

Paul Fulda

List of Publications by Year in descending order

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132
papers

35,486
citations

13865

67
h-index

16183

124
g-index

138
all docs

138
docs citations

138
times ranked

13865
citing authors

#	ARTICLE	IF	CITATIONS
1	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. <i>Astrophysical Journal</i> , 2021, 909, 218.	4.5	144
2	Point absorbers in Advanced LIGO. <i>Applied Optics</i> , 2021, 60, 4047.	1.8	24
3	LIGO detector characterization in the second and third observing runs. <i>Classical and Quantum Gravity</i> , 2021, 38, 135014.	4.0	128
4	Power coupling losses for misaligned and mode-mismatched higher-order Hermite-Gauss modes. <i>Optics Letters</i> , 2021, 46, 2694.	3.3	7
5	Approaching the motional ground state of a 10-kg object. <i>Science</i> , 2021, 372, 1333-1336.	12.6	59
6	Environmental noise in advanced LIGO detectors. <i>Classical and Quantum Gravity</i> , 2021, 38, 145001.	4.0	38
7	Characterization of dimensional stability for materials used in ultra-stable structures. , 2021, , .		2
8	Ground testing of the LISA telescope. , 2021, , .		2
9	LIGO's quantum response to squeezed states. <i>Physical Review D</i> , 2021, 104, .	4.7	19
10	Point Absorber Limits to Future Gravitational-Wave Detectors. <i>Physical Review Letters</i> , 2021, 127, 241102.	7.8	3
11	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2020, 23, 3.	26.7	447
12	A Joint Fermi-GBM and LIGO/Virgo Analysis of Compact Binary Mergers from the First and Second Gravitational-wave Observing Runs. <i>Astrophysical Journal</i> , 2020, 893, 100.	4.5	12
13	GW190521: A Binary Black Hole Merger with a Total Mass of $150 M_{\odot}$. <i>Physical Review Letters</i> , 2020, 125, 101102.	7.8	806
14	Higher-order Hermite-Gauss modes as a robust flat beam in interferometric gravitational wave detectors. <i>Physical Review D</i> , 2020, 102, .	4.7	16
15	Sensitivity and performance of the Advanced LIGO detectors in the third observing run. <i>Physical Review D</i> , 2020, 102, .	4.7	196
16	GW190814: Gravitational Waves from the Coalescence of a 23 Solar Mass Black Hole with a 2.6 Solar Mass Compact Object. <i>Astrophysical Journal Letters</i> , 2020, 896, L44.	8.3	1,090
17	GW190425: Observation of a Compact Binary Coalescence with Total Mass $\sim 3.4 M_{\odot}$. <i>Astrophysical Journal Letters</i> , 2020, 892, L3.	8.3	1,049
18	Quantum correlations between light and the kilogram-mass mirrors of LIGO. <i>Nature</i> , 2020, 583, 43-47.	27.8	102

