Richard O'Shaughnessy

List of Publications by Year
in descending order

277	59,135	3159 92	911 241
papers	citations	h-index	g-index

283	283	283	17751
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Observation of Gravitational Waves from a Binary Black Hole Merger. Physical Review Letters, 2016, 116, 061102.	7.8	8,753
2	Multi-messenger Observations of a Binary Neutron Star Merger[*]. Astrophysical Journal Letters, 2017, 848, L12.	8.3	2,805
3	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. Physical Review Letters, 2016, 116, 241103.	7.8	2,701
4	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. Astrophysical Journal Letters, 2017, 848, L13.	8.3	2,314
5	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
6	Advanced LIGO. Classical and Quantum Gravity, 2015, 32, 074001.	4.0	1,929
7	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101.	7.8	1,600
8	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	7.8	1,473
9	Tests of General Relativity with GW150914. Physical Review Letters, 2016, 116, 221101.	7.8	1,224
10	GW190425: Observation of a Compact Binary Coalescence with Total MassÂâˆ¼Â3.4 M_{âŠ™}. Astrophysical Journal Letters, 2020, 892, L3.	8.3	1,049
11	Characterization of the LIGO detectors during their sixth science run. Classical and Quantum Gravity, 2015, 32, 115012.	4.0	1,029
12	LIGO: the Laser Interferometer Gravitational-Wave Observatory. Reports on Progress in Physics, 2009, 72, 076901.	20.1	971
13	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. Astrophysical Journal Letters, 2017, 851, L35.	8.3	968
14	Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors. Classical and Quantum Gravity, 2010, 27, 173001.	4.0	956
15	Testing general relativity with present and future astrophysical observations. Classical and Quantum Gravity, 2015, 32, 243001.	4.0	943
16	Binary Black Hole Mergers in the First Advanced LIGO Observing Run. Physical Review X, 2016, 6, .	8.9	898
17	GW190521: A Binary Black Hole Merger with a Total Mass of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>150</mml:mn><mml:mtext>â€‰</mml:mtext><mml:mtext>â€‰</mml:mtext><mml:msub><mml:mi mathvariant="normal" stretchy="false">âŠ™</mml:mi></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2020, 125, 101102.	7.8	836
18	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. Nature Photonics, 2013, 7, 613-619.	31.4	825

#	Article	IF	Citations
19	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	26.7	808
20	Exploring the sensitivity of next generation gravitational wave detectors. Classical and Quantum Gravity, 2017, 34, 044001.	4.0	735
21	A gravitational wave observatory operating beyond the quantum shot-noise limit. Nature Physics, 2011, 7, 962-965.	16.7	716
22	The first gravitational-wave source from the isolated evolution of two stars in the 40â€“100 solar mass range. Nature, 2016, 534, 512-515.	27.8	712
23	Parameter estimation for compact binaries with ground-based gravitational-wave observations using the LALInference software library. Physical Review D, 2015, 91, .	4.7	674
24	A gravitational-wave standard siren measurement of the Hubble constant. Nature, 2017, 551, 85-88.	27.8	674
25	Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 2016, 116, 241102.	7.8	673
26	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. Astrophysical Journal Letters, 2016, 818, L22.	8.3	633
27	DOUBLE COMPACT OBJECTS. I. THE SIGNIFICANCE OF THE COMMON ENVELOPE ON MERGER RATES. Astrophysical Journal, 2012, 759, 52.	4.5	613
28	Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo. Astrophysical Journal Letters, 2019, 882, L24.	8.3	566
29	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. Physical Review Letters, 2016, 116, 131103.	7.8	466
30	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
31	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. Living Reviews in Relativity, 2016, 19, 1.	26.7	427
32	Properties and Astrophysical Implications of the 150 M_{âŠ™} Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13.	8.3	406
33	Scientific objectives of Einstein Telescope. Classical and Quantum Gravity, 2012, 29, 124013.	4.0	355
34	DOUBLE COMPACT OBJECTS. III. GRAVITATIONAL-WAVE DETECTION RATES. Astrophysical Journal, 2015, 806, 263.	4.5	336
35	DOUBLE COMPACT OBJECTS. II. COSMOLOGICAL MERGER RATES. Astrophysical Journal, 2013, 779, 72.	4.5	334
36	An upper limit on the stochastic gravitational-wave background of cosmological origin. Nature, 2009, 460, 990-994.	27.8	303

