

Hajime Sotani

List of Publications by Year in descending order

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87
papers

3,873
citations

172207

29
h-index

123241

61
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88
all docs

88
docs citations

88
times ranked

2649
citing authors

#	ARTICLE	IF	CITATIONS
1	Testing general relativity with present and future astrophysical observations. <i>Classical and Quantum Gravity</i> , 2015, 32, 243001.	1.5	943
2	The Japanese space gravitational wave antenna: DECIGO. <i>Classical and Quantum Gravity</i> , 2011, 28, 094011.	1.5	456
3	The Japanese space gravitational wave antenna“DECIGO. <i>Classical and Quantum Gravity</i> , 2006, 23, S125-S131.	1.5	388
4	Probing strong-field scalar-tensor gravity with gravitational wave asteroseismology. <i>Physical Review D</i> , 2004, 70, .	1.6	105
5	Restricting quark matter models by gravitational wave observation. <i>Physical Review D</i> , 2004, 69, .	1.6	99
6	Probing the Equation of State of Nuclear Matter via Neutron Star Asteroseismology. <i>Physical Review Letters</i> , 2012, 108, 201101.	2.9	98
7	Density discontinuity of a neutron star and gravitational waves. <i>Physical Review D</i> , 2001, 65, .	1.6	94
8	Signatures of hadron-quark mixed phase in gravitational waves. <i>Physical Review D</i> , 2011, 83, .	1.6	87
9	Stellar oscillations in scalar-tensor theory of gravity. <i>Physical Review D</i> , 2005, 71, .	1.6	80
10	Space gravitational-wave antennas DECIGO and B-DECIGO. <i>International Journal of Modern Physics D</i> , 2019, 28, 1845001.	0.9	73
11	Strong gravitational lensing by an electrically charged black hole in Eddington-inspired Born-Infeld gravity. <i>Physical Review D</i> , 2015, 92, .	1.6	60
12	Slowly rotating relativistic stars in scalar-tensor gravity. <i>Physical Review D</i> , 2012, 86, .	1.6	58
13	Nonradial oscillations of quark stars. <i>Physical Review D</i> , 2003, 68, .	1.6	56
14	Possible constraints on the density dependence of the nuclear symmetry energy from quasi-periodic oscillations in soft gamma repeaters. <i>Monthly Notices of the Royal Astronomical Society</i> , 2013, 434, 2060-2068.	1.6	56
15	NR/HEP: roadmap for the future. <i>Classical and Quantum Gravity</i> , 2012, 29, 244001.	1.5	50
16	Properties of an electrically charged black hole in Eddington-inspired Born-Infeld gravity. <i>Physical Review D</i> , 2014, 90, .	1.6	48
17	Alfvén polar oscillations of relativistic stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 2009, 395, 1163-1172.	1.6	46
18	Gravitational wave asteroseismology with protoneutron stars. <i>Physical Review D</i> , 2016, 94, .	1.6	46

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19	Structure of neutron stars in tensor-vector-scalar theory. <i>Physical Review D</i> , 2008, 78, .	1.6	43
20	Constraints on pasta structure of neutron stars from oscillations in giant flares. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2011, 417, L70-L73.	1.2	42
21	Possible identifications of newly observed magnetar quasi-periodic oscillations as crustal shear modes. <i>New Astronomy</i> , 2016, 43, 80-86.	0.8	40
22	Maximum mass limit of neutron stars in scalar-tensor gravity. <i>Physical Review D</i> , 2017, 95, .	1.6	38
23	Scalar gravitational waves from relativistic stars in scalar-tensor gravity. <i>Physical Review D</i> , 2014, 89, .	1.6	36
24	Stellar oscillations in tensor-vector-scalar theory. <i>Physical Review D</i> , 2009, 79, .	1.6	35
25	Constraints on the nuclear equation of state and the neutron star structure from crustal torsional oscillations. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 479, 4735-4748.	1.6	35
26	Low-mass neutron stars: universal relations, the nuclear symmetry energy and gravitational radiation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2016, 459, 4378-4388.	1.6	34
27	Probing mass-radius relation of protoneutron stars from gravitational-wave asteroseismology. <i>Physical Review D</i> , 2017, 96, .	1.6	34
28	Probing nuclear bubble structure via neutron star asteroseismology. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 464, 3101-3107.	1.6	33
29	Stellar oscillations in Eddington-inspired Born-Infeld gravity. <i>Physical Review D</i> , 2014, 89, .	1.6	31
30	Observational discrimination of Eddington-inspired Born-Infeld gravity from general relativity. <i>Physical Review D</i> , 2014, 89, .	1.6	31
31	Probing tensor-vector-scalar theory with gravitational wave asteroseismology. <i>Physical Review D</i> , 2009, 80, .	1.6	29
32	Dependence of the outer boundary condition on protoneutron star asteroseismology with gravitational-wave signatures. <i>Physical Review D</i> , 2019, 99, .	1.6	27
33	Torsional oscillations of neutron stars in scalar-tensor theory of gravity. <i>Physical Review D</i> , 2014, 90, .	1.6	24
34	Dimension dependence of numerical simulations on gravitational waves from protoneutron stars. <i>Physical Review D</i> , 2020, 102, .	1.6	24
35	Astrophysical implications of double-layer torsional oscillations in a neutron star crust as a lasagna sandwich. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	1.6	23
36	Determination of properties of protoneutron stars toward black hole formation via gravitational wave observations. <i>Physical Review D</i> , 2019, 100, .	1.6	22

