Greg Ashton

List of Publications by Year
in descending order

112 papers	52,461 citations	19608 61 h-index	24179 110 g-index
113 all docs	113 docs citations	113 times ranked	16393 citing authors

#	Article	IF	Citations
1	Search for continuous gravitational waves from 20 accreting millisecond x-ray pulsars in O3 LIGO data. Physical Review D, 2022, 105, .	1.6	31
2	An updated glitch rate law inferred from radio pulsars. Monthly Notices of the Royal Astronomical Society, 2022, 511, 3304-3319.	1.6	8
3	Low-efficiency long gamma-ray bursts: a case study with AT2020blt. Monthly Notices of the Royal Astronomical Society, 2022, 512, 1391-1399.	1.6	3
4	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGOâ€"Virgo Run O3b. Astrophysical Journal, 2022, 928, 186.	1.6	15
5	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	1.8	20
6	Nested sampling for physical scientists. Nature Reviews Methods Primers, 2022, 2, .	11.8	40
7	All-sky, all-frequency directional search for persistent gravitational waves from Advanced LIGOâ€™s and Advanced Virgoâ€™s first three observing runs. Physical Review D, 2022, 105, .	1.6	18
8	Narrowband Searches for Continuous and Long-duration Transient Gravitational Waves from Known Pulsars in the LIGO-Virgo Third Observing Run. Astrophysical Journal, 2022, 932, 133.	1.6	33
9	The use of hypermodels to understand binary neutron star collisions. Nature Astronomy, 2022, 6, 961-967.	4.2	5
10	Parameterised population models of transient non-Gaussian noise in the LIGO gravitational-wave detectors. Classical and Quantum Gravity, 2022, 39, 175004.	1.5	14
11	Standard-siren Cosmology Using Gravitational Waves from Binary Black Holes. Astrophysical Journal, 2021, 908, 215.	1.6	28
12	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
13	All-sky search in early O3 LIGO data for continuous gravitational-wave signals from unknown neutron stars in binary systems. Physical Review D, 2021, 103, .	1.6	43
14	PyFstat: a Python package for continuous gravitational-wave data analysis. Journal of Open Source Software, 2021, 6, 3000.	2.0	16
15	Population Properties of Compact Objects from the Second LIGOâ€"Virgo Gravitational-Wave Transient Catalog. Astrophysical Journal Letters, 2021, 913, L7.	3.0	514
16	Observation of Gravitational Waves from Two Neutron Starâ€"Black Hole Coalescences. Astrophysical Journal Letters, 2021, 915, L5.	3.0	453
17	Tests of general relativity with binary black holes from the second LIGO-Virgo gravitational-wave transient catalog. Physical Review D, 2021, 103, .	1.6	338
18	Constraints on Cosmic Strings Using Data from the Third Advanced LIGOâ€"Virgo Observing Run. Physical Review Letters, 2021, 126, 241102.	2.9	87

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19	GWTC-2: Compact Binary Coalescences Observed by LIGO and Virgo during the First Half of the Third Observing Run. Physical Review X, 2021, 11, .	2.8	1,097
20	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGOâ€“Virgo Run O3a. Astrophysical Journal, 2021, 915, 86.	1.6	20
21	<scp>Bilby</scp>-MCMC: an MCMC sampler for gravitational-wave inference. Monthly Notices of the Royal Astronomical Society, 2021, 507, 2037-2051.	1.6	25
22	Identification of a Local Sample of Gamma-Ray Bursts Consistent with a Magnetar Giant Flare Origin. Astrophysical Journal Letters, 2021, 907, L28.	3.0	33
23	Optimized localization for gravitational waves from merging binaries. Monthly Notices of the Royal Astronomical Society, 2021, 509, 3957-3965.	1.6	2
24	Prospects of Gravitational Wave Detections from Common Envelope Evolution with LISA. Astrophysical Journal, 2021, 919, 128.	1.6	12
25	All-sky search for continuous gravitational waves from isolated neutron stars in the early O3 LIGO data. Physical Review D, 2021, 104, .	1.6	42
26	Current observations are insufficient to confidently associate the binary black hole merger GW190521 with AGN J124942.3 + 344929. Classical and Quantum Gravity, 2021, 38, 235004.	1.5	36
27	Searches for Continuous Gravitational Waves from Young Supernova Remnants in the Early Third Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 921, 80.	1.6	39
28	Search for Lensing Signatures in the Gravitational-Wave Observations from the First Half of LIGOâ€“Virgoâ€™s Third Observing Run. Astrophysical Journal, 2021, 923, 14.	1.6	59
29	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
30	A Joint Fermi-GBM and LIGO/Virgo Analysis of Compact Binary Mergers from the First and Second Gravitational-wave Observing Runs. Astrophysical Journal, 2020, 893, 100.	1.6	12
31	The astrophysical odds of GW151216. Monthly Notices of the Royal Astronomical Society, 2020, 498, 1905-1910.	1.6	10
32	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> stretchy="false">âŠ™</mml:mo></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2020, 125, 101102.	2.9	836
33	GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. Physical Review D, 2020, 102, .	1.6	394
34	Massively parallel Bayesian inference for transient gravitational-wave astronomy. Monthly Notices of the Royal Astronomical Society, 2020, 498, 4492-4502.	1.6	105
35	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
36	Bayesian inference for compact binary coalescences with <scp>bilby</scp>: validation and application to the first LIGOâ€“Virgo gravitational-wave transient catalogue. Monthly Notices of the Royal Astronomical Society, 2020, 499, 3295-3319.	1.6	213