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37	The effect of pair-instability mass loss on black-hole mergers. Astronomy and Astrophysics, 2016, 594, A97.	5.1	289
38	Sensitivity of the Advanced LIGO detectors at the beginning of gravitational wave astronomy. Physical Review D, 2016, 93, .	4.7	286
39	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. Physical Review Letters, 2016, 116, 131102.	7.8	269
40	Evolutionary roads leading to low effective spins, high black hole masses, and O1/O2 rates for LIGO/Virgo binary black holes. Astronomy and Astrophysics, 2020, 636, A104.	5.1	256
41	THE EFFECT OF METALLICITY ON THE DETECTION PROSPECTS FOR GRAVITATIONAL WAVES. Astrophysical Journal Letters, 2010, 715, L138-L141.	8.3	253
42	Binary Mergers and Growth of Black Holes in Dense Star Clusters. Astrophysical Journal, 2006, 637, 937-951.	4.5	239
43	THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. Astrophysical Journal Letters, 2016, 833, L1.	8.3	230
44	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	4.0	225
45	Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2017, 118, 121101.	7.8	194
46	COMPACT BINARY MERGER RATES: COMPARISON WITH LIGO/VIRGO UPPER LIMITS. Astrophysical Journal, 2016, 819, 108.	4.5	193
47	Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 851, L16.	8.3	189
48	Search for gravitational waves from low mass compact binary coalescence in LIGOâ€™s sixth science run and Virgoâ€™s science runs 2 and 3. Physical Review D, 2012, 85, .	4.7	185
49	First Measurement of the Hubble Constant from a Dark Standard Siren using the Dark Energy Survey Galaxies and the LIGO/Virgo Binaryâ€“Black-hole Merger GW170814. Astrophysical Journal Letters, 2019, 876, L7.	8.3	179
50	Hierarchical Black Hole Mergers in Active Galactic Nuclei. Physical Review Letters, 2019, 123, 181101.	7.8	167
51	Beating the Spin-Down Limit on Gravitational Wave Emission from the Crab Pulsar. Astrophysical Journal, 2008, 683, L45-L49.	4.5	160
52	Constraints on the neutron star equation of state from AT2017gfo using radiative transfer simulations. Monthly Notices of the Royal Astronomical Society, 2018, 480, 3871-3878.	4.4	157
53	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated withÂGW170817. Astrophysical Journal Letters, 2017, 850, L39.	8.3	156
54	SEARCHES FOR GRAVITATIONAL WAVES FROM KNOWN PULSARS WITH SCIENCE RUN 5 LIGO DATA. Astrophysical Journal, 2010, 713, 671-685.	4.5	155

