Chris J Messenger

List of Publications by Year
in descending order

144 papers	20,440 citations	16437 64 h-index	10152 140 g-index
145 all docs	145 docs citations	145 times ranked	9766 citing authors

#	Article	IF	Citations
1	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. Physical Review Letters, 2016, 116, 241103.	2.9	2,701
2	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	2.9	1,473
3	Characterization of the LIGO detectors during their sixth science run. Classical and Quantum Gravity, 2015, 32, 115012.	1.5	1,029
4	Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors. Classical and Quantum Gravity, 2010, 27, 173001.	1.5	956
5	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. Nature Photonics, 2013, 7, 613-619.	15.6	825
6	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
7	A gravitational wave observatory operating beyond the quantum shot-noise limit. Nature Physics, 2011, 7, 962-965.	6.5	716
8	Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 2016, 116, 241102.	2.9	673
9	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. Astrophysical Journal Letters, 2016, 818, L22.	3.0	633
10	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.	3.0	566
11	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. Physical Review Letters, 2016, 116, 131103.	2.9	466
12	Black holes, gravitational waves and fundamental physics: a roadmap. Classical and Quantum Gravity, 2019, 36, 143001.	1.5	451
13	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
14	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. Living Reviews in Relativity, 2016, 19, 1.	8.2	427
15	An upper limit on the stochastic gravitational-wave background of cosmological origin. Nature, 2009, 460, 990-994.	13.7	303
16	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. Physical Review Letters, 2016, 116, 131102.	2.9	269
17	Detector description and performance for the first coincidence observations between LIGO and GEO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 517, 154-179.	0.7	259
18	THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. Astrophysical Journal Letters, 2016, 833, L1.	3.0	230

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19	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	1.5	225
20	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.	3.0	179
21	Measuring a Cosmological Distance-Redshift Relationship Using Only Gravitational Wave Observations of Binary Neutron Star Coalescences. Physical Review Letters, 2012, 108, 091101.	2.9	173
22	Setting upper limits on the strength of periodic gravitational waves from PSRJ1939+2134using the first science data from the GEO 600 and LIGO detectors. Physical Review D, 2004, 69, .	1.6	165
23	SEARCHES FOR GRAVITATIONAL WAVES FROM KNOWN PULSARS WITH SCIENCE RUN 5 LIGO DATA. Astrophysical Journal, 2010, 713, 671-685.	1.6	155
24	Analysis of LIGO data for gravitational waves from binary neutron stars. Physical Review D, 2004, 69, .	1.6	145
25	A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. Astrophysical Journal Letters, 2019, 871, L13.	3.0	145
26	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
27	Implications for the Origin of GRB 070201 from LIGO Observations. Astrophysical Journal, 2008, 681, 1419-1430.	1.6	143
28	Matching Matched Filtering with Deep Networks for Gravitational-Wave Astronomy. Physical Review Letters, 2018, 120, 141103.	2.9	140
29	The GEO-HF project. Classical and Quantum Gravity, 2006, 23, S207-S214.	1.5	133
30	Limits on Gravitational-Wave Emission from Selected Pulsars Using LIGO Data. Physical Review Letters, 2005, 94, 181103.	2.9	130
31	GLADE: A galaxy catalogue for multimessenger searches in the advanced gravitational-wave detector era. Monthly Notices of the Royal Astronomical Society, 2018, 479, 2374-2381.	1.6	129
32	GRAVITATIONAL WAVES FROM KNOWN PULSARS: RESULTS FROM THE INITIAL DETECTOR ERA. Astrophysical Journal, 2014, 785, 119.	1.6	125
33	Status of the GEO600 detector. Classical and Quantum Gravity, 2006, 23, S71-S78.	1.5	123
34	Searching for a Stochastic Background of Gravitational Waves with the Laser Interferometer Gravitational-Wave Observatory. Astrophysical Journal, 2007, 659, 918-930.	1.6	120
35	Search for Subsolar Mass Ultracompact Binaries in Advanced LIGOâ€™s Second Observing Run. Physical Review Letters, 2019, 123, 161102.	2.9	119
36	Search for gravitational waves from galactic and extra-galactic binary neutron stars. Physical Review D, 2005, 72, .	1.6	109

