Rory Je Smith

List of Publications by Year
in descending order

50 papers	4,429 citations	257101 24 h-index	214527 47 g-index
50 all docs	50 docs citations	50 times ranked	4933 citing authors

#	Article	IF	Citations
1	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. Nature Photonics, 2013, 7, 613-619.	15.6	825
2	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	8.2	808
3	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
4	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. Living Reviews in Relativity, 2016, 19, 1.	8.2	427
5	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	1.5	225
6	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 909, 218.	1.6	144
7	GW190521 as a Merger of Proca Stars: A Potential New Vector Boson of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>8.7</mml:mn><mml:mo>Ã—</mml:mo><mml:msup><mml:mrow><mml:mn>10</mml:mn></mml:mrow> Physical Review Letters, 2021, 126, 081101.	2.9	125
8	Fast and accurate inference on gravitational waves from precessing compact binaries. Physical Review D, 2016, 94, .	1.6	116
9	Neutron Star Extreme Matter Observatory: A kilohertz-band gravitational-wave detector in the global network. Publications of the Astronomical Society of Australia, 2020, 37, .	1.3	114
10	Massively parallel Bayesian inference for transient gravitational-wave astronomy. Monthly Notices of the Royal Astronomical Society, 2020, 498, 4492-4502.	1.6	105
11	A Surrogate model of gravitational waveforms from numerical relativity simulations of precessing binary black hole mergers. Physical Review D, 2017, 95, .	1.6	96
12	Measuring eccentricity in binary black hole inspirals with gravitational waves. Physical Review D, 2018, 98, .	1.6	85
13	Accelerated Gravitational Wave Parameter Estimation with Reduced Order Modeling. Physical Review Letters, 2015, 114, 071104.	2.9	79
14	Exploring the sensitivity of gravitational wave detectors to neutron star physics. Physical Review D, 2019, 99, .	1.6	78
15	The basic physics of the binary black hole merger GW150914. Annalen Der Physik, 2017, 529, 1600209.	0.9	69
16	Optimal Search for an Astrophysical Gravitational-Wave Background. Physical Review X, 2018, 8, .	2.8	65
17	Parallelized inference for gravitational-wave astronomy. Physical Review D, 2019, 100, .	1.6	62
18	Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. Astrophysical Journal, 2017, 841, 89.	1.6	52

#	Article	IF	Citations
19	Measuring the neutron star equation of state with gravitational waves: The first forty binary neutron star merger observations. Physical Review D, 2019, 100, .	1.6	44
20	Parametrized tests of the strong-field dynamics of general relativity using gravitational wave signals from coalescing binary black holes: Fast likelihood calculations and sensitivity of the method. Physical Review D, 2018, 97, .	1.6	40
21	Measuring the Primordial Gravitational-Wave Background in the Presence of Astrophysical Foregrounds. Physical Review Letters, 2020, 125, 241101.	2.9	38
22	Observing the Dynamics of Supermassive Black Hole Binaries with Pulsar Timing Arrays. Physical Review Letters, 2012, 109, 081104.	2.9	36
23	Towards rapid parameter estimation on gravitational waves from compact binaries using interpolated waveforms. Physical Review D, 2013, 87, .	1.6	29
24	A scalable random forest regressor for combining neutron-star equation of state measurements: a case study with GW170817 and GW190425. Monthly Notices of the Royal Astronomical Society, 2020, 499, 5972-5977.	1.6	27
25	THE NEXT GENERATION VIRGO CLUSTER SURVEY. XXII. SHELL FEATURE EARLY-TYPE DWARF GALAXIES IN THE VIRGO CLUSTER*. Astrophysical Journal, 2017, 834, 66.	1.6	24
26	GW200115: A Nonspinning Black Holeâ€“Neutron Star Merger. Astrophysical Journal Letters, 2021, 922, L14.	3.0	22
27	A FORMATION SCENARIO FOR THE DISK OF SATELLITES: ACCRETION OF SATELLITES DURING MERGERS. Astrophysical Journal, 2016, 818, 11.	1.6	21
28	Bayesian Inference for Gravitational Waves from Binary Neutron Star Mergers in Third Generation Observatories. Physical Review Letters, 2021, 127, 081102.	2.9	21
29	Linking the rates of neutron star binaries and short gamma-ray bursts. Physical Review D, 2022, 105, .	1.6	21
30	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	1.8	20
31	Enhancing confidence in the detection of gravitational waves from compact binaries using signal coherence. Physical Review D, 2018, 98, .	1.6	19
32	LIGOâ€“Virgo correlations between mass ratio and effective inspiral spin: testing the active galactic nuclei channel. Monthly Notices of the Royal Astronomical Society, 2022, 514, 3886-3893.	1.6	19
33	Studies of waveform requirements for intermediate mass-ratio coalescence searches with advanced gravitational-wave detectors. Physical Review D, 2013, 88, .	1.6	18
34	Inferring the population properties of binary black holes from unresolved gravitational waves. Monthly Notices of the Royal Astronomical Society, 2020, 496, 3281-3290.	1.6	16
35	Improved analysis of GW190412 with a precessing numerical relativity surrogate waveform model. Physical Review D, 2021, 103, .	1.6	15
36	Inference with finite time series: Observing the gravitational Universe through windows. Physical Review Research, 2021, 3, .	1.3	14

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37	Measuring the Properties of Active Galactic Nuclei Disks with Gravitational Waves. Astrophysical Journal, 2022, 931, 82.	1.6	14
38	Analysis and visualization of the output mode-matching requirements for squeezing in Advanced LIGO and future gravitational wave detectors. Physical Review D, 2020, 101, .	1.6	8
39	Accelerated detection of the binary neutron star gravitational-wave background. Physical Review D, 2019, 100, .	1.6	7
40	Star Formation of Merging Disk Galaxies with AGN Feedback Effects. Astrophysical Journal, 2017, 845, 128.	1.6	6
41	High precision source characterization of intermediate mass-ratio black hole coalescences with gravitational waves: The importance of higher order multipoles. Physical Review D, 2021, 104, .	1.6	5
42	Computer-games for gravitational wave science outreach:Black Hole PongandSpace Time Quest. Journal of Physics: Conference Series, 2012, 363, 012057.	0.3	4
43	Gravitational waves: search results, data analysis and parameter estimation. General Relativity and Gravitation, 2015, 47, 11.	0.7	4
44	Fast simulation of Gaussian-mode scattering for precision interferometry. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	4
45	The Extended Baryonic Halo of NGC 3923. Galaxies, 2017, 5, 29.	1.1	3
46	Orbital Dynamics and Extreme Scattering Event Properties from Long-term Scintillation Observations of PSR J1603â˜7202. Astrophysical Journal, 2022, 933, 16.	1.6	3
47	Cosmological Simulations of Satellites around Isolated Dwarf Galaxies. Astrophysical Journal, 2019, 881, 115.	1.6	2
48	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
49	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. , 2016, 19, 1.		1
50	OK Computer. Nature Physics, 2022, 18, 9-11.	6.5	0