

Matteo Leonardi

List of Publications by Year in descending order

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Version: 2024-02-01

128
papers

47,353
citations

17405

63
h-index

14702

127
g-index

130
all docs

130
docs citations

130
times ranked

16405
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of Gravitational Waves from a Binary Black Hole Merger. <i>Physical Review Letters</i> , 2016, 116, 061102.	2.9	8,753
2	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. <i>Physical Review Letters</i> , 2017, 119, 161101.	2.9	6,413
3	Multi-messenger Observations of a Binary Neutron Star Merger [*] . <i>Astrophysical Journal Letters</i> , 2017, 848, L12.	3.0	2,805
4	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2016, 116, 241103.	2.9	2,701
5	Advanced Virgo: a second-generation interferometric gravitational wave detector. <i>Classical and Quantum Gravity</i> , 2015, 32, 024001.	1.5	2,530
6	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. <i>Astrophysical Journal Letters</i> , 2017, 848, L13.	3.0	2,314
7	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. <i>Physical Review Letters</i> , 2017, 118, 221101.	2.9	1,987
8	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. <i>Physical Review Letters</i> , 2017, 119, 141101.	2.9	1,600
9	GW170817: Measurements of Neutron Star Radii and Equation of State. <i>Physical Review Letters</i> , 2018, 121, 161101.	2.9	1,473
10	Tests of General Relativity with GW150914. <i>Physical Review Letters</i> , 2016, 116, 221101.	2.9	1,224
11	Characterization of the LIGO detectors during their sixth science run. <i>Classical and Quantum Gravity</i> , 2015, 32, 115012.	1.5	1,029
12	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. <i>Astrophysical Journal Letters</i> , 2017, 851, L35.	3.0	968
13	Binary Black Hole Mergers in the First Advanced LIGO Observing Run. <i>Physical Review X</i> , 2016, 6, .	2.8	898
14	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2018, 21, 3.	8.2	808
15	Properties of the Binary Neutron Star Merger GW170817. <i>Physical Review X</i> , 2019, 9, .	2.8	728
16	A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , 2017, 551, 85-88.	13.7	674
17	Properties of the Binary Black Hole Merger GW150914. <i>Physical Review Letters</i> , 2016, 116, 241102.	2.9	673
18	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. <i>Astrophysical Journal Letters</i> , 2016, 818, L22.	3.0	633

#	ARTICLE	IF	CITATIONS
19	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. <i>Physical Review Letters</i> , 2016, 116, 131103.	2.9	466
20	Observation of Gravitational Waves from Two Neutron Star–Black Hole Coalescences. <i>Astrophysical Journal Letters</i> , 2021, 915, L5.	3.0	453
21	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. <i>Living Reviews in Relativity</i> , 2020, 23, 3.	8.2	447
22	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. <i>Living Reviews in Relativity</i> , 2016, 19, 1.	8.2	427
23	Tests of General Relativity with GW170817. <i>Physical Review Letters</i> , 2019, 123, 011102.	2.9	370
24	KAGRA: 2.5 generation interferometric gravitational wave detector. <i>Nature Astronomy</i> , 2019, 3, 35-40.	4.2	331
25	GW150914: First results from the search for binary black hole coalescence with Advanced LIGO. <i>Physical Review D</i> , 2016, 93, .	1.6	315
26	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. <i>Physical Review Letters</i> , 2016, 116, 131102.	2.9	269
27	THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914. <i>Astrophysical Journal Letters</i> , 2016, 833, L1.	3.0	230
28	Characterization of transient noise in Advanced LIGO relevant to gravitational wave signal GW150914. <i>Classical and Quantum Gravity</i> , 2016, 33, 134001.	1.5	225
29	LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914. <i>Astrophysical Journal Letters</i> , 2016, 826, L13.	3.0	210
30	Overview of KAGRA: Detector design and construction history. <i>Progress of Theoretical and Experimental Physics</i> , 2021, 2021, .	1.8	198
31	Upper Limits on the Stochastic Gravitational-Wave Background from Advanced LIGO’s First Observing Run. <i>Physical Review Letters</i> , 2017, 118, 121101.	2.9	194
32	Upper limits on the isotropic gravitational-wave background from Advanced LIGO and Advanced Virgo’s third observing run. <i>Physical Review D</i> , 2021, 104, .	1.6	192
33	Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 851, L16.	3.0	189
34	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. <i>Physical Review Letters</i> , 2018, 120, 091101.	2.9	166
35	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L39.	3.0	156
36	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.	3.0	146

