Riccardo Ciolfi

List of Publications by Year
in descending order

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126 papers	35,074 citations	17440 63 h-index	14759 127 g-index
129 all docs	129 docs citations	129 times ranked	13408 citing authors

#	Article	IF	Citations
1	GW170817: Observation of Gravitational Waves from a Binary Neutron Star Inspiral. Physical Review Letters, 2017, 119, 161101.	7.8	6,413
2	Multi-messenger Observations of a Binary Neutron Star Merger[*]. Astrophysical Journal Letters, 2017, 848, L12.	8.3	2,805
3	Gravitational Waves and Gamma-Rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A. Astrophysical Journal Letters, 2017, 848, L13.	8.3	2,314
4	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, .	8.9	2,022
5	GW170104: Observation of a 50-Solar-Mass Binary Black Hole Coalescence at Redshift 0.2. Physical Review Letters, 2017, 118, 221101.	7.8	1,987
6	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101.	7.8	1,600
7	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	7.8	1,473
8	GWTC-2: Compact Binary Coalescences Observed by LIGO and Virgo during the First Half of the Third Observing Run. Physical Review X, 2021, 11, .	8.9	1,097
9	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.	8.3	1,090
10	GW190425: Observation of a Compact Binary Coalescence with Total MassÂâˆ¼Â3.4 M_{âŠ™}. Astrophysical Journal Letters, 2020, 892, L3.	8.3	1,049
11	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. Astrophysical Journal Letters, 2017, 851, L35.	8.3	968
12	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><mml:mi></mml:mi><mml:mo stretchy="false">âŠ™</mml:mo></mml:msub></mml:mrow></mml:math>. Physical Review Letters, 2020, 125, 101102.	7.8	836
13	Properties of the Binary Neutron Star Merger GW170817. Physical Review X, 2019, 9, .	8.9	728
14	Spectroscopic identification of r-process nucleosynthesis in a double neutron-star merger. Nature, 2017, 551, 67-70.	27.8	715
15	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.	8.3	566
16	Population Properties of Compact Objects from the Second LIGOâ€“Virgo Gravitational-Wave Transient Catalog. Astrophysical Journal Letters, 2021, 913, L7.	8.3	514
17	Tests of general relativity with the binary black hole signals from the LIGO-Virgo catalog GWTC-1. Physical Review D, 2019, 100, .	4.7	470
18	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2020, 23, 3.	26.7	447

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19	Properties and Astrophysical Implications of the 150 M_{âŠ™} Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13.	8.3	406
20	GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. Physical Review D, 2020, 102, .	4.7	394
21	Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102.	7.8	370
22	Tests of general relativity with binary black holes from the second LIGO-Virgo gravitational-wave transient catalog. Physical Review D, 2021, 103, .	4.7	338
23	Increasing the Astrophysical Reach of the Advanced Virgo Detector via the Application of Squeezed Vacuum States of Light. Physical Review Letters, 2019, 123, 231108.	7.8	254
24	Late Time Afterglow Observations Reveal a Collimated Relativistic Jet in the Ejecta of the Binary Neutron Star Merger GW170817. Physical Review Letters, 2018, 120, 241103.	7.8	241
25	Search for the isotropic stochastic background using data from Advanced LIGOâ€™s second observing run. Physical Review D, 2019, 100, .	4.7	200
26	Search for Post-merger Gravitational Waves from the Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 851, L16.	8.3	189
27	A guide to LIGOâ€“Virgo detector noise and extraction of transient gravitational-wave signals. Classical and Quantum Gravity, 2020, 37, 055002.	4.0	188
28	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. Physical Review Letters, 2018, 120, 091101.	7.8	166
29	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated withÂGW170817. Astrophysical Journal Letters, 2017, 850, L39.	8.3	156
30	A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. Astrophysical Journal Letters, 2019, 871, L13.	8.3	145
31	A Gravitational-wave Measurement of the Hubble Constant Following the Second Observing Run of Advanced LIGO and Virgo. Astrophysical Journal, 2021, 909, 218.	4.5	144
32	General relativistic magnetohydrodynamic simulations of binary neutron star mergers forming a long-lived neutron star. Physical Review D, 2017, 95, .	4.7	136
33	The THESEUS space mission concept: science case, design and expected performances. Advances in Space Research, 2018, 62, 191-244.	2.6	133
34	Twisted-torus configurations with large toroidal magnetic fields in relativistic stars. Monthly Notices of the Royal Astronomical Society: Letters, 2013, 435, L43-L47.	3.3	121
35	Search for Subsolar Mass Ultracompact Binaries in Advanced LIGOâ€™s Second Observing Run. Physical Review Letters, 2019, 123, 161102.	7.8	119
36	MAGNETICALLY DRIVEN WINDS FROM DIFFERENTIALLY ROTATING NEUTRON STARS AND X-RAY AFTERGLOWS OF SHORT GAMMA-RAY BURSTS. Astrophysical Journal Letters, 2014, 785, L6.	8.3	117