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55	Spin orientations of merging black holes formed from the evolution of stellar binaries. Physical Review D, 2018, 98, .	4.7	149
56	Compact binary coalescences in the band of ground-based gravitational-wave detectors. Classical and Quantum Gravity, 2010, 27, 114007.	4.0	146
57	UPPER LIMITS ON THE RATES OF BINARY NEUTRON STAR AND NEUTRON STARâ€“BLACK HOLE MERGERS FROM ADVANCED LIGOâ€™S FIRST OBSERVING RUN. Astrophysical Journal Letters, 2016, 832, L21.	8.3	146
58	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 909, 218.	4.5	144
59	Implications for the Origin of GRB 070201 from LIGO Observations. Astrophysical Journal, 2008, 681, 1419-1430.	4.5	143
60	Formation of double compact objects. Physics Reports, 2007, 442, 75-108.	25.6	140
61	Parameter estimation for compact binary coalescence signals with the first generation gravitational-wave detector network. Physical Review D, 2013, 88, .	4.7	132
62	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. Astrophysical Journal, 2017, 839, 12.	4.5	131
63	Searches for periodic gravitational waves from unknown isolated sources and Scorpius X-1: Results from the second LIGO science run. Physical Review D, 2007, 76, .	4.7	128
64	Host Galaxies Catalog Used in LIGO Searches for Compact Binary Coalescence Events. Astrophysical Journal, 2008, 675, 1459-1467.	4.5	127
65	Search for gravitational waves from binary inspirals in S3 and S4 LIGO data. Physical Review D, 2008, 77, .	4.7	126
66	GRAVITATIONAL WAVES FROM KNOWN PULSARS: RESULTS FROM THE INITIAL DETECTOR ERA. Astrophysical Journal, 2014, 785, 119.	4.5	125
67	Observation of a kilogram-scale oscillator near its quantum ground state. New Journal of Physics, 2009, 11, 073032.	2.9	123
68	Upper limits on gravitational wave emission from 78 radio pulsars. Physical Review D, 2007, 76, .	4.7	121
69	Searching for a Stochastic Background of Gravitational Waves with the Laser Interferometer Gravitational-Wave Observatory. Astrophysical Journal, 2007, 659, 918-930.	4.5	120
70	Search for gravitational waves from low mass binary coalescences in the first year of LIGOâ€™s S5 data. Physical Review D, 2009, 79, .	4.7	120
71	Calibration of the LIGO gravitational wave detectors in the fifth science run. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 624, 223-240.	1.6	120
72	Search for Subsolar Mass Ultracompact Binaries in Advanced LIGOâ€™s Second Observing Run. Physical Review Letters, 2019, 123, 161102.	7.8	119

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73	Search for gravitational waves from compact binary coalescence in LIGO and Virgo data from S5 and VSR1. Physical Review D, 2010, 82, .	4.7	111
74	All-sky search for periodic gravitational waves in LIGO S4 data. Physical Review D, 2008, 77, .	4.7	110
75	The Total Merger Rate of Compact Object Binaries in the Local Universe. Astrophysical Journal, 2008, 676, 1162-1169.	4.5	107
76	All-sky search for gravitational-wave bursts in the first joint LIGO-GEO-Virgo run. Physical Review D, 2010, 81, .	4.7	107
77	All-sky search for gravitational-wave bursts in the second joint LIGO-Virgo run. Physical Review D, 2012, 85, .	4.7	107
78	Reconstructing phenomenological distributions of compact binaries via gravitational wave observations. Physical Review D, 2019, 100, .	4.7	107
79	BINARY COMPACT OBJECT COALESCENCE RATES: THE ROLE OF ELLIPTICAL GALAXIES. Astrophysical Journal, 2010, 716, 615-633.	4.5	106
80	Resonant-plane locking and spin alignment in stellar-mass black-hole binaries: A diagnostic of compact-binary formation. Physical Review D, 2013, 87, .	4.7	106
81	Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. Physical Review X, 2016, 6, .	8.9	106
82	Search for gravitational waves from low mass compact binary coalescence in 186 days of LIGOâ€™s fifth science run. Physical Review D, 2009, 80, .	4.7	105
83	FIRST SEARCH FOR GRAVITATIONAL WAVES FROM THE YOUNGEST KNOWN NEUTRON STAR. Astrophysical Journal, 2010, 722, 1504-1513.	4.5	104
84	SEARCH FOR GRAVITATIONAL WAVES ASSOCIATED WITH GAMMA-RAY BURSTS DURING LIGO SCIENCE RUN 6 AND VIRGO SCIENCE RUNS 2 AND 3. Astrophysical Journal, 2012, 760, 12.	4.5	104
85	Directly comparing GW150914 with numerical solutions of Einsteinâ€™s equations for binary black hole coalescence. Physical Review D, 2016, 94, .	4.7	102
86	Constraining Population Synthesis Models via Empirical Binary Compact Object Merger and Supernova Rates. Astrophysical Journal, 2008, 672, 479-488.	4.5	99
87	Multi-timescale analysis of phase transitions in precessing black-hole binaries. Physical Review D, 2015, 92, .	4.7	99
88	Effects of waveform model systematics on the interpretation of GW150914. Classical and Quantum Gravity, 2017, 34, 104002.	4.0	98
89	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160.	4.5	97
90	Analysis of first LIGO science data for stochastic gravitational waves. Physical Review D, 2004, 69, .	4.7	96