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37	Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory. <i>Astrophysical Journal Letters</i> , 2017, 850, L35.	3.0	135
38	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. <i>Astrophysical Journal</i> , 2017, 839, 12.	1.6	131
39	GRAVITATIONAL WAVES FROM KNOWN PULSARS: RESULTS FROM THE INITIAL DETECTOR ERA. <i>Astrophysical Journal</i> , 2014, 785, 119.	1.6	125
40	Observing gravitational-wave transient GW150914 with minimal assumptions. <i>Physical Review D</i> , 2016, 93, .	1.6	119
41	Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. <i>Physical Review X</i> , 2016, 6, .	2.8	106
42	Directly comparing GW150914 with numerical solutions of Einstein's equations for binary black hole coalescence. <i>Physical Review D</i> , 2016, 94, .	1.6	102
43	Effects of waveform model systematics on the interpretation of GW150914. <i>Classical and Quantum Gravity</i> , 2017, 34, 104002.	1.5	98
44	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. <i>Astrophysical Journal</i> , 2019, 875, 160.	1.6	97
45	Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGO's first observing run. <i>Classical and Quantum Gravity</i> , 2018, 35, 065010.	1.5	94
46	High-energy neutrino follow-up search of gravitational wave event GW150914 with ANTARES and IceCube. <i>Physical Review D</i> , 2016, 93, .	1.6	92
47	Constraints on cosmic strings using data from the first Advanced LIGO observing run. <i>Physical Review D</i> , 2018, 97, .	1.6	88
48	Constraints on Cosmic Strings Using Data from the Third Advanced LIGO's Virgo Observing Run. <i>Physical Review Letters</i> , 2021, 126, 241102.	2.9	87
49	Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009's 2010 LIGO and Virgo Data. <i>Physical Review Letters</i> , 2014, 113, 231101.	2.9	86
50	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , 2018, 120, 201102.	2.9	85
51	Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , 2017, 118, 121102.	2.9	84
52	Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , 2018, 121, 231103.	2.9	77
53	Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. <i>Physical Review D</i> , 2017, 96, .	1.6	73
54	On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L40.	3.0	73

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55	All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. <i>Physical Review D</i> , 2017, 95, .	1.6	69
56	The basic physics of the binary black hole merger GW150914. <i>Annalen Der Physik</i> , 2017, 529, 1600209.	0.9	69
57	Constraints on Cosmic Strings from the LIGO-Virgo Gravitational-Wave Detectors. <i>Physical Review Letters</i> , 2014, 112, 131101.	2.9	68
58	First Search for Nontensorial Gravitational Waves from Known Pulsars. <i>Physical Review Letters</i> , 2018, 120, 031104.	2.9	68
59	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. <i>Astrophysical Journal</i> , 2015, 813, 39.	1.6	66
60	Overview of KAGRA: Calibration, detector characterization, physical environmental monitors, and the geophysics interferometer. <i>Progress of Theoretical and Experimental Physics</i> , 2021, 2021, .	1.8	66
61	Directed search for continuous gravitational waves from the Galactic center. <i>Physical Review D</i> , 2013, 88, .	1.6	65
62	All-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2017, 96, .	1.6	64
63	SUPPLEMENT: α THE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914 (2016, <i>ApJL</i> , 833, L1). <i>Astrophysical Journal, Supplement Series</i> , 2016, 227, 14.	3.0	63
64	Frequency-Dependent Squeezed Vacuum Source for Broadband Quantum Noise Reduction in Advanced Gravitational-Wave Detectors. <i>Physical Review Letters</i> , 2020, 124, 171101.	2.9	63
65	Search for anisotropic gravitational-wave backgrounds using data from Advanced LIGO and Advanced Virgo's first three observing runs. <i>Physical Review D</i> , 2021, 104, .	1.6	62
66	First all-sky search for continuous gravitational waves from unknown sources in binary systems. <i>Physical Review D</i> , 2014, 90, .	1.6	60
67	First targeted search for gravitational-wave bursts from core-collapse supernovae in data of first-generation laser interferometer detectors. <i>Physical Review D</i> , 2016, 94, .	1.6	60
68	First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. <i>Physical Review D</i> , 2017, 96, .	1.6	60
69	Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model. <i>Physical Review D</i> , 2017, 95, .	1.6	59
70	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. <i>Astrophysical Journal, Supplement Series</i> , 2014, 211, 7.	3.0	57
71	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.	1.6	52
72	Directed search for gravitational waves from Scorpius X-1 with initial LIGO data. <i>Physical Review D</i> , 2015, 91, .	1.6	47