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37	Magnetorotational instability in relativistic hypermassive neutron stars. Physical Review D, 2013, 87, .	4.7	110
38	Model comparison from LIGOâ€“Virgo data on GW170817â€™s binary components and consequences for the merger remnant. Classical and Quantum Gravity, 2020, 37, 045006.	4.0	109
39	Relativistic models of magnetars: the twisted torus magnetic field configuration. Monthly Notices of the Royal Astronomical Society, 2009, 397, 913-924.	4.4	108
40	All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. Physical Review D, 2019, 100, .	4.7	102
41	Search for Gravitational Waves from a Long-lived Remnant of the Binary Neutron Star Merger GW170817. Astrophysical Journal, 2019, 875, 160.	4.5	97
42	Short gamma-ray bursts at the dawn of the gravitational wave era. Astronomy and Astrophysics, 2016, 594, A84.	5.1	96
43	First 100Âms of a long-lived magnetized neutron star formed in a binary neutron star merger. Physical Review D, 2019, 100, .	4.7	96
44	Constraints on cosmic strings using data from the first Advanced LIGO observing run. Physical Review D, 2018, 97, .	4.7	88
45	Searches for Gravitational Waves from Known Pulsars at Two Harmonics in 2015â€“2017 LIGO Data. Astrophysical Journal, 2019, 879, 10.	4.5	88
46	On the universality of Iâ€“Loveâ€“Q relations in magnetized neutron stars. Monthly Notices of the Royal Astronomical Society: Letters, 2013, 438, L71-L75.	3.3	87
47	Structure and deformations of strongly magnetized neutron stars with twisted-torus configurations. Monthly Notices of the Royal Astronomical Society, 2010, 406, 2540-2548.	4.4	85
48	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. Physical Review Letters, 2018, 120, 201102.	7.8	85
49	Structure of stable binary neutron star merger remnants: A case study. Physical Review D, 2016, 94, .	4.7	79
50	Search for Subsolar-Mass Ultracompact Binaries in Advanced LIGOâ€™s First Observing Run. Physical Review Letters, 2018, 121, 231103.	7.8	77
51	SHORT GAMMA-RAY BURSTS IN THE â€œTIME-REVERSALâ€•SCENARIO. Astrophysical Journal Letters, 2015, 798, L36.	8.3	75
52	Binary neutron star mergers and short gamma-ray bursts: Effects of magnetic field orientation, equation of state, and mass ratio. Physical Review D, 2016, 94, .	4.7	75
53	Search for intermediate mass black hole binaries in the first observing run of Advanced LIGO. Physical Review D, 2017, 96, .	4.7	73
54	On the Progenitor of Binary Neutron Star Merger GW170817. Astrophysical Journal Letters, 2017, 850, L40.	8.3	73

