 321-338.	2.0	29
45	Extended slow-roll conditions and primordial fluctuations: multiple scalar fields and generalized gravity. Journal of Cosmology and Astroparticle Physics, 2009, 2009, 019-019.	5.4	29
46	Implications of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>B</mml:mi></mml:math>-mode polarization measurement for direct detection of inflationary gravitational waves. Physical Review D, 2014, 90, .	4.7	29
47	Motion of charged particles around a weakly magnetized rotating black hole. Physical Review D, 2014, 90, .	4.7	29
48	Weak Lensing of Galaxy Clusters in Modified Newtonian Dynamics. Astrophysical Journal, 2007, 671, 45-52.	4.5	28
49	A note on geodesics in the Hayward metric. Progress of Theoretical and Experimental Physics, 2017, 2017, .	6.6	27
50	Gravitational Lens Statistics and the Density Profile of Dark Halos. Astrophysical Journal, 2001, 563, 489-496.	4.5	27
51	Hoop conjecture for apparent horizon formation. Classical and Quantum Gravity, 1994, 11, 431-441.	4.0	25
52	Critical Behavior in the Brans-Dicke Theory of Gravitation. Progress of Theoretical Physics, 1996, 96, 567-574.	2.0	25
53	Chapter 6. Gravitational Physics in Scalar-Tensor Theories. Progress of Theoretical Physics Supplement, 1997, 128, 335-372.	0.1	23
54	Equation of state of tracker fields. Physical Review D, 2010, 81, .	4.7	22

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55	Prospects for direct detection of inflationary gravitational waves by next generation interferometric detectors. Physical Review D, 2011, 83, .	4.7	22
56	Planck constraints on scalar-tensor cosmology and the variation of the gravitational constant. Physical Review D, 2016, 93, .	4.7	22
57	Time variation of the proton-electron mass ratio and the fine structure constant with a runaway dilaton. Physical Review D, 2007, 75, .	4.7	21
58	Extended open inflation. Physical Review D, 1999, 61, .	4.7	20
59	Initial conditions for vector inflation. Journal of Cosmology and Astroparticle Physics, 2008, 2008, 004.	5.4	20
60	Cosmological constraints on scalarâ€“tensor gravity and the variation of the gravitational constant. Progress of Theoretical and Experimental Physics, 2017, 2017, .	6.6	20
61	DECIGO pathfinder. Classical and Quantum Gravity, 2009, 26, 094019.	4.0	18
62	Imprints of the metrically coupled dilaton on density perturbations in inflationary cosmology. Nuclear Physics B, 1998, 530, 304-324.	2.5	17
63	Gravitational waves from<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>-ball formation. Physical Review D, 2010, 81, .	4.7	17
64	Slow-roll extended quintessence. Physical Review D, 2010, 81, .	4.7	15
65	Cosmological scaling solutions for multiple scalar fields. Physical Review D, 2014, 90, .	4.7	14
66	Classifying the future of universes with dark energy. Classical and Quantum Gravity, 2005, 22, 3745-3758.	4.0	13
67	Runaway domain wall and space-time varying Î±. Journal of Cosmology and Astroparticle Physics, 2011, 2011, 044-044.	5.4	13
68	Disformal invariance of cosmological observables. Journal of Cosmology and Astroparticle Physics, 2020, 2020, 003-003.	5.4	12
69	Apparent horizon formation and hoop conjecture in nonaxisymmetric spaces. Physical Review D, 1999, 60, .	4.7	10
70	Supernova Cosmology and the Fine Structure Constant. Progress of Theoretical Physics, 2003, 110, 195-199.	2.0	9
71	Effective search templates for a primordial stochastic gravitational wave background. Physical Review D, 2007, 76, .	4.7	9
72	Fate of thermal log typeQballs. Physical Review D, 2010, 82, .	4.7	9

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73	The Hubble Parameter in a Void Universe: Effect of the Peculiar Velocity. Astrophysical Journal, 1995, 453, 541.	4.5	9
74	Numerical study of inhomogeneous pre-big-bang inflationary cosmology. Physical Review D, 1999, 59, .	4.7	8
75	Lens Model Degeneracy and Cosmological Tests by Strong Gravitational Lensing. Progress of Theoretical Physics, 2002, 107, 625-630.	2.0	8
76	A Null Test of the Cosmological Constant. Progress of Theoretical Physics, 2007, 118, 815-819.	2.0	8
77	Optimal location of two laser-interferometric detectors for gravitational wave backgrounds at 100 MHz. Classical and Quantum Gravity, 2008, 25, 225011.	4.0	8
78	Determining the Equation of State of the Expanding Universe Using a New Independent Variable. Astrophysical Journal, 2001, 550, 1-6.	4.5	7
79	Cosmic hoop conjecture?. Physical Review D, 1994, 50, 4903-4913.	4.7	6
80	Anisotropy of the cosmic background radiation implies the violation of the strong energy condition in Bianchi type I universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 408, 47-51.	4.1	6
81	Prohibition of large inhomogeneity in the preinflationary stage. Physical Review D, 1994, 49, 3886-3892.	4.7	5
82	Generality of inflation and constraints on scalar - tensor theories of gravity. Classical and Quantum Gravity, 1997, 14, 2951-2961.	4.0	5
83	Spontaneous scalarization in scalarâ€“tensor theories with conformal symmetry as an attractor. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	5
84	Applying gradient expansion to a perfect fluid and higher dimensions. General Relativity and Gravitation, 1996, 28, 1089-1106.	2.0	4
85	Two boosted black holes in asymptotically de Sitter space-time: Relation between mass and apparent horizon formation. Physical Review D, 1998, 57, 6119-6126.	4.7	4
86	Does positronium form in the universe?. Journal of Cosmology and Astroparticle Physics, 2004, 2004, 003-003.	5.4	4
87	Numerical solutions of inflating higher dimensional global defects. Physical Review D, 2005, 71, .	4.7	4
88	Reply to â€œComment on â€˜Solar System constraints to generalf(R)gravityâ€™â€• Physical Review D, 2008, 77, .	4.7	3
89	Reconstructing $f(R)$ gravity from the spectral index. Progress of Theoretical and Experimental Physics, 2018, 2018, .	6.6	3
90	The effect of our local motion on the Sandageâ€“Loeb test of the cosmic expansion. Publication of the Astronomical Society of Japan, 2020, 72, .	2.5	3

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91	The Minimum Mass of the First Stars and the Anthropic Pinciple. Progress of Theoretical Physics, 1997, 97, 169-171.	2.0	2
92	Resolving the singularity of the Hawkingâ€“Turok type instanton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 442, 59-62.	4.1	1
93	Feasibility of reconstructing the quintessential potential using SNIa data. AIP Conference Proceedings, 2001, , .	0.4	1
94	Reconstructing the inflaton potential from the spectral index. , 2017, , .		0