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73	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. <i>Physical Review D</i> , 2017, 96, .	1.6	47
74	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.	1.6	46
75	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2018, 97, .	1.6	46
76	First cryogenic test operation of underground km-scale gravitational-wave observatory KAGRA. <i>Classical and Quantum Gravity</i> , 2019, 36, 165008.	1.5	45
77	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.	3.0	44
78	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.	1.5	42
79	All-sky search for continuous gravitational waves from isolated neutron stars in the early O3 LIGO data. <i>Physical Review D</i> , 2021, 104, .	1.6	42
80	Calibration of advanced Virgo and reconstruction of the gravitational wave signal $h(t)$ (t) T_j ETQq0 0 0 rBT /Overlock 10 Tf	1.5	41
81	Search for high-energy neutrinos from gravitational wave event GW151226 and candidate LVT151012 with ANTARES and IceCube. <i>Physical Review D</i> , 2017, 96, .	1.6	40
82	Searching for stochastic gravitational waves using data from the two colocated LIGO Hanford detectors. <i>Physical Review D</i> , 2015, 91, .	1.6	39
83	Searches for Continuous Gravitational Waves from Young Supernova Remnants in the Early Third Observing Run of Advanced LIGO and Virgo. <i>Astrophysical Journal</i> , 2021, 921, 80.	1.6	39
84	Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in Virgo VSR4 data. <i>Physical Review D</i> , 2015, 91, .	1.6	37
85	Constraining the $\langle \dot{p} \rangle$ -Mode Tidal Instability with GW170817. <i>Physical Review Letters</i> , 2019, 122, 061104.	2.9	36
86	Search for gravitational radiation from intermediate mass black hole binaries in data from the second LIGO-Virgo joint science run. <i>Physical Review D</i> , 2014, 89, .	1.6	35
87	Comprehensive all-sky search for periodic gravitational waves in the sixth science run LIGO data. <i>Physical Review D</i> , 2016, 94, .	1.6	35
88	Implementation of an \mathcal{F} -statistic all-sky search for continuous gravitational waves in Virgo VSR1 data. <i>Classical and Quantum Gravity</i> , 2014, 31, 165014.	1.5	34
89	Search for Gravitational Waves Associated with $\dot{\gamma}^3$ -ray Bursts Detected by the Interplanetary Network. <i>Physical Review Letters</i> , 2014, 113, 011102.	2.9	32
90	First low frequency all-sky search for continuous gravitational wave signals. <i>Physical Review D</i> , 2016, 93, .	1.6	32

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91	Diving below the Spin-down Limit: Constraints on Gravitational Waves from the Energetic Young Pulsar PSR J0537-6910. <i>Astrophysical Journal Letters</i> , 2021, 913, L27.	3.0	32
92	Search for long-lived gravitational-wave transients coincident with long gamma-ray bursts. <i>Physical Review D</i> , 2013, 88, .	1.6	31
93	Results of the deepest all-sky survey for continuous gravitational waves on LIGO S6 data running on the Einstein@Home volunteer distributed computing project. <i>Physical Review D</i> , 2016, 94, .	1.6	31
94	Overview of KAGRA: KAGRA science. <i>Progress of Theoretical and Experimental Physics</i> , 2021, 2021, .	1.8	31
95	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.	1.6	30
96	Multimessenger search for sources of gravitational waves and high-energy neutrinos: Initial results for LIGO-Virgo and IceCube. <i>Physical Review D</i> , 2014, 90, .	1.6	29
97	Methods and results of a search for gravitational waves associated with gamma-ray bursts using the GEO 600, LIGO, and Virgo detectors. <i>Physical Review D</i> , 2014, 89, .	1.6	29
98	All-sky search for long-duration gravitational wave transients with initial LIGO. <i>Physical Review D</i> , 2016, 93, .	1.6	29
99	Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005â€“2010. <i>Physical Review D</i> , 2014, 89, .	1.6	28
100	The Advanced Virgo detector. <i>Journal of Physics: Conference Series</i> , 2015, 610, 012014.	0.3	27
101	Application of a Hough search for continuous gravitational waves on data from the fifth LIGO science run. <i>Classical and Quantum Gravity</i> , 2014, 31, 085014.	1.5	21
102	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. <i>Progress of Theoretical and Experimental Physics</i> , 2022, 2022, .	1.8	20
103	Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544. <i>Physical Review D</i> , 2017, 95, .	1.6	19
104	All-sky search for long-duration gravitational-wave bursts in the third Advanced LIGO and Advanced Virgo run. <i>Physical Review D</i> , 2021, 104, .	1.6	19
105	All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run. <i>Classical and Quantum Gravity</i> , 2018, 35, 065009.	1.5	18
106	Search of the Orion spur for continuous gravitational waves using a loosely coherent algorithm on data from LIGO interferometers. <i>Physical Review D</i> , 2016, 93, .	1.6	17
107	Search for transient gravitational waves in coincidence with short-duration radio transients during 2007â€“2013. <i>Physical Review D</i> , 2016, 93, .	1.6	14
108	Measurement of optical losses in a high-finesse 300Åm filter cavity for broadband quantum noise reduction in gravitational-wave detectors. <i>Physical Review D</i> , 2018, 98, .	1.6	13