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19	Improving the robustness of the advanced LIGO detectors to earthquakes. <i>Classical and Quantum Gravity</i> , 2020, 37, 235007.	4.0	11
20	Hydroxide catalysis bonding of Allvar Alloy 30, a negative thermal expansion alloy. <i>Journal of Astronomical Telescopes, Instruments, and Systems</i> , 2020, 6, 1.	1.8	2
21	Analytic HG-mode propagation through circular apertures with Zernike phase offset. <i>OSA Continuum</i> , 2020, 3, 1891.	1.8	6
22	Properties and Astrophysical Implications of the 150 M _☉ Binary Black Hole Merger GW190521. <i>Astrophysical Journal Letters</i> , 2020, 900, L13.	8.3	406
23	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. <i>Astrophysical Journal Letters</i> , 2020, 902, L21.	8.3	65
24	Ultrastable optical components using adjustable commercial mirror mounts anchored in a ULE spacer. <i>Applied Optics</i> , 2020, 59, 6999.	1.8	8
25	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015–2017 LIGO Data. <i>Astrophysical Journal</i> , 2019, 879, 10.	4.5	88
26	Search for Eccentric Binary Black Hole Mergers with Advanced LIGO and Advanced Virgo during Their First and Second Observing Runs. <i>Astrophysical Journal</i> , 2019, 883, 149.	4.5	72
27	Search for Substellar Mass Ultracompact Binaries in Advanced LIGO's Second Observing Run. <i>Physical Review Letters</i> , 2019, 123, 161102.	7.8	119
28	Binary Black Hole Population Properties Inferred from the First and Second Observing Runs of Advanced LIGO and Advanced Virgo. <i>Astrophysical Journal Letters</i> , 2019, 882, L24.	8.3	566
29	Search for Multimessenger Sources of Gravitational Waves and High-energy Neutrinos with Advanced LIGO during Its First Observing Run, ANTARES, and IceCube. <i>Astrophysical Journal</i> , 2019, 870, 134.	4.5	32
30	A Fermi Gamma-Ray Burst Monitor Search for Electromagnetic Signals Coincident with Gravitational-wave Candidates in Advanced LIGO's First Observing Run. <i>Astrophysical Journal</i> , 2019, 871, 90.	4.5	30
31	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO. <i>Astrophysical Journal</i> , 2019, 875, 122.	4.5	61
32	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal</i> , 2019, 875, 160.	4.5	97
33	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. <i>Astrophysical Journal Letters</i> , 2019, 876, L7.	8.3	179
34	Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run. <i>Astrophysical Journal</i> , 2019, 875, 161.	4.5	71
35	Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGO's Second Observing Run. <i>Astrophysical Journal</i> , 2019, 874, 163.	4.5	26
36	Improving astrophysical parameter estimation via offline noise subtraction for Advanced LIGO. <i>Physical Review D</i> , 2019, 99, .	4.7	77

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37	Quantum-Enhanced Advanced LIGO Detectors in the Era of Gravitational-Wave Astronomy. <i>Physical Review Letters</i> , 2019, 123, 231107.	7.8	359
38	Search for Gravitational-wave Signals Associated with Gamma-Ray Bursts during the Second Observing Run of Advanced LIGO and Advanced Virgo. <i>Astrophysical Journal</i> , 2019, 886, 75.	4.5	29
39	Multi-axis heterodyne interferometry at MHz frequencies: a short-arm measurement demonstration for LISA with off-the-shelf hardware. <i>Applied Optics</i> , 2019, 58, 6346.	1.8	3
40	Prospects for Detecting Gravitational Waves at 5ÂHz with Ground-Based Detectors. <i>Physical Review Letters</i> , 2018, 120, 141102.	7.8	47
41	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2018, 21, 3.	26.7	808
42	Identification and mitigation of narrow spectral artifacts that degrade searches for persistent gravitational waves in the first two observing runs of Advanced LIGO. <i>Physical Review D</i> , 2018, 97, .	4.7	104
43	Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , 2018, 121, 231103.	7.8	77
44	GW170817: Measurements of Neutron Star Radii and Equation of State. <i>Physical Review Letters</i> , 2018, 121, 161101.	7.8	1,473
45	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , 2018, 120, 201102.	7.8	85
46	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
47	Exploring the sensitivity of next generation gravitational wave detectors. <i>Classical and Quantum Gravity</i> , 2017, 34, 044001.	4.0	735
48	Effects of waveform model systematics on the interpretation of GW150914. <i>Classical and Quantum Gravity</i> , 2017, 34, 104002.	4.0	98
49	Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914. <i>Physical Review D</i> , 2017, 95, .	4.7	72
50	Present and Future Ground-Based Detectors. , 2017, , 195-220.		0
51	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. <i>Astrophysical Journal</i> , 2017, 839, 12.	4.5	131
52	The basic physics of the binary black hole merger GW150914. <i>Annalen Der Physik</i> , 2017, 529, 1600209.	2.4	69
53	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2017, 119, 141101.	7.8	1,600
54	Upper Limits on Gravitational Waves from Scorpius X-1 from a Model-based Cross-correlation Search in Advanced LIGO Data. <i>Astrophysical Journal</i> , 2017, 847, 47.	4.5	46