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37	First upper limits from LIGO on gravitational wave bursts. Physical Review D, 2004, 69, .	1.6	108
38	FIRST SEARCH FOR GRAVITATIONAL WAVES FROM THE YOUNGEST KNOWN NEUTRON STAR. Astrophysical Journal, 2010, 722, 1504-1513.	1.6	104
39	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.	1.6	104
40	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160.	1.6	97
41	Analysis of first LIGO science data for stochastic gravitational waves. Physical Review D, 2004, 69, .	1.6	96
42	Cosmological inference using gravitational wave standard sirens: A mock data analysis. Physical Review D, 2020, 101, .	1.6	95
43	Directional Limits on Persistent Gravitational Waves Using LIGO S5 Science Data. Physical Review Letters, 2011, 107, 271102.	2.9	94
44	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.	1.6	90
45	Upper Limits on a Stochastic Background of Gravitational Waves. Physical Review Letters, 2005, 95, 221101.	2.9	89
46	BEATING THE SPIN-DOWN LIMIT ON GRAVITATIONAL WAVE EMISSION FROM THE VELA PULSAR. Astrophysical Journal, 2011, 737, 93.	1.6	89
47	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€“2017 LIGO Data. Astrophysical Journal, 2019, 879, 10.	1.6	88
48	Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009â€“2010 LIGO and Virgo Data. Physical Review Letters, 2014, 113, 231101.	2.9	86
49	Status of GEO 600. Classical and Quantum Gravity, 2004, 21, S417-S423.	1.5	85
50	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. Physical Review Letters, 2018, 120, 201102.	2.9	85
51	All-Sky LIGO Search for Periodic Gravitational Waves in the Early Fifth-Science-Run Data. Physical Review Letters, 2009, 102, 111102.	2.9	83
52	Search for gravitational waves from primordial black hole binary coalescences in the galactic halo. Physical Review D, 2005, 72, .	1.6	79
53	Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2018, 121, 231103.	2.9	77
54	First all-sky upper limits from LIGO on the strength of periodic gravitational waves using the Hough transform. Physical Review D, 2005, 72, .	1.6	75

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55	Search for gravitational waves from binary black hole inspirals in LIGO data. Physical Review D, 2006, 73, .	1.6	75
56	Searching for gravitational waves from Cassiopeia A with LIGO. Classical and Quantum Gravity, 2008, 25, 235011.	1.5	75
57	Search for gravitational waves associated with the gamma ray burst GRB030329 using the LIGO detectors. Physical Review D, 2005, 72, .	1.6	74
58	The characterization of Virgo data and its impact on gravitational-wave searches. Classical and Quantum Gravity, 2012, 29, 155002.	1.5	73
59	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.	1.6	72
60	Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run. Astrophysical Journal, 2019, 875, 161.	1.6	71
61	Search for Gravitational-Wave Bursts from Soft Gamma Repeaters. Physical Review Letters, 2008, 101, 211102.	2.9	69
62	The basic physics of the binary black hole merger GW150914. Annalen Der Physik, 2017, 529, 1600209.	0.9	69
63	Constraints on Cosmic Strings from the LIGO-Virgo Gravitational-Wave Detectors. Physical Review Letters, 2014, 112, 131101.	2.9	68
64	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. Astrophysical Journal, 2015, 813, 39.	1.6	66
65	Bayesian parameter estimation using conditional variational autoencoders for gravitational-wave astronomy. Nature Physics, 2022, 18, 112-117.	6.5	66
66	Binary neutron star mergers and third generation detectors: Localization and early warning. Physical Review D, 2018, 97, .	1.6	62
67	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO[*]. Astrophysical Journal, 2019, 875, 122.	1.6	61
68	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.	1.6	60
69	IMPLICATIONS FOR THE ORIGIN OF GRB 051103 FROM LIGO OBSERVATIONS. Astrophysical Journal, 2012, 755, 2.	1.6	60
70	Deep-learning continuous gravitational waves. Physical Review D, 2019, 100, .	1.6	59
71	Upper limits on gravitational wave bursts in LIGOâ€™s second science run. Physical Review D, 2005, 72, .	1.6	57
72	Random template banks and relaxed lattice coverings. Physical Review D, 2009, 79, .	1.6	57