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37	Multiwaveform inference of gravitational waves. Physical Review D, 2020, 101, .	1.6	22
38	GW190814: Gravitational Waves from the Coalescence of a 23 Solar Mass Black Hole with a 2.6 Solar Mass Compact Object. Astrophysical Journal Letters, 2020, 896, L44.	3.0	1,090
39	GW190425: Observation of a Compact Binary Coalescence with Total MassÂâˆ¼Â3.4 M_{âŠ™}. Astrophysical Journal Letters, 2020, 892, L3.	3.0	1,049
40	Gravitational waves or deconfined quarks: What causes the premature collapse of neutron stars born in short gamma-ray bursts?. Physical Review D, 2020, 101, .	1.6	32
41	Model comparison from LIGOâ€"Virgo data on GW170817â€™s binary components and consequences for the merger remnant. Classical and Quantum Gravity, 2020, 37, 045006.	1.5	109
42	A guide to LIGOâ€"Virgo detector noise and extraction of transient gravitational-wave signals. Classical and Quantum Gravity, 2020, 37, 055002.	1.5	188
43	Interpreting the X-ray afterglows of gamma-ray bursts with radiative losses and millisecond magnetars. Monthly Notices of the Royal Astronomical Society, 2020, 499, 5986-5992.	1.6	14
44	Properties and Astrophysical Implications of the 150 M_{âŠ™} Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13.	3.0	406
45	Characterizing Astrophysical Binary Neutron Stars with Gravitational Waves. Astrophysical Journal Letters, 2020, 902, L12.	3.0	9
46	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€"2017 LIGO Data. Astrophysical Journal, 2019, 879, 10.	1.6	88
47	All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. Physical Review D, 2019, 100, .	1.6	102
48	Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102.	2.9	370
49	Search for Subsolar Mass Ultracompact Binaries in Advanced LIGOâ€™s Second Observing Run. Physical Review Letters, 2019, 123, 161102.	2.9	119
50	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
51	Neutron star merger remnants: Braking indices, gravitational waves, and the equation of state. AIP Conference Proceedings, 2019, , .	0.3	3
52	Rotational evolution of the Vela pulsar during the 2016 glitch. Nature Astronomy, 2019, 3, 1143-1148.	4.2	58
53	GWTC-1: A Gravitational-Wave Transient Catalog of Compact Binary Mergers Observed by LIGO and Virgo during the First and Second Observing Runs. Physical Review X, 2019, 9, .	2.8	2,022
54	X-Ray Afterglows of Short Gamma-Ray Bursts: Magnetar or Fireball?. Astrophysical Journal, 2019, 872, 114.	1.6	19

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55	Bilby: A User-friendly Bayesian Inference Library for Gravitational-wave Astronomy. Astrophysical Journal, Supplement Series, 2019, 241, 27.	3.0	526
56	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
57	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO[*]. Astrophysical Journal, 2019, 875, 122.	1.6	61
58	Constraining the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math> -Modeâ€" <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>g</mml:mi></mml:math> -Mode Tidal Instability with GW170817. Physical Review Letters, 2019, 122, 061104.	2.9	36
59	Gravitational wave detection without boot straps: A Bayesian approach. Physical Review D, 2019, 100, .	1.6	16
60	Tests of general relativity with the binary black hole signals from the LIGO-Virgo catalog GWTC-1. Physical Review D, 2019, 100, .	1.6	470
61	Properties of the Binary Neutron Star Merger GW170817. Physical Review X, 2019, 9, .	2.8	728
62	Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGOâ€™s first observing run. Classical and Quantum Gravity, 2018, 35, 065010.	1.5	94
63	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. Physical Review Letters, 2018, 120, 091101.	2.9	166
64	First Search for Nontensorial Gravitational Waves from Known Pulsars. Physical Review Letters, 2018, 120, 031104.	2.9	68
65	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
66	Faster search for long gravitational-wave transients: GPU implementation of the transient $ ewcommand{F}{mathcal{F}}oldsymbol{ F}$ -statistic. Classical and Quantum Gravity, 2018, 35, 205003.	1.5	14
67	Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2018, 121, 231103.	2.9	77
68	Hierarchical multistage MCMC follow-up of continuous gravitational wave candidates. Physical Review D, 2018, 97, .	1.6	31
69	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	2.9	1,473
70	A semicoherent glitch-robust continuous-gravitational-wave search method. Physical Review D, 2018, 98, .	1.6	14
71	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. Physical Review Letters, 2018, 120, 201102.	2.9	85
72	Coincident Detection Significance in Multimessenger Astronomy. Astrophysical Journal, 2018, 860, 6.	1.6	27