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37	Universal relations between the quasinormal modes of neutron star and tidal deformability. <i>Physical Review D</i> , 2021, 104, .	1.6	21
38	Pulse profiles of highly compact pulsars in general relativity. <i>Physical Review D</i> , 2018, 98, .	1.6	20
39	Massive hybrid quark stars with strong magnetic field. <i>Monthly Notices of the Royal Astronomical Society</i> , 2015, 447, 3155-3161.	1.6	17
40	Probing crustal structures from neutron star compactness. <i>Monthly Notices of the Royal Astronomical Society</i> , 2017, 470, 4397-4407.	1.6	17
41	Avoided crossing in gravitational wave spectra from protoneutron star. <i>Monthly Notices of the Royal Astronomical Society</i> , 2020, 498, 3503-3512.	1.6	17
42	Accuracy of the relativistic Cowling approximation in protoneutron star asteroseismology. <i>Physical Review D</i> , 2020, 102, .	1.6	17
43	Universal relation for supernova gravitational waves. <i>Physical Review D</i> , 2021, 104, .	1.6	17
44	Shear oscillations in the hadron-quark mixed phase. <i>Nuclear Physics A</i> , 2013, 906, 37-49.	0.6	16
45	Effect of nuclear saturation parameters on a possible maximum mass of neutron stars. <i>Physical Review C</i> , 2017, 95, .	1.1	16
46	Pulse profiles from a pulsar in scalar-tensor gravity. <i>Physical Review D</i> , 2017, 96, .	1.6	16
47	Systematical study of pulsar light curves with special relativistic effects. <i>Physical Review D</i> , 2018, 98, .	1.6	16
48	Neutron star asteroseismology and nuclear saturation parameter. <i>Physical Review D</i> , 2021, 103, .	1.6	16
49	New constraints on the neutron-star mass and radius relation from terrestrial nuclear experiments. <i>Progress of Theoretical and Experimental Physics</i> , 2022, 2022, .	1.8	16
50	Light curves from highly compact neutron stars with spot size effect. <i>Physical Review D</i> , 2020, 101, .	1.6	15
51	Constraining the density dependence of the nuclear symmetry energy from an x-ray bursting neutron star. <i>Physical Review C</i> , 2015, 91, .	1.1	14
52	Gravitational wave asteroseismology for low-mass neutron stars. <i>Physical Review D</i> , 2020, 102, .	1.6	14
53	Slowly rotating relativistic stars in tensor-vector-scalar theory. <i>Physical Review D</i> , 2010, 81, .	1.6	13
54	Electron screening effects on crustal torsional oscillations. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2014, 730, 166-170.	1.5	13

