## R Birney

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4677253/publications.pdf

Version: 2024-02-01

135	53,997	70	135
papers	citations	h-index	g-index
137	137	137	16656
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.	2.9	8,753
2	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. Physical Review Letters, 2017, 119, 161101.	2.9	6,413
3	Multi-messenger Observations of a Binary Neutron Star Merger < sup>* < /sup>. Astrophysical Journal Letters, 2017, 848, L12.	3.0	2,805
4	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. Physical Review Letters, 2016, 116, 241103.	2.9	2,701
5	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
6	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
7	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
8	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101.	2.9	1,600
9	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	2.9	1,473
10	Tests of General Relativity with GW150914. Physical Review Letters, 2016, 116, 221101.	2.9	1,224
11	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
12	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
13	GW190425: Observation of a Compact Binary Coalescence with Total MassÂâ^¼Â3.4 M <sub>⊙</sub> . Astrophysical Journal Letters, 2020, 892, L3.	3.0	1,049
14	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. Astrophysical Journal Letters, 2017, 851, L35.	3.0	968
15	Binary Black Hole Mergers in the First Advanced LIGO Observing Run. Physical Review X, 2016, 6, .	2.8	898
16	GW190521: A Binary Black Hole Merger with a Total Mass of <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mn>150</mml:mn><mml:mtext>â€%</mml:mtext> â€% â€%</mml:mrow></mml:math>	nml <b>znt</b> ext	> < n <b>aa</b> d:msub>
17	Letters, 2020, 125, 101102.  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
18	Exploring the sensitivity of next generation gravitational wave detectors. Classical and Quantum Gravity, 2017, 34, 044001.	1.5	735

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19	Properties of the Binary Neutron Star Merger GW170817. Physical Review X, 2019, 9, .	2.8	728
20	A gravitational-wave standard siren measurement of the Hubble constant. Nature, 2017, 551, 85-88.	13.7	674
21	Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 2016, 116, 241102.	2.9	673
22	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. Astrophysical Journal Letters, 2016, 818, L22.	3.0	633
23	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
24	Population Properties of Compact Objects from the Second LIGO–Virgo Gravitational-Wave Transient Catalog. Astrophysical Journal Letters, 2021, 913, L7.	3.0	514
25	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
26	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. Physical Review Letters, 2016, 116, 131103.	2.9	466
27	Observation of Gravitational Waves from Two Neutron Star–Black Hole Coalescences. Astrophysical Journal Letters, 2021, 915, L5.	3.0	453
28	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
29	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. Living Reviews in Relativity, 2016, 19, 1.	8.2	427
30	Properties and Astrophysical Implications of the 150 M <sub>⊙</sub> Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13.	3.0	406
31	GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. Physical Review D, 2020, 102, .	1.6	394
32	Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102.	2.9	370
33	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
34	GW150914: First results from the search for binary black hole coalescence with Advanced LIGO. Physical Review D, 2016, 93, .	1.6	315
35	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. Physical Review Letters, 2016, 116, 131102.	2.9	269
36	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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37	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. Classical and Quantum Gravity, 2016, 33, 134001.	1.5	225
38	LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914. Astrophysical Journal Letters, 2016, 826, L13.	3.0	210
39	Search for the isotropic stochastic background using data from Advanced LIGO's second observing run. Physical Review D, 2019, 100, .	1.6	200
40	Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO's First Observing Run. Physical Review Letters, 2017, 118, 121101.	2.9	194
41	Upper limits on the isotropic gravitational-wave background from Advanced LIGO and Advanced Virgo's third observing run. Physical Review D, 2021, 104, .	1.6	192
42	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
43	A guide to LIGO–Virgo detector noise and extraction of transient gravitational-wave signals. Classical and Quantum Gravity, 2020, 37, 055002.	1.5	188
44	First Measurement of the Hubble Constant from a Dark Standard Siren using the Dark Energy Survey Galaxies and the LIGO/Virgo Binary–Black-hole Merger GW170814. Astrophysical Journal Letters, 2019, 876, L7.	3.0	179
45	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. Physical Review Letters, 2018, 120, 091101.	2.9	166
46	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated withÂGW170817. Astrophysical Journal Letters, 2017, 850, L39.	3.0	156
47	UPPER LIMITS ON THE RATES OF BINARY NEUTRON STAR AND NEUTRON STAR–BLACK HOLE MERGERS FROM ADVANCED LIGO'S FIRST OBSERVING RUN. Astrophysical Journal Letters, 2016, 832, L21.	3.0	146
48	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
49	Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory. Astrophysical Journal Letters, 2017, 850, L35.	3.0	135
50	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. Astrophysical Journal, 2017, 839, 12.	1.6	131
51	A cryogenic silicon interferometer for gravitational-wave detection. Classical and Quantum Gravity, 2020, 37, 165003.	1.5	120
52	Observing gravitational-wave transient GW150914 with minimal assumptions. Physical Review D, 2016, 93, .	1.6	119
53	Search for Subsolar Mass Ultracompact Binaries in Advanced LIGO's Second Observing Run. Physical Review Letters, 2019, 123, 161102.	2.9	119
54	Model comparison from LIGO–Virgo data on GW170817's binary components and consequences for the merger remnant. Classical and Quantum Gravity, 2020, 37, 045006.	1.5	109

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55	Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. Physical Review X, 2016, 6, .	2.8	106
56	Directly comparing GW150914 with numerical solutions of Einstein's equations for binary black hole coalescence. Physical Review D, 2016, 94, .	1.6	102
57	All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. Physical Review D, 2019, 100, .	1.6	102
58	Effects of waveform model systematics on the interpretation of GW150914. Classical and Quantum Gravity, 2017, 34, 104002.	1.5	98
59	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160.	1.6	97
60	Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGO's first observing run. Classical and Quantum Gravity, 2018, 35, 065010.	1.5	94
61	High-energy neutrino follow-up search of gravitational wave event GW150914 with ANTARES and IceCube. Physical Review D, 2016, 93, .	1.6	92
62	Constraints on cosmic strings using data from the first Advanced LIGO observing run. Physical Review D, 2018, 97, .	1.6	88
63	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015–2017 LIGO Data. Astrophysical Journal, 2019, 879, 10.	1.6	88
64	Constraints on Cosmic Strings Using Data from the Third Advanced LIGO–Virgo Observing Run. Physical Review Letters, 2021, 126, 241102.	2.9	87
65	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. Physical Review Letters, 2018, 120, 201102.	2.9	85
66	Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run. Physical Review Letters, 2017, 118, 121102.	2.9	84
67	Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. Physical Review Letters, 2018, 121, 231103.	2.9	77
68	Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. Physical Review D, 2017, 96, .	1.6	73
69	On the Progenitor of Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 850, L40.	3.0	73
70	Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914. Physical Review D, 2017, 95, .	1.6	72
71	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
72	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

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73	All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. Physical Review D, 2017, 95, .	1.6	69
74	The basic physics of the binary black hole merger GW150914. Annalen Der Physik, 2017, 529, 1600209.	0.9	69
<b>7</b> 5	Optically targeted search for gravitational waves emitted by core-collapse supernovae during the first and second observing runs of advanced LIGO and advanced Virgo. Physical Review D, 2020, 101, .	1.6	69
76	First Search for Nontensorial Gravitational Waves from Known Pulsars. Physical Review Letters, 2018, 120, 031104.	2.9	68
77	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. Astrophysical Journal Letters, 2020, 902, L21.	3.0	65
78	All-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2017, 96, .	1.6	64
79	SUPPLEMENT: "THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914―(2016, ApJL, 833, L1). Astrophysical Journal, Supplement Series, 2016, 227, 14.	3.0	63
80	Search for anisotropic gravitational-wave backgrounds using data from Advanced LIGO and Advanced Virgo's first three observing runs. Physical Review D, 2021, 104, .	1.6	62
81	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO <sup>*</sup> . Astrophysical Journal, 2019, 875, 122.	1.6	61
82	First targeted search for gravitational-wave bursts from core-collapse supernovae in data of first-generation laser interferometer detectors. Physical Review D, 2016, 94, .	1.6	60
83	First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. Physical Review D, 2017, 96, .	1.6	60
84	Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. Physical Review D, 2019, 99, .	1.6	60
85	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
86	Search for Lensing Signatures in the Gravitational-Wave Observations from the First Half of LIGO–Virgo's Third Observing Run. Astrophysical Journal, 2021, 923, 14.	1.6	59
87	All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run. Physical Review D, 2019, 100, .	1.6	54
88	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
89	Search for intermediate mass black hole binaries in the first and second observing runs of the Advanced LIGO and Virgo network. Physical Review D, 2019, 100, .	1.6	52
90	Directional limits on persistent gravitational waves using data from Advanced LIGO's first two observing runs. Physical Review D, 2019, 100, .	1.6	52

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91	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. Physical Review D, 2017, 96, .	1.6	47
92	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
93	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2018, 97, .	1.6	46
94	Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model. Physical Review D, 2019, 100, .	1.6	46
95	SUPPLEMENT: "LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914―(2016, ApJL, 826, L13). Astrophysical Journal, Supplement Series, 2016, 225, 8.	3.0	44
96	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
97	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
98	Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube. Physical Review D, 2017, 96, .	1.6	40
99	Amorphous Silicon with Extremely Low Absorption: Beating Thermal Noise in Gravitational Astronomy. Physical Review Letters, 2018, 121, 191101.	2.9	40
100	All-sky search for gravitational wave emission from scalar boson clouds around spinning black holes in LIGO O3 data. Physical Review D, 2022, 105, .	1.6	40
101	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
102	Constraining the <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -Modeâe" <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>g</mml:mi></mml:math> -Mode Tidal Instability with GW170817. Physical Review Letters, 2019, 122, 061104.	2.9	36
103	Comprehensive all-sky search for periodic gravitational waves in the sixth science run LIGO data. Physical Review D, 2016, 94, .	1.6	35
104	Investigation of the antimicrobial properties of modified multilayer diamond-like carbon coatings on 316 stainless steel. Surface and Coatings Technology, 2017, 314, 72-78.	2.2	34
105	All-sky search for short gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run. Physical Review D, 2021, 104, .	1.6	33
106	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
107	First low frequency all-sky search for continuous gravitational wave signals. Physical Review D, 2016, 93, .	1.6	32
108	Diving below the Spin-down Limit: Constraints on Gravitational Waves from the Energetic Young Pulsar PSR J0537-6910. Astrophysical Journal Letters, 2021, 913, L27.	3.0	32

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109	Search for intermediate-mass black hole binaries in the third observing run of Advanced LIGO and Advanced Virgo. Astronomy and Astrophysics, 2022, 659, A84.	2.1	32
110	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
111	Search for continuous gravitational waves from 20 accreting millisecond x-ray pulsars in O3 LIGO data. Physical Review D, 2022, 105, .	1.6	31
112	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
113	All-sky search for long-duration gravitational wave transients with initial LIGO. Physical Review D, 2016, 93, .	1.6	29
114	High Precision Detection of Change in Intermediate Range Order of Amorphous Zirconia-Doped Tantala Thin Films Due to Annealing. Physical Review Letters, 2019, 123, 045501.	2.9	29
115	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
116	Constraints from LIGO O3 Data on Gravitational-wave Emission Due to R-modes in the Glitching Pulsar PSR J0537–6910. Astrophysical Journal, 2021, 922, 71.	1.6	29
117	Effect of elevated substrate temperature deposition on the mechanical losses in tantala thin film coatings. Classical and Quantum Gravity, 2018, 35, 075001.	1.5	26
118	Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGO's Second Observing Run. Astrophysical Journal, 2019, 874, 163.	1.6	26
119	Mirror Coating Solution for the Cryogenic Einstein Telescope. Physical Review Letters, 2019, 122, 231102.	2.9	24
120	All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. Physical Review D, 2019, 99, .	1.6	22
121	Search of the early O3 LIGO data for continuous gravitational waves from the Cassiopeia A and Vela Jr. supernova remnants. Physical Review D, 2022, 105, .	1.6	21
122	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGO–Virgo Run O3a. Astrophysical Journal, 2021, 915, 86.	1.6	20
123	Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544. Physical Review D, 2017, 95, .	1.6	19
124	All-sky search for long-duration gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run. Physical Review D, 2021, 104, .	1.6	19
125	All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run. Classical and Quantum Gravity, 2018, 35, 065009.	1.5	18
126	All-sky, all-frequency directional search for persistent gravitational waves from Advanced LIGO's and Advanced Virgo's first three observing runs. Physical Review D, 2022, 105, .	1.6	18

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127	Search of the Orion spur for continuous gravitational waves using a loosely coherent algorithm on data from LIGO interferometers. Physical Review D, 2016, 93, .	1.6	17
128	Exploration of co-sputtered Ta <sub>2</sub> O <sub>5</sub> â€"ZrO <sub>2</sub> thin films for gravitational-wave detectors. Classical and Quantum Gravity, 2021, 38, 195021.	1.5	15
129	Search for Gravitational Waves Associated with Gamma-Ray Bursts Detected by Fermi and Swift during the LIGO–Virgo Run O3b. Astrophysical Journal, 2022, 928, 186.	1.6	15
130	Search for transient gravitational waves in coincidence with short-duration radio transients during 2007 ${\hat a} \in {}^{\!$	1.6	14
131	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
132	Coatings and surface treatments for enhanced performance suspensions for future gravitational wave detectors. Classical and Quantum Gravity, 2017, 34, 235012.	1.5	4
133	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
134	Investigation of Automotive Detailing Products by Ellipsometry and Contact Angle Analysis. Acta Physica Polonica A, 2009, 116, 712-714.	0.2	2
135	ECR ion beam deposition for the fabrication of ultra-low loss optical coatings. , 2017, , .		0