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73	X-ray guided gravitational-wave search for binary neutron star merger remnants. Physical Review D, 2018, 98, .	1.6	28
74	Exploring the sensitivity of next generation gravitational wave detectors. Classical and Quantum Gravity, 2017, 34, 044001.	1.5	735
75	Effects of waveform model systematics on the interpretation of GW150914. Classical and Quantum Gravity, 2017, 34, 104002.	1.5	98
76	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. Astrophysical Journal, 2017, 839, 12.	1.6	131
77	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101.	2.9	1,600
78	Statistical characterization of pulsar glitches and their potential impact on searches for continuous gravitational waves. Physical Review D, 2017, 96, .	1.6	41
79	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
80	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. Physical Review Letters, 2017, 119, 161101.	2.9	6,413
81	Multi-messenger Observations of a Binary Neutron Star Merger[*]. Astrophysical Journal Letters, 2017, 848, L12.	3.0	2,805
82	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. Astrophysical Journal Letters, 2017, 848, L13.	3.0	2,314
83	All-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2017, 96, .	1.6	64
84	Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 851, L16.	3.0	189
85	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated withÂGW170817. Astrophysical Journal Letters, 2017, 850, L39.	3.0	156
86	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. Physical Review Letters, 2017, 118, 221101.	2.9	1,987
87	Implications of the Occurrence of Glitches in Pulsar Free Precession Candidates. Physical Review Letters, 2017, 118, 261101.	2.9	12
88	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, .	1.6	59
89	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. Physical Review D, 2017, 96, .	1.6	47
90	First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. Physical Review D, 2017, 96, .	1.6	60

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91	On the Progenitor of Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 850, L40.	3.0	73
92	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. Astrophysical Journal Letters, 2017, 851, L35.	3.0	968
93	Advances in our understanding of the free precession candidate PSR B1828-11. Proceedings of the International Astronomical Union, 2017, 13, 307-308.	0.0	0
94	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	1.5	225
95	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.	3.0	63
96	Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. Physical Review X, 2016, 6, .	2.8	106
97	Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@Home volunteer distributed computing project. Physical Review D, 2016, 94, .	1.6	31
98	THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. Astrophysical Journal Letters, 2016, 833, L1.	3.0	230
99	Directly comparing GW150914 with numerical solutions of Einsteinâ€™s equations for binary black hole coalescence. Physical Review D, 2016, 94, .	1.6	102
100	GW150914: First results from the search for binary black hole coalescence with Advanced LIGO. Physical Review D, 2016, 93, .	1.6	315
101	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. Physical Review Letters, 2016, 116, 131102.	2.9	269
102	Observing gravitational-wave transient GW150914 with minimal assumptions. Physical Review D, 2016, 93, .	1.6	119
103	Tests of General Relativity with GW150914. Physical Review Letters, 2016, 116, 221101.	2.9	1,224
104	Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 2016, 116, 241102.	2.9	673
105	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. Physical Review Letters, 2016, 116, 241103.	2.9	2,701
106	Binary Black Hole Mergers in the First Advanced LIGO Observing Run. Physical Review X, 2016, 6, .	2.8	898
107	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. Astrophysical Journal Letters, 2016, 818, L22.	3.0	633
108	Observation of Gravitational Waves from a Binary Black Hole Merger. Physical Review Letters, 2016, 116, 061102.	2.9	8,753

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109	Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data. Physical Review D, 2015, 91, .	1.6	37
110	Effect of timing noise on targeted and narrow-band coherent searches for continuous gravitational waves from pulsars. Physical Review D, 2015, 91, .	1.6	20
111	Advanced LIGO. Classical and Quantum Gravity, 2015, 32, 074001.	1.5	1,929
112	On the free-precession candidate PSR B1828-11: Evidence for increasing deformation. Monthly Notices of the Royal Astronomical Society, 0, , stx060.	1.6	10