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55	A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , 2017, 551, 85-88.	27.8	674
56	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. <i>Astrophysical Journal Letters</i> , 2017, 848, L13.	8.3	2,314
57	Quantum correlation measurements in interferometric gravitational-wave detectors. <i>Physical Review A</i> , 2017, 95, .	2.5	16
58	Search for Gravitational Waves Associated with Gamma-Ray Bursts during the First Advanced LIGO Observing Run and Implications for the Origin of GRB 150906B. <i>Astrophysical Journal</i> , 2017, 841, 89.	4.5	52
59	First Demonstration of Electrostatic Damping of Parametric Instability at Advanced LIGO. <i>Physical Review Letters</i> , 2017, 118, 151102.	7.8	24
60	Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 851, L16.	8.3	189
61	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L39.	8.3	156
62	Effects of transients in LIGO suspensions on searches for gravitational waves. <i>Review of Scientific Instruments</i> , 2017, 88, 124501.	1.3	6
63	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. <i>Physical Review Letters</i> , 2017, 118, 221101.	7.8	1,987
64	On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L40.	8.3	73
65	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. <i>Astrophysical Journal Letters</i> , 2017, 851, L35.	8.3	968
66	Alignment sensing for optical cavities using radio-frequency jitter modulation. <i>Applied Optics</i> , 2017, 56, 3879.	2.1	8
67	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. <i>Classical and Quantum Gravity</i> , 2016, 33, 134001.	4.0	225
68	Small optic suspensions for Advanced LIGO input optics and other precision optical experiments. <i>Review of Scientific Instruments</i> , 2016, 87, 114504.	1.3	3
69	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. <i>Living Reviews in Relativity</i> , 2016, 19, 1.	26.7	427
70	THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. <i>Astrophysical Journal Letters</i> , 2016, 833, L1.	8.3	230
71	The advanced LIGO input optics. <i>Review of Scientific Instruments</i> , 2016, 87, 014502.	1.3	32
72	UPPER LIMITS ON THE RATES OF BINARY NEUTRON STAR AND NEUTRON STAR-BLACK HOLE MERGERS FROM ADVANCED LIGO'S FIRST OBSERVING RUN. <i>Astrophysical Journal Letters</i> , 2016, 832, L21.	8.3	146

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73	Sensitivity of the Advanced LIGO detectors at the beginning of gravitational wave astronomy. <i>Physical Review D</i> , 2016, 93, .	4.7	286
74	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. <i>Physical Review Letters</i> , 2016, 116, 131102.	7.8	269
75	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. <i>Physical Review Letters</i> , 2016, 116, 131103.	7.8	466
76	SUPPLEMENT: “LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914” (2016, <i>ApJL</i> , 826, L13). <i>Astrophysical Journal, Supplement Series</i> , 2016, 225, 8.	7.7	44
77	Tests of General Relativity with GW150914. <i>Physical Review Letters</i> , 2016, 116, 221101.	7.8	1,224
78	Properties of the Binary Black Hole Merger GW150914. <i>Physical Review Letters</i> , 2016, 116, 241102.	7.8	673
79	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2016, 116, 241103.	7.8	2,701
80	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. <i>Astrophysical Journal Letters</i> , 2016, 818, L22.	8.3	633
81	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. , 2016, 19, 1.		1
82	<i>In situ</i> characterization of the thermal state of resonant optical interferometers via tracking of their higher-order mode resonances. <i>Classical and Quantum Gravity</i> , 2015, 32, 135018.	4.0	5
83	Characterization of the LIGO detectors during their sixth science run. <i>Classical and Quantum Gravity</i> , 2015, 32, 115012.	4.0	1,029
84	Advanced LIGO. <i>Classical and Quantum Gravity</i> , 2015, 32, 074001.	4.0	1,929
85	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. <i>Astrophysical Journal</i> , 2015, 813, 39.	4.5	66
86	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. <i>Astrophysical Journal, Supplement Series</i> , 2014, 211, 7.	7.7	57
87	Constraints on Cosmic Strings from the LIGO-Virgo Gravitational-Wave Detectors. <i>Physical Review Letters</i> , 2014, 112, 131101.	7.8	68
88	Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009–2010 LIGO and Virgo Data. <i>Physical Review Letters</i> , 2014, 113, 231101.	7.8	86
89	Progress and challenges in advanced ground-based gravitational-wave detectors. <i>General Relativity and Gravitation</i> , 2014, 46, 1.	2.0	2
90	Implementation of an F -statistic all-sky search for continuous gravitational waves in Virgo VSR1 data. <i>Classical and Quantum Gravity</i> , 2014, 31, 165014.	4.0	34