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55	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.	4.5	72
56	ELECTROMAGNETIC EMISSION FROM LONG-LIVED BINARY NEUTRON STAR MERGER REMNANTS. I. FORMULATION OF THE PROBLEM. Astrophysical Journal, 2016, 819, 14.	4.5	71
57	Low-latency Gravitational-wave Alerts for Multimessenger Astronomy during the Second Advanced LIGO and Virgo Observing Run. Astrophysical Journal, 2019, 875, 161.	4.5	71
58	ELECTROMAGNETIC EMISSION FROM LONG-LIVED BINARY NEUTRON STAR MERGER REMNANTS. II. LIGHT CURVES AND SPECTRA. Astrophysical Journal, 2016, 819, 15.	4.5	70
59	Observational constraints on the optical and near-infrared emission from the neutron starâ€“black hole binary merger candidate S190814bv. Astronomy and Astrophysics, 2020, 643, A113.	5.1	70
60	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, .	4.7	69
61	General relativistic magnetohydrodynamic simulations of binary neutron star mergers with the APR4 equation of state. Classical and Quantum Gravity, 2016, 33, 164001.	4.0	68
62	First Search for Nontensorial Gravitational Waves from Known Pulsars. Physical Review Letters, 2018, 120, 031104.	7.8	68
63	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. Astrophysical Journal Letters, 2020, 902, L21.	8.3	65
64	POLOIDAL-FIELD INSTABILITY IN MAGNETIZED RELATIVISTIC STARS. Astrophysical Journal, 2012, 760, 1.	4.5	64
65	All-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2017, 96, .	4.7	64
66	INSTABILITY-DRIVEN EVOLUTION OF POLOIDAL MAGNETIC FIELDS IN RELATIVISTIC STARS. Astrophysical Journal Letters, 2011, 736, L6.	8.3	63
67	Searches for Continuous Gravitational Waves from 15 Supernova Remnants and Fomalhaut b with Advanced LIGO[*]. Astrophysical Journal, 2019, 875, 122.	4.5	61
68	First low-frequency Einstein@Home all-sky search for continuous gravitational waves in Advanced LIGO data. Physical Review D, 2017, 96, .	4.7	60
69	Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. Physical Review D, 2019, 99, .	4.7	60
70	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, .	4.7	59
71	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.	4.5	59
72	THESEUS: A key space mission concept for Multi-Messenger Astrophysics. Advances in Space Research, 2018, 62, 662-682.	2.6	56

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73	Collimated outflows from long-lived binary neutron star merger remnants. Monthly Notices of the Royal Astronomical Society: Letters, 2020, 495, L66-L70.	3.3	55
74	All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run. Physical Review D, 2019, 100, .	4.7	54
75	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, .	4.7	52
76	Directional limits on persistent gravitational waves using data from Advanced LIGOâ€™s first two observing runs. Physical Review D, 2019, 100, .	4.7	52
77	A comparison between short GRB afterglows and kilonova AT2017gfo: shedding light on kilonovae properties. Monthly Notices of the Royal Astronomical Society, 2020, 493, 3379-3397.	4.4	52
78	Observatory science with eXTP. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	50
79	The key role of magnetic fields in binary neutron star mergers. General Relativity and Gravitation, 2020, 52, 1.	2.0	48
80	Stochastic background of gravitational waves emitted by magnetars. Monthly Notices of the Royal Astronomical Society, 2011, 411, 2549-2557.	4.4	47
81	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. Physical Review D, 2017, 96, .	4.7	47
82	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.	4.5	46
83	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. Physical Review D, 2018, 97, .	4.7	46
84	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, .	4.7	46
85	Structure of stable binary neutron star merger remnants: Role of initial spin. Physical Review D, 2017, 96, .	4.7	44
86	Magnetically Driven Baryon Winds from Binary Neutron Star Merger Remnants and the Blue Kilonova of 2017 August. Astrophysical Journal Letters, 2020, 900, L35.	8.3	43
87	Calibration of advanced Virgo and reconstruction of the gravitational wave signal h (t) Tj ETQq1 1 0.784314 rgBT /Ove	4.0	41
88	Effects of chiral effective field theory equation of state on binary neutron star mergers. Physical Review D, 2018, 98, .	4.7	37
89	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.	7.8	36
90	Quantum Backaction on Kg-Scale Mirrors: Observation of Radiation Pressure Noise in the Advanced Virgo Detector. Physical Review Letters, 2020, 125, 131101.	7.8	35