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91	Directional Limits on Persistent Gravitational Waves Using LIGO S5 Science Data. Physical Review Letters, 2011, 107, 271102.	7.8	94
92	Accurate and efficient waveforms for compact binaries on eccentric orbits. Physical Review D, 2014, 90, .	4.7	94
93	Search for gravitational waves from binary black hole inspiral, merger, and ringdown in LIGO-Virgo data from 2009â€“2010. Physical Review D, 2013, 87, .	4.7	92
94	Einstein@Home all-sky search for periodic gravitational waves in LIGO S5 data. Physical Review D, 2013, 87, .	4.7	91
95	Effective Potentials and Morphological Transitions for Binary Black Hole Spin Precession. Physical Review Letters, 2015, 114, 081103.	7.8	91
96	Upper limit map of a background of gravitational waves. Physical Review D, 2007, 76, .	4.7	90
97	SEARCH FOR GRAVITATIONAL-WAVE INSPIRAL SIGNALS ASSOCIATED WITH SHORT GAMMA-RAY BURSTS DURING LIGO'S FIFTH AND VIRGO'S FIRST SCIENCE RUN. Astrophysical Journal, 2010, 715, 1453-1461.	4.5	90
98	Upper Limits on a Stochastic Background of Gravitational Waves. Physical Review Letters, 2005, 95, 221101.	7.8	89
99	BEATING THE SPIN-DOWN LIMIT ON GRAVITATIONAL WAVE EMISSION FROM THE VELA PULSAR. Astrophysical Journal, 2011, 737, 93.	4.5	89
100	Eccentricity estimate for black hole mergers with numerical relativity simulations. Nature Astronomy, 2022, 6, 344-349.	10.1	89
101	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€“2017 LIGO Data. Astrophysical Journal, 2019, 879, 10.	4.5	88
102	Short Gammaâ€Ray Bursts and Binary Mergers in Spiral and Elliptical Galaxies: Redshift Distribution and Hosts. Astrophysical Journal, 2008, 675, 566-585.	4.5	86
103	Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009â€“2010 LIGO and Virgo Data. Physical Review Letters, 2014, 113, 231101.	7.8	86
104	Novel scheme for rapid parallel parameter estimation of gravitational waves from compact binary coalescences. Physical Review D, 2015, 92, .	4.7	86
105	Search for gravitational waves from binary black hole inspiral, merger, and ringdown. Physical Review D, 2011, 83, .	4.7	85
106	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. Physical Review Letters, 2018, 120, 201102.	7.8	85
107	Directional Limits on Persistent Gravitational Waves from Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2017, 118, 121102.	7.8	84
108	Monte Carlo simulations of black hole mergers in AGN discs: Low Ï‡eff mergers and predictions for LIGO. Monthly Notices of the Royal Astronomical Society, 2020, 494, 1203-1216.	4.4	84

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109	Implementation and testing of the first prompt search forÂgravitational wave transients with electromagnetic counterparts. Astronomy and Astrophysics, 2012, 539, A124.	5.1	84
110	All-Sky LIGO Search for Periodic Gravitational Waves in the Early Fifth-Science-Run Data. Physical Review Letters, 2009, 102, 111102.	7.8	83
111	Einstein@Home search for periodic gravitational waves in LIGO S4 data. Physical Review D, 2009, 79, .	4.7	83
112	Black hole, neutron star, and white dwarf merger rates in AGN discs. Monthly Notices of the Royal Astronomical Society, 2020, 498, 4088-4094.	4.4	83
113	On the properties of the massive binary black hole merger GW170729. Physical Review D, 2019, 100, .	4.7	82
114	Observing IMBH-IMBH Binary Coalescences via Gravitational Radiation. Astrophysical Journal, 2006, 646, L135-L138.	4.5	79
115	Search for gravitational-wave bursts in the first year of the fifth LIGO science run. Physical Review D, 2009, 80, .	4.7	79
116	Search for gravitational-wave bursts in LIGO data from the fourth science run. Classical and Quantum Gravity, 2007, 24, 5343-5369.	4.0	78
117	Einstein@Home search for periodic gravitational waves in early S5 LIGO data. Physical Review D, 2009, 80, .	4.7	78
118	Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2018, 121, 231103.	7.8	77
119	First low-latency LIGO+Virgo search for binary inspirals and their electromagnetic counterparts. Astronomy and Astrophysics, 2012, 541, A155.	5.1	75
120	The characterization of Virgo data and its impact on gravitational-wave searches. Classical and Quantum Gravity, 2012, 29, 155002.	4.0	73
121	Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. Physical Review D, 2017, 96, .	4.7	73
122	On the Progenitor of Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 850, L40.	8.3	73
123	Multiband gravitational-wave event rates and stellar physics. Physical Review D, 2019, 99, .	4.7	73
124	Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914. Physical Review D, 2017, 95, .	4.7	72
125	Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during Their First and Second Observing Runs. Astrophysical Journal, 2019, 883, 149.	4.5	72
126	Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run. Astrophysical Journal, 2019, 875, 161.	4.5	71

