

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
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130
all docs

130
docs citations

130
times ranked

16405
citing authors

#	ARTICLE	IF	CITATIONS
1	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	1.8	20
2	The Current Status and Future Prospects of KAGRA, the Large-Scale Cryogenic Gravitational Wave Telescope Built in the Kamioka Underground. Galaxies, 2022, 10, 63.	1.1	13
3	Improving the stability of frequency-dependent squeezing with bichromatic control of filter cavity length, alignment, and incident beam pointing. Physical Review D, 2022, 105, .	1.6	2
4	Overview of KAGRA: Detector design and construction history. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	198
5	Overview of KAGRA: KAGRA science. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	31
6	Overview of KAGRA: Calibration, detector characterization, physical environmental monitors, and the geophysics interferometer. Progress of Theoretical and Experimental Physics, 2021, 2021, .	1.8	66
7	Vibration isolation systems for the beam splitter and signal recycling mirrors of the KAGRA gravitational wave detector. Classical and Quantum Gravity, 2021, 38, 065011.	1.5	7
8	Radiative Cooling of the Thermally Isolated System in KAGRA Gravitational Wave Telescope. Journal of Physics: Conference Series, 2021, 1857, 012002.	0.3	1
9	Automated source of squeezed vacuum states driven by finite state machine based software. Review of Scientific Instruments, 2021, 92, 054504.	0.6	3
10	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
11	Observation of Gravitational Waves from Two Neutron Star–Black Hole Coalescences. Astrophysical Journal Letters, 2021, 915, L5.	3.0	453
12	Constraints on Cosmic Strings Using Data from the Third Advanced LIGO–Virgo Observing Run. Physical Review Letters, 2021, 126, 241102.	2.9	87
13	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
14	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
15	3D characterization of low optical absorption structures in large crystalline sapphire substrates for gravitational wave detectors. Scientific Reports, 2021, 11, 2654.	1.6	5
16	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
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	Application of independent component analysis to the iKAGRA data. Progress of Theoretical and Experimental Physics, 2020, 2020, .	1.8	7
21	Prospects for improving the sensitivity of the cryogenic gravitational wave detector KAGRA. Physical Review D, 2020, 102, .	1.6	12
22	Control of a filter cavity with coherent control sidebands. Physical Review D, 2020, 102, .	1.6	6
23	Advanced Virgo Status. Journal of Physics: Conference Series, 2020, 1342, 012010.	0.3	9
24	An arm length stabilization system for KAGRA and future gravitational-wave detectors. Classical and Quantum Gravity, 2020, 37, 035004.	1.5	10
25	Frequency-Dependent Squeezed Vacuum Source for Broadband Quantum Noise Reduction in Advanced Gravitational-Wave Detectors. Physical Review Letters, 2020, 124, 171101.	2.9	63
26	First cryogenic test operation of underground km-scale gravitational-wave observatory KAGRA. Classical and Quantum Gravity, 2019, 36, 165008.	1.5	45
27	Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102.	2.9	370
28	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
29	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160.	1.6	97
30	Vibration isolation system with a compact damping system for power recycling mirrors of KAGRA. Classical and Quantum Gravity, 2019, 36, 095015.	1.5	9
31	Constraining the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle -\text{Mode} \hat{\text{a}} \text{e} \text{c} \langle \text{mml:math} \rangle \text{xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle \text{mml:mi} \rangle \text{g} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle -\text{Mode Tidal Instability with GW170817. Physical Review Letters, 2019, 122, 061104.$	2.9	36
32	Properties of the Binary Neutron Star Merger GW170817. Physical Review X, 2019, 9, .	2.8	728
33	KAGRA: 2.5 generation interferometric gravitational wave detector. Nature Astronomy, 2019, 3, 35-40.	4.2	331
34	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
35	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. Physical Review Letters, 2018, 120, 091101.	2.9	166
36	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