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55	Empirical formula of crustal torsional oscillations. <i>Physical Review D</i> , 2016, 93, .	1.6	13
56	Gravitational radiation from collapsing magnetized dust. <i>Physical Review D</i> , 2007, 75, .	1.6	12
57	Gravitationally driven electromagnetic perturbations of neutron stars and black holes. <i>Physical Review D</i> , 2013, 87, .	1.6	12
58	Magnetized relativistic stellar models in Eddington-inspired Born-Infeld gravity. <i>Physical Review D</i> , 2015, 91, .	1.6	12
59	Compactness of neutron stars and Tolman VII solutions in scalar-tensor gravity. <i>Physical Review D</i> , 2018, 97, .	1.6	11
60	Gravitational waves from a dust disk around a Schwarzschild black hole. <i>Physical Review D</i> , 2006, 74, .	1.6	10
61	Estimating the nuclear saturation parameter via low-mass neutron star asteroseismology. <i>Physical Review D</i> , 2020, 102, .	1.6	10
62	Gravitational wave asteroseismology on cooling neutron stars. <i>Physical Review D</i> , 2022, 105, .	1.6	9
63	Sensitivity of pulsar light curves to spacetime geometry and efficacy of analytic approximations. <i>Physical Review D</i> , 2017, 96, .	1.6	8
64	Gravitational radiation from collapsing magnetized dust. II. Polar parity perturbation. <i>Physical Review D</i> , 2009, 79, .	1.6	7
65	Torsional oscillations in tensor-vector-scalar theory. <i>Physical Review D</i> , 2011, 83, .	1.6	7
66	Torsional oscillations of neutron stars with highly tangled magnetic fields. <i>Physical Review D</i> , 2015, 92, .	1.6	7
67	Stability of the protoneutron stars towards black hole formation. <i>Monthly Notices of the Royal Astronomical Society</i> , 2021, 507, 2766-2776.	1.6	7
68	Toroidal oscillations of a slowly rotating relativistic star in tensor-vector-scalar theory. <i>Physical Review D</i> , 2010, 82, .	1.6	6
69	Neutron star mass formula with nuclear saturation parameters. <i>Physical Review D</i> , 2022, 105, .	1.6	6
70	Electromagnetic waves from neutron stars and black holes driven by polar gravitational perturbations. <i>General Relativity and Gravitation</i> , 2014, 46, 1.	0.7	5
71	Quark matter with strong magnetic field and possibility of the third family of compact stars. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , stx219.	1.6	4
72	Finite size effects on the light curves of slowly-rotating neutron stars. <i>Physical Review D</i> , 2019, 100, .	1.6	3

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73	Non-axisymmetric Torsional Oscillations of Relativistic Stars. Journal of Physics: Conference Series, 2011, 314, 012081.	0.3	2
74	Comparison of the velocity distribution between the adhesion approximation and the Euler-Jeans-Newton model. Physical Review D, 2006, 73, .	1.6	1
75	Polar oscillations in magnetars. Journal of Physics: Conference Series, 2010, 229, 012079.	0.3	1
76	Probing the Pasta Structure of Neutron Stars. Progress of Theoretical Physics Supplement, 2012, 196, 471-475.	0.2	1
77	Crustal torsional oscillations and nuclear saturation parameters. AIP Conference Proceedings, 2019, , .	0.3	1
78	Crustal torsional oscillations inside the deeper pasta structures. Astronomische Nachrichten, 2019, 340, 920-923.	0.6	1
79	Equation of state for quark matter with strong magnetic field and hybrid stars. Journal of Physics: Conference Series, 2020, 1468, 012087.	0.3	1
80	Accuracy of one-dimensional approximation in neutron star quasi-normal modes. European Physical Journal C, 2022, 82, .	1.4	1
81	Possibility to Probe Gravitational Theory by Gravitational Wave. Journal of Physics: Conference Series, 2006, 31, 147-148.	0.3	0
82	Stellar oscillations in TeVeS. Journal of Physics: Conference Series, 2010, 229, 012069.	0.3	0
83	Slowly Rotating Relativistic Stars in TeVeS. Journal of Physics: Conference Series, 2011, 314, 012126.	0.3	0
84	Constraints on the nuclear symmetry energy via asteroseismology. Journal of Physics: Conference Series, 2013, 453, 012016.	0.3	0
85	Protoneutron Star Properties via Gravitational Wave Asteroseismology. , 2018, , .		0
86	Hybrid Stars as a Third Family of Compact Objects. , 2018, , .		0
87	Gravitational waves from protoneutron stars and nuclear equation of state. Astronomische Nachrichten, 2019, 340, 217-220.	0.6	0