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109	The Current Status and Future Prospects of KAGRA, the Large-Scale Cryogenic Gravitational Wave Telescope Built in the Kamioka Underground. <i>Galaxies</i> , 2022, 10, 63.	1.1	13
110	Prospects for improving the sensitivity of the cryogenic gravitational wave detector KAGRA. <i>Physical Review D</i> , 2020, 102, .	1.6	12
111	Reconstruction of the gravitational wave signal $h(t)$ during the Virgo science runs and independent validation with a photon calibrator. <i>Classical and Quantum Gravity</i> , 2014, 31, 165013.	1.5	10
112	An arm length stabilization system for KAGRA and future gravitational-wave detectors. <i>Classical and Quantum Gravity</i> , 2020, 37, 035004.	1.5	10
113	Status of Advanced Virgo. <i>EPJ Web of Conferences</i> , 2018, 182, 02003.	0.1	9
114	Vibration isolation system with a compact damping system for power recycling mirrors of KAGRA. <i>Classical and Quantum Gravity</i> , 2019, 36, 095015.	1.5	9
115	Advanced Virgo Status. <i>Journal of Physics: Conference Series</i> , 2020, 1342, 012010.	0.3	9
116	Application of independent component analysis to the iKAGRA data. <i>Progress of Theoretical and Experimental Physics</i> , 2020, 2020, .	1.8	7
117	Vibration isolation systems for the beam splitter and signal recycling mirrors of the KAGRA gravitational wave detector. <i>Classical and Quantum Gravity</i> , 2021, 38, 065011.	1.5	7
118	Status of the Advanced Virgo gravitational wave detector. <i>International Journal of Modern Physics A</i> , 2017, 32, 1744003.	0.5	6
119	Control of a filter cavity with coherent control sidebands. <i>Physical Review D</i> , 2020, 102, .	1.6	6
120	3D characterization of low optical absorption structures in large crystalline sapphire substrates for gravitational wave detectors. <i>Scientific Reports</i> , 2021, 11, 2654.	1.6	5
121	Automated source of squeezed vacuum states driven by finite state machine based software. <i>Review of Scientific Instruments</i> , 2021, 92, 054504.	0.6	3
122	Progress and challenges in advanced ground-based gravitational-wave detectors. <i>General Relativity and Gravitation</i> , 2014, 46, 1.	0.7	2
123	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
124	Improving the stability of frequency-dependent squeezing with bichromatic control of filter cavity length, alignment, and incident beam pointing. <i>Physical Review D</i> , 2022, 105, .	1.6	2
125	Efficient second harmonic generation with compact design: double-pass and cavity configurations. <i>Laser Physics</i> , 2018, 28, 115401.	0.6	1
126	Radiative Cooling of the Thermally Isolated System in KAGRA Gravitational Wave Telescope. <i>Journal of Physics: Conference Series</i> , 2021, 1857, 012002.	0.3	1

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127	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. , 2016, 19, 1.		1
128	Advanced Virgo Status. , 2017, , .		0