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37	First Search for Nontensorial Gravitational Waves from Known Pulsars. <i>Physical Review Letters</i> , 2018, 120, 031104.	2.9	68
38	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
39	Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , 2018, 121, 231103.	2.9	77
40	GW170817: Measurements of Neutron Star Radii and Equation of State. <i>Physical Review Letters</i> , 2018, 121, 161101.	2.9	1,473
41	Calibration of advanced Virgo and reconstruction of the gravitational wave signal $h(t)$ (t) Tj ETQq1 1 0.784314 rgBT /Overdo	1.5	41
42	Status of Advanced Virgo. <i>EPJ Web of Conferences</i> , 2018, 182, 02003.	0.1	9
43	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , 2018, 120, 201102.	2.9	85
44	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2018, 97, .	1.6	46
45	Constraints on cosmic strings using data from the first Advanced LIGO observing run. <i>Physical Review D</i> , 2018, 97, .	1.6	88
46	Efficient second harmonic generation with compact design: double-pass and cavity configurations. <i>Laser Physics</i> , 2018, 28, 115401.	0.6	1
47	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
48	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. , 2018, 21, 1.		2
49	All-sky search for short gravitational-wave bursts in the first Advanced LIGO run. <i>Physical Review D</i> , 2017, 95, .	1.6	69
50	Effects of waveform model systematics on the interpretation of GW150914. <i>Classical and Quantum Gravity</i> , 2017, 34, 104002.	1.5	98
51	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
52	Directional Limits on Persistent Gravitational Waves from Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , 2017, 118, 121102.	2.9	84
53	First Search for Gravitational Waves from Known Pulsars with Advanced LIGO. <i>Astrophysical Journal</i> , 2017, 839, 12.	1.6	131
54	The basic physics of the binary black hole merger GW150914. <i>Annalen Der Physik</i> , 2017, 529, 1600209.	0.9	69

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55	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
56	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
57	A gravitational-wave standard siren measurement of the Hubble constant. <i>Nature</i> , 2017, 551, 85-88.	13.7	674
58	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. <i>Physical Review Letters</i> , 2017, 119, 161101.	2.9	6,413
59	Multi-messenger Observations of a Binary Neutron Star Merger [*] . <i>Astrophysical Journal Letters</i> , 2017, 848, L12.	3.0	2,805
60	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
61	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
62	All-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2017, 96, .	1.6	64
63	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
64	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
65	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
66	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L39.	3.0	156
67	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
68	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
69	Search for continuous gravitational waves from neutron stars in globular cluster NGC 6544. <i>Physical Review D</i> , 2017, 95, .	1.6	19
70	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
71	Status of the Advanced Virgo gravitational wave detector. <i>International Journal of Modern Physics A</i> , 2017, 32, 1744003.	0.5	6
72	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