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127	Search for Gravitational-Wave Bursts from Soft Gamma Repeaters. Physical Review Letters, 2008, 101, 211102.	7.8	69
128	All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. Physical Review D, 2017, 95, .	4.7	69
129	The basic physics of the binary black hole merger GW150914. Annalen Der Physik, 2017, 529, 1600209.	2.4	69
130	Testing gravitational parity violation with coincident gravitational waves and short gamma-ray bursts. Physical Review D, 2010, 82, .	4.7	68
131	Constraints on Cosmic Strings from the LIGO-Virgo Gravitational-Wave Detectors. Physical Review Letters, 2014, 112, 131101.	7.8	68
132	First Search for Nontensorial Gravitational Waves from Known Pulsars. Physical Review Letters, 2018, 120, 031104.	7.8	68
133	Comparing gravitational waves from nonprecessing and precessing black hole binaries in the corotating frame. Physical Review D, 2013, 88, .	4.7	67
134	Modeling the source of GW150914 with targeted numerical-relativity simulations. Classical and Quantum Gravity, 2016, 33, 244002.	4.0	67
135	All-sky search for periodic gravitational waves in the full S5 LIGO data. Physical Review D, 2012, 85, .	4.7	66
136	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. Astrophysical Journal, 2015, 813, 39.	4.5	66
137	Black Hole Coagulation: Modeling Hierarchical Mergers in Black Hole Populations. Astrophysical Journal, 2020, 893, 35.	4.5	66
138	Directed search for continuous gravitational waves from the Galactic center. Physical Review D, 2013, 88, .	4.7	65
139	Explaining LIGOâ€™s observations via isolated binary evolution with natal kicks. Physical Review D, 2018, 97, .	4.7	65
140	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. Astrophysical Journal Letters, 2020, 902, L21.	8.3	65
141	Gravitational waves from black hole-neutron star binaries: Effective Fisher matrices and parameter estimation using higher harmonics. Physical Review D, 2013, 87, .	4.7	64
142	All-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2017, 96, .	4.7	64
143	SUPPLEMENT: â€œTHE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914â€•(2016, ApJL, 833, L1). Astrophysical Journal, Supplement Series, 2016, 227, 14.	7.7	63
144	Efficient asymptotic frame selection for binary black hole spacetimes using asymptotic radiation. Physical Review D, 2011, 84, .	4.7	62