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91	The THESEUS space mission: science goals, requirements and mission concept. Experimental Astronomy, 2021, 52, 183-218.	3.7	32
92	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.	4.5	30
93	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.	4.5	29
94	Accretion in strong field gravity with eXTP. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	27
95	Search for Transient Gravitational-wave Signals Associated with Magnetar Bursts during Advanced LIGOâ€™s Second Observing Run. Astrophysical Journal, 2019, 874, 163.	4.5	26
96	Turbulent magnetic field amplification in binary neutron star mergers. Physical Review D, 2022, 106, .	4.7	26
97	Short gamma-ray burst central engines. International Journal of Modern Physics D, 2018, 27, 1842004.	2.1	25
98	All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. Physical Review D, 2019, 99, .	4.7	22
99	Structure, deformations and gravitational wave emission of magnetars. Classical and Quantum Gravity, 2011, 28, 114014.	4.0	21
100	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.	4.5	20
101	Intrinsic Properties of the Engine and Jet that Powered the Short Gamma-Ray Burst Associated with GW170817. Astrophysical Journal, 2020, 898, 59.	4.5	20
102	Calibration of advanced Virgo and reconstruction of the detector strain h(t) during the observing run O3. Classical and Quantum Gravity, 2022, 39, 045006.	4.0	20
103	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20
104	Binary Neutron Star Mergers After GW170817. Frontiers in Astronomy and Space Sciences, 2020, 7, .	2.8	19
105	Robust recovery of primitive variables in relativistic ideal magnetohydrodynamics. Physical Review D, 2021, 103, .	4.7	18
106	HARM3D+NUC: A New Method for Simulating the Post-merger Phase of Binary Neutron Star Mergers with GRMHD, Tabulated EOS, and Neutrino Leakage. Astrophysical Journal, 2021, 919, 95.	4.5	17
107	SNÂ2017gci: a nearby Type I Superluminous Supernova with a bumpy tail. Monthly Notices of the Royal Astronomical Society, 2021, 502, 2120-2139.	4.4	16
108	Short gamma-ray burst jet propagation in binary neutron star merger environments. Monthly Notices of the Royal Astronomical Society, 2021, 506, 3483-3498.	4.4	16

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109	Spritz: a new fully general-relativistic magnetohydrodynamic code. Classical and Quantum Gravity, 2020, 37, 135010.	4.0	14
110	Electromagnetic counterparts of compact binary mergers. Journal of Plasma Physics, 2021, 87, .	2.1	13
111	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.	4.5	12
112	Two Steps Forward and One Step Sideways: The Propagation of Relativistic Jets in Realistic Binary Neutron Star Merger Ejecta. Astrophysical Journal Letters, 2021, 918, L6.	8.3	12
113	Multi-messenger astrophysics with THESEUS in the 2030s. Experimental Astronomy, 2021, 52, 245-275.	3.7	12
114	Modelling the magnetic field configuration of neutron stars. Astronomische Nachrichten, 2014, 335, 624-629.	1.2	11
115	Spritz: general relativistic magnetohydrodynamics with neutrinos. Classical and Quantum Gravity, 2021, 38, 085021.	4.0	10
116	X-RAY FLASHES POWERED BY THE SPINDOWN OF LONG-LIVED NEUTRON STARS. Astrophysical Journal, 2016, 829, 72.	4.5	9
117	Status of Advanced Virgo. EPJ Web of Conferences, 2018, 182, 02003.	0.3	9
118	The advanced Virgo longitudinal control system for the O2 observing run. Astroparticle Physics, 2020, 116, 102386.	4.3	9
119	Synergies of THESEUS with