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73	Pulsar Discovery by Global Volunteer Computing. Science, 2010, 329, 1305-1305.	6.0	57
74	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. Astrophysical Journal, Supplement Series, 2014, 211, 7.	3.0	57
75	SEARCH FOR GRAVITATIONAL WAVE BURSTS FROM SIX MAGNETARS. Astrophysical Journal Letters, 2011, 734, L35.	3.0	55
76	THE<i>EINSTEIN@HOME</i>SEARCH FOR RADIO PULSARS AND PSR J2007+2722 DISCOVERY. Astrophysical Journal, 2013, 773, 91.	1.6	53
77	Cosmological inference using only gravitational wave observations of binary neutron stars. Physical Review D, 2017, 95, .	1.6	53
78	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
79	Upper limits from the LIGO and TAMA detectors on the rate of gravitational-wave bursts. Physical Review D, 2005, 72, .	1.6	49
80	Search method for long-duration gravitational-wave transients from neutron stars. Physical Review D, 2011, 84, .	1.6	47
81	A BAYESIAN APPROACH TO MULTI-MESSENGER ASTRONOMY: IDENTIFICATION OF GRAVITATIONAL-WAVE HOST GALAXIES. Astrophysical Journal, 2014, 795, 43.	1.6	46
82	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.	1.6	46
83	STACKED SEARCH FOR GRAVITATIONAL WAVES FROM THE 2006 SGR 1900+14 STORM. Astrophysical Journal, 2009, 701, L68-L74.	1.6	45
84	Report on the second Mock LISA data challenge. Classical and Quantum Gravity, 2008, 25, 114037.	1.5	44
85	Gravitational waves from Scorpius X-1: A comparison of search methods and prospects for detection with advanced detectors. Physical Review D, 2015, 92, .	1.6	44
86	SUPPLEMENT: â€œLOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914â€• (2016, ApJL, 826, L13). Astrophysical Journal, Supplement Series, 2016, 225, 8.	3.0	44
87	Source Redshifts from Gravitational-Wave Observations of Binary Neutron Star Mergers. Physical Review X, 2014, 4, .	2.8	43
88	The long-term evolution of the accreting millisecond X-ray pulsar Swiftâ€ƒJ1756.9âˆ’2508. Monthly Notices of the Royal Astronomical Society, 2010, 403, 1426-1432.	1.6	42
89	The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations. Classical and Quantum Gravity, 2014, 31, 115004.	1.5	42
90	Joint LIGO and TAMA300 search for gravitational waves from inspiralling neutron star binaries. Physical Review D, 2006, 73, .	1.6	40

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91	Search for gravitational-wave bursts in LIGO's third science run. Classical and Quantum Gravity, 2006, 23, S29-S39.	1.5	40
92	The radiative efficiency of a radiatively inefficient accretion flow. Monthly Notices of the Royal Astronomical Society, 2015, 449, 2803-2817.	1.6	37
93	Nested sampling with normalizing flows for gravitational-wave inference. Physical Review D, 2021, 103, .	1.6	36
94	Detection and classification of supernova gravitational wave signals: A deep learning approach. Physical Review D, 2020, 102, .	1.6	35
95	Implementation of an $mathcal{F}$-statistic all-sky search for continuous gravitational waves in Virgo VSR1 data. Classical and Quantum Gravity, 2014, 31, 165014.	1.5	34
96	Report on the first round of the Mock LISA Data Challenges. Classical and Quantum Gravity, 2007, 24, S529-S539.	1.5	33
97	Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube. Astrophysical Journal, 2019, 870, 134.	1.6	32
98	The very faint X-ray binary IGR J17062-6143: a truncated disc, no pulsations, and a possible outflow. Monthly Notices of the Royal Astronomical Society, 2018, 475, 2027-2044.	1.6	30
99	A Fermi Gamma-Ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-wave Candidates in Advanced LIGO's First Observing Run. Astrophysical Journal, 2019, 871, 90.	1.6	30
100	Search for Gravitational-wave Signals Associated with Gamma-Ray Bursts during the Second Observing Run of Advanced LIGO and Advanced Virgo. Astrophysical Journal, 2019, 886, 75.	1.6	29
101	Accretion-induced spin-wandering effects on the neutron star in Scorpius X-1: Implications for continuous gravitational wave searches. Physical Review D, 2018, 97, .	1.6	28
102	The status of GEO 600. Classical and Quantum Gravity, 2005, 22, S193-S198.	1.5	27
103	Implementation of the frequency-modulated sideband search method for gravitational waves from low mass x-ray binaries. Physical Review D, 2014, 89, .	1.6	27
104	Astrophysically triggered searches for gravitational waves: status and prospects. Classical and Quantum Gravity, 2008, 25, 114051.	1.5	26
105	Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGOâ€™s Second Observing Run. Astrophysical Journal, 2019, 874, 163.	1.6	26
106	A fast search strategy for gravitational waves from low-mass x-ray binaries. Classical and Quantum Gravity, 2007, 24, S469-S480.	1.5	25
107	ARECIBO PALFA SURVEY AND EINSTEIN@HOME: BINARY PULSAR DISCOVERY BY VOLUNTEER COMPUTING. Astrophysical Journal Letters, 2011, 732, L1.	3.0	25
108	Semicoherent search strategy for known continuous wave sources in binary systems. Physical Review D, 2011, 84, .	1.6	23