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145	SWIFT FOLLOW-UP OBSERVATIONS OF CANDIDATE GRAVITATIONAL-WAVE TRANSIENT EVENTS. Astrophysical Journal, Supplement Series, 2012, 203, 28.	7.7	62
146	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO[*]. Astrophysical Journal, 2019, 875, 122.	4.5	61
147	Search for gravitational waves associated with 39 gamma-ray bursts using data from the second, third, and fourth LIGO runs. Physical Review D, 2008, 77, .	4.7	60
148	SEARCH FOR GRAVITATIONAL-WAVE BURSTS ASSOCIATED WITH GAMMA-RAY BURSTS USING DATA FROM LIGO SCIENCE RUN 5 AND VIRGO SCIENCE RUN 1. Astrophysical Journal, 2010, 715, 1438-1452.	4.5	60
149	IMPLICATIONS FOR THE ORIGIN OF GRB 051103 FROM LIGO OBSERVATIONS. Astrophysical Journal, 2012, 755, 2.	4.5	60
150	First all-sky search for continuous gravitational waves from unknown sources in binary systems. Physical Review D, 2014, 90, .	4.7	60
151	First targeted search for gravitational-wave bursts from core-collapse supernovae in data of first-generation laser interferometer detectors. Physical Review D, 2016, 94, .	4.7	60
152	First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. Physical Review D, 2017, 96, .	4.7	60
153	Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model. Physical Review D, 2017, 95, .	4.7	59
154	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. Astrophysical Journal, Supplement Series, 2014, 211, 7.	7.7	57
155	Inferences about Supernova Physics from Gravitational-Wave Measurements: GW151226 Spin Misalignment as an Indicator of Strong Black-Hole Natal Kicks. Physical Review Letters, 2017, 119, 011101.	7.8	57
156	Combining Electromagnetic and Gravitational-Wave Constraints on Neutron-Star Masses and Radii. Physical Review Letters, 2021, 126, 061101.	7.8	57
157	SEARCH FOR GRAVITATIONAL WAVE BURSTS FROM SIX MAGNETARS. Astrophysical Journal Letters, 2011, 734, L35.	8.3	55
158	Parameter estimation method that directly compares gravitational wave observations to numerical relativity. Physical Review D, 2017, 96, .	4.7	55
159	Search of S3 LIGO data for gravitational wave signals from spinning black hole and neutron star binary inspirals. Physical Review D, 2008, 78, .	4.7	54
160	Search for gravitational waves associated with the August 2006 timing glitch of the Vela pulsar. Physical Review D, 2011, 83, .	4.7	54
161	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.	4.5	52
162	Dynamical interactions and the black-hole merger rate of the Universe. Physical Review D, 2007, 76, .	4.7	51

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163	Search for gravitational wave radiation associated with the pulsating tail of the SGR<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>1806</mml:mn><mml:mo>â^'</mml:mo><mml:mn>20</mml:mn></mml:math>hyperflare of 27 December 2004 using LIGO. Physical Review D, 2007, 76, .	4.7	51
164	The Lowest-Mass Stellar Black Holes: Catastrophic Death of Neutron Stars in Gamma-Ray Bursts. Astrophysical Journal, 2008, 680, L129-L132.	4.5	50
165	Reconstructing the sky location of gravitational-wave detected compact binary systems: Methodology for testing and comparison. Physical Review D, 2014, 89, .	4.7	50
166	Second RIT binary black hole simulations catalog and its application to gravitational waves parameter estimation. Physical Review D, 2019, 100, .	4.7	50
167	Constraining Population Synthesis Models via the Binary Neutron Star Population. Astrophysical Journal, 2005, 633, 1076-1084.	4.5	48
168	Search for gravitational waves from intermediate mass binary black holes. Physical Review D, 2012, 85, .	4.7	48
169	The Formation of a 70 M_{âŠ™} Black Hole at High Metallicity. Astrophysical Journal, 2020, 890, 113.	4.5	48
170	Nonspinning searches for spinning black hole-neutron star binaries in ground-based detector data: Amplitude and mismatch predictions in the constant precession cone approximation. Physical Review D, 2012, 86, .	4.7	47
171	Directed search for gravitational waves from Scorpius X-1 with initial LIGO data. Physical Review D, 2015, 91, .	4.7	47
172	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. Physical Review D, 2017, 96, .	4.7	47
173	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
174	First LIGO search for gravitational wave bursts from cosmic (super)strings. Physical Review D, 2009, 80, .	4.7	45
175	STACKED SEARCH FOR GRAVITATIONAL WAVES FROM THE 2006 SGR 1900+14 STORM. Astrophysical Journal, 2009, 701, L68-L74.	4.5	45
176	Validating gravitational-wave detections: The Advanced LIGO hardware injection system. Physical Review D, 2017, 95, .	4.7	45
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