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91	GRAVITATIONAL WAVES FROM KNOWN PULSARS: RESULTS FROM THE INITIAL DETECTOR ERA. <i>Astrophysical Journal</i> , 2014, 785, 119.	4.5	125
92	The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations. <i>Classical and Quantum Gravity</i> , 2014, 31, 115004.	4.0	42
93	Concepts and research for future detectors. <i>General Relativity and Gravitation</i> , 2014, 46, 1.	2.0	2
94	Tabletop Demonstrations of LG Mode Production and Cleaning. <i>Springer Theses</i> , 2014, , 67-97.	0.1	0
95	Laguerre-Gauss Beams for Test Mass Thermal Noise Reduction. <i>Springer Theses</i> , 2014, , 17-39.	0.1	0
96	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. <i>Nature Photonics</i> , 2013, 7, 613-619.	31.4	825
97	Feedback control of optical beam spatial profiles using thermal lensing. <i>Applied Optics</i> , 2013, 52, 6452.	1.8	15
98	Interferometer phase noise due to beam misalignment on diffraction gratings. <i>Optics Express</i> , 2013, 21, 29578.	3.4	1
99	Generation of High-Purity Higher-Order Laguerre-Gauss Beams at High Laser Power. <i>Physical Review Letters</i> , 2013, 110, 251101.	7.8	33
100	The Generation of Higher-order Laguerre-Gauss Optical Beams for High-precision Interferometry. <i>Journal of Visualized Experiments</i> , 2013, , .	0.3	5
101	SWIFT FOLLOW-UP OBSERVATIONS OF CANDIDATE GRAVITATIONAL-WAVE TRANSIENT EVENTS. <i>Astrophysical Journal, Supplement Series</i> , 2012, 203, 28.	7.7	62
102	The characterization of Virgo data and its impact on gravitational-wave searches. <i>Classical and Quantum Gravity</i> , 2012, 29, 155002.	4.0	73
103	Publisher's Note: All-sky search for gravitational-wave bursts in the first joint LIGO-GEO-Virgo run [<i>Phys. Rev. D</i> 81 (2010)]. <i>Physical Review D</i> , 2012, 85, .	4.7	3
104	Review of the Laguerre-Gauss mode technology research program at Birmingham. <i>Journal of Physics: Conference Series</i> , 2012, 363, 012010.	0.4	1
105	Phase effects in Gaussian beams on diffraction gratings. <i>Journal of Physics: Conference Series</i> , 2012, 363, 012014.	0.4	2
106	SEARCH FOR GRAVITATIONAL WAVES ASSOCIATED WITH GAMMA-RAY BURSTS DURING LIGO SCIENCE RUN 6 AND VIRGO SCIENCE RUNS 2 AND 3. <i>Astrophysical Journal</i> , 2012, 760, 12.	4.5	104
107	Computer-games for gravitational wave science outreach: <i>Black Hole Pong</i> and <i>Space Time Quest</i> . <i>Journal of Physics: Conference Series</i> , 2012, 363, 012057.	0.4	4
108	IMPLICATIONS FOR THE ORIGIN OF GRB 051103 FROM LIGO OBSERVATIONS. <i>Astrophysical Journal</i> , 2012, 755, 2.	4.5	60