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73	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
74	On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L40.	3.0	73
75	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. <i>Astrophysical Journal Letters</i> , 2017, 851, L35.	3.0	968
76	Advanced Virgo Status. , 2017, , .		0
77	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
78	SUPPLEMENT: â€œTHE RATE OF BINARY BLACK HOLE MERGERS INFERRED FROM ADVANCED LIGO OBSERVATIONS SURROUNDING GW150914â€•(2016, <i>ApJL</i> , 833, L1). <i>Astrophysical Journal</i> , Supplement Series, 2016, 227, 14.	3.0	63
79	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
80	Improved Analysis of GW150914 Using a Fully Spin-Precessing Waveform Model. <i>Physical Review X</i> , 2016, 6, .	2.8	106
81	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
82	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
83	LOCALIZATION AND BROADBAND FOLLOW-UP OF THE GRAVITATIONAL-WAVE TRANSIENT GW150914. <i>Astrophysical Journal Letters</i> , 2016, 826, L13.	3.0	210
84	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
85	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
86	UPPER LIMITS ON THE RATES OF BINARY NEUTRON STAR AND NEUTRON STARâ€“BLACK HOLE MERGERS FROM ADVANCED LIGOâ€™S FIRST OBSERVING RUN. <i>Astrophysical Journal Letters</i> , 2016, 832, L21.	3.0	146
87	Directly comparing GW150914 with numerical solutions of Einsteinâ€™s equations for binary black hole coalescence. <i>Physical Review D</i> , 2016, 94, .	1.6	102
88	All-sky search for long-duration gravitational wave transients with initial LIGO. <i>Physical Review D</i> , 2016, 93, .	1.6	29
89	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
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	GW150914: First results from the search for binary black hole coalescence with Advanced LIGO. Physical Review D, 2016, 93, .	1.6	315
92	Search for transient gravitational waves in coincidence with short-duration radio transients during 2007â€“2013. Physical Review D, 2016, 93, .	1.6	14
93	High-energy neutrino follow-up search of gravitational wave event GW150914 with ANTARES and IceCube. Physical Review D, 2016, 93, .	1.6	92
94	GW150914: Implications for the Stochastic Gravitational-Wave Background from Binary Black Holes. Physical Review Letters, 2016, 116, 131102.	2.9	269
95	GW150914: The Advanced LIGO Detectors in the Era of First Discoveries. Physical Review Letters, 2016, 116, 131103.	2.9	466
96	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
97	Observing gravitational-wave transient GW150914 with minimal assumptions. Physical Review D, 2016, 93, .	1.6	119
98	Tests of General Relativity with GW150914. Physical Review Letters, 2016, 116, 221101.	2.9	1,224
99	Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 2016, 116, 241102.	2.9	673
100	GW151226: Observation of Gravitational Waves from a 22-Solar-Mass Binary Black Hole Coalescence. Physical Review Letters, 2016, 116, 241103.	2.9	2,701
101	Binary Black Hole Mergers in the First Advanced LIGO Observing Run. Physical Review X, 2016, 6, .	2.8	898
102	ASTROPHYSICAL IMPLICATIONS OF THE BINARY BLACK HOLE MERGER GW150914. Astrophysical Journal Letters, 2016, 818, L22.	3.0	633
103	Observation of Gravitational Waves from a Binary Black Hole Merger. Physical Review Letters, 2016, 116, 061102.	2.9	8,753
104	Prospects for Observing and Localizing Gravitational-Wave Transients with Advanced LIGO and Advanced Virgo. , 2016, 19, 1.		1
105	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
106	Searching for stochastic gravitational waves using data from the two colocated LIGO Hanford detectors. Physical Review D, 2015, 91, .	1.6	39
107	Directed search for gravitational waves from Scorpius X-1 with initial LIGO data. Physical Review D, 2015, 91, .	1.6	47
108	Characterization of the LIGO detectors during their sixth science run. Classical and Quantum Gravity, 2015, 32, 115012.	1.5	1,029

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109	The Advanced Virgo detector. <i>Journal of Physics: Conference Series</i> , 2015, 610, 012014.	0.3	27
110	SEARCHES FOR CONTINUOUS GRAVITATIONAL WAVES FROM NINE YOUNG SUPERNOVA REMNANTS. <i>Astrophysical Journal</i> , 2015, 813, 39.	1.6	66
111	Advanced Virgo: a second-generation interferometric gravitational wave detector. <i>Classical and Quantum Gravity</i> , 2015, 32, 024001.	1.5	2,530
112	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
113	FIRST SEARCHES FOR OPTICAL COUNTERPARTS TO GRAVITATIONAL-WAVE CANDIDATE EVENTS. <i>Astrophysical Journal, Supplement Series</i> , 2014, 211, 7.	3.0	57
114	First all-sky search for continuous gravitational waves from unknown sources in binary systems. <i>Physical Review D</i> , 2014, 90, .	1.6	60
115	Constraints on Cosmic Strings from the LIGO-Virgo Gravitational-Wave Detectors. <i>Physical Review Letters</i> , 2014, 112, 131101.	2.9	68
116	Improved Upper Limits on the Stochastic Gravitational-Wave Background from 2009–2010 LIGO and Virgo Data. <i>Physical Review Letters</i> , 2014, 113, 231101.	2.9	86
117	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
118	Progress and challenges in advanced ground-based gravitational-wave detectors. <i>General Relativity and Gravitation</i> , 2014, 46, 1.	0.7	2
119	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.	1.5	34
120	GRAVITATIONAL WAVES FROM KNOWN PULSARS: RESULTS FROM THE INITIAL DETECTOR ERA. <i>Astrophysical Journal</i> , 2014, 785, 119.	1.6	125
121	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
122	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
123	Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005–2010. <i>Physical Review D</i> , 2014, 89, .	1.6	28
124	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
125	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
126	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

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127	Search for long-lived gravitational-wave transients coincident with long gamma-ray bursts. Physical Review D, 2013, 88, .	1.6	31
128	Directed search for continuous gravitational waves from the Galactic center. Physical Review D, 2013, 88, .	1.6	65