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109	Avoiding selection bias in gravitational wave astronomy. New Journal of Physics, 2013, 15, 053027.	1.2	23
110	First joint search for gravitational-wave bursts in LIGO and GEO 600 data. Classical and Quantum Gravity, 2008, 25, 245008.	1.5	22
111	Systematic errors in estimation of gravitational-wave candidate significance. Physical Review D, 2017, 96, .	1.6	21
112	A pixelated approach to galaxy catalogue incompleteness: improving the dark siren measurement of the Hubble constant. Monthly Notices of the Royal Astronomical Society, 2022, 512, 1127-1140.	1.6	21
113	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	1.8	20
114	MAXIMIZING THE DETECTION PROBABILITY OF KILONOVAE ASSOCIATED WITH GRAVITATIONAL WAVE OBSERVATIONS. Astrophysical Journal, 2017, 834, 84.	1.6	18
115	Generalized application of the Viterbi algorithm to searches for continuous gravitational-wave signals. Physical Review D, 2019, 100, .	1.6	18
116	Robust machine learning algorithm to search for continuous gravitational waves. Physical Review D, 2020, 102, .	1.6	17
117	Exploring the sky localization and early warning capabilities of third generation gravitational wave detectors in three-detector network configurations. Physical Review D, 2022, 105, .	1.6	17
118	Commissioning, characterization and operation of the dual-recycled GEO 600. Classical and Quantum Gravity, 2004, 21, S1737-S1745.	1.5	15
119	Inference on white dwarf binary systems using the first round Mock LISA Data Challenges data sets. Classical and Quantum Gravity, 2007, 24, S541-S549.	1.5	15
120	Hierarchical Bayesian method for detecting continuous gravitational waves from an ensemble of pulsars. Physical Review D, 2018, 98, .	1.6	15
121	A SEMI-COHERENT SEARCH FOR WEAK PULSATIONS IN AQUILA Xâ€"1. Astrophysical Journal, 2015, 806, 261.	1.6	14
122	Inference on inspiral signals using LISA MLDC data. Classical and Quantum Gravity, 2007, 24, S521-S527.	1.5	13
123	Are stellar-mass binary black hole mergers isotropically distributed?. Monthly Notices of the Royal Astronomical Society, 2020, 501, 970-977.	1.6	13
124	Probing Intrinsic Properties of Short Gamma-Ray Bursts with Gravitational Waves. Physical Review Letters, 2017, 119, 181102.	2.9	12
125	Astrophysical calibration of gravitational-wave detectors. Physical Review D, 2016, 93, .	1.6	11
126	A Deep Pulse Search in 11 Low Mass X-Ray Binaries. Astrophysical Journal, 2018, 859, 112.	1.6	11

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127	Generalised gravitational wave burst generation with generative adversarial networks. Classical and Quantum Gravity, 2021, 38, 155005.	1.5	11
128	Detecting gravitational waves from extreme mass ratio inspirals using convolutional neural networks. Physical Review D, 2022, 105, .	1.6	10
129	Strategies for the follow-up of gravitational wave transients with the Cherenkov Telescope Array. Monthly Notices of the Royal Astronomical Society, 2018, 477, 639-647.	1.6	9
130	Utilizing Gaussian mixture models in all-sky searches for short-duration gravitational wave bursts. Physical Review D, 2022, 105, .	1.6	8
131	Method to detect gravitational waves from an ensemble of known pulsars. Physical Review D, 2016, 94, .	1.6	7
132	Deep searches for X-ray pulsations from Scorpius X-1 and Cygnus X-2 in support of continuous gravitational wave searches. Monthly Notices of the Royal Astronomical Society, 2021, 509, 1745-1754.	1.6	7
133	Quantum algorithm for gravitational-wave matched filtering. Physical Review Research, 2022, 4, .	1.3	7
134	Host galaxy identification for binary black hole mergers with long baseline gravitational wave detectors. Monthly Notices of the Royal Astronomical Society, 2018, 474, 4385-4395.	1.6	6
135	Enhancing the sensitivity of transient gravitational wave searches with Gaussian mixture models. Physical Review D, 2020, 102, .	1.6	6
136	A Bayesian parameter estimation approach to pulsar time-of-arrival analysis. Classical and Quantum Gravity, 2011, 28, 055001.	1.5	5
137	Upper limits on the strength of periodic gravitational waves from PSR J1939+2134. Classical and Quantum Gravity, 2004, 21, S671-S676.	1.5	4
138	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
139	Searching for gravitational waves from low mass x-ray binaries. Classical and Quantum Gravity, 2004, 21, S729-S734.	1.5	1
140	Data analysis methods for testing alternative theories of gravity with LISA Pathfinder. Physical Review D, 2014, 89, .	1.6	1
141	Detector characterization in GEO 600. Classical and Quantum Gravity, 2003, 20, S731-S739.	1.5	0
142	C7 multi-messenger astronomy of GW sources. General Relativity and Gravitation, 2014, 46, 1.	0.7	0
143	Upper limit to the transverse to longitudinal motion coupling of a waveguide mirror. Classical and Quantum Gravity, 2015, 32, 175005.	1.5	0
144	Strategies for the Follow-up of Gravitational Wave Transients at Very High-Energy Gamma Rays with the Cherenkov Telescope Array. Nuclear and Particle Physics Proceedings, 2019, 306-308, 69-73.	0.2	0