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109	Publisher's Note: Search for gravitational waves associated with the August 2006 timing glitch of the Vela pulsar [Phys. Rev. D83, 042001 (2011)]. Physical Review D, 2012, 85, .	4.7	2
110	Publisher's Note: Search for gravitational waves from binary black hole inspiral, merger, and ringdown [Phys. Rev. D83, 122005 (2011)]. Physical Review D, 2012, 85, .	4.7	0
111	Publisher's Note: Search for gravitational waves from compact binary coalescence in LIGO and Virgo data from S5 and VSR1 [Phys. Rev. D82, 102001 (2010)]. Physical Review D, 2012, 85, .	4.7	2
112	The effect of mirror surface distortions on higher order Laguerre-Gauss modes. Journal of Physics: Conference Series, 2012, 363, 012005.	0.4	0
113	Scientific objectives of Einstein Telescope. Classical and Quantum Gravity, 2012, 29, 124013.	4.0	355
114	LAGUERRE-GAUSS BEAMS FOR FUTURE GRAVITATIONAL WAVE DETECTORS. , 2012, , .		0
115	Search for gravitational waves associated with the August 2006 timing glitch of the Vela pulsar. Physical Review D, 2011, 83, .	4.7	54
116	Higher order Laguerre-Gauss mode degeneracy in realistic, high finesse cavities. Physical Review D, 2011, 84, .	4.7	40
117	Search for gravitational waves from binary black hole inspiral, merger, and ringdown. Physical Review D, 2011, 83, .	4.7	85
118	SEARCH FOR GRAVITATIONAL WAVE BURSTS FROM SIX MAGNETARS. Astrophysical Journal Letters, 2011, 734, L35.	8.3	55
119	BEATING THE SPIN-DOWN LIMIT ON GRAVITATIONAL WAVE EMISSION FROM THE VELA PULSAR. Astrophysical Journal, 2011, 737, 93.	4.5	89
120	Sensitivity studies for third-generation gravitational wave observatories. Classical and Quantum Gravity, 2011, 28, 094013.	4.0	644
121	Publisher's Note: Search for gravitational waves associated with the August 2006 timing glitch of the Vela pulsar [Phys. Rev. D83, 042001 (2011)]. Physical Review D, 2011, 83, .	4.7	0
122	Directional Limits on Persistent Gravitational Waves Using LIGO S5 Science Data. Physical Review Letters, 2011, 107, 271102.	7.8	94
123	A gravitational wave observatory operating beyond the quantum shot-noise limit. Nature Physics, 2011, 7, 962-965.	16.7	716
124	FIRST SEARCH FOR GRAVITATIONAL WAVES FROM THE YOUNGEST KNOWN NEUTRON STAR. Astrophysical Journal, 2010, 722, 1504-1513.	4.5	104
125	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
126	The third generation of gravitational wave observatories and their science reach. Classical and Quantum Gravity, 2010, 27, 084007.	4.0	287

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127	The Einstein Telescope: a third-generation gravitational wave observatory. <i>Classical and Quantum Gravity</i> , 2010, 27, 194002.	4.0	1,211
128	Search for gravitational waves from compact binary coalescence in LIGO and Virgo data from S5 and VSR1. <i>Physical Review D</i> , 2010, 82, .	4.7	111
129	Experimental demonstration of higher-order Laguerre-Gauss mode interferometry. <i>Physical Review D</i> , 2010, 82, .	4.7	35
130	All-sky search for gravitational-wave bursts in the first joint LIGO-GEO-Virgo run. <i>Physical Review D</i> , 2010, 81, .	4.7	107
131	Predictions for the rates of compact binary coalescences observable by ground-based gravitational-wave detectors. <i>Classical and Quantum Gravity</i> , 2010, 27, 173001.	4.0	956
132	SEARCH FOR GRAVITATIONAL-WAVE INSPIRAL SIGNALS ASSOCIATED WITH SHORT GAMMA-RAY BURSTS DURING LIGO'S FIFTH AND VIRGO'S FIRST SCIENCE RUN. <i>Astrophysical Journal</i> , 2010, 715, 1453-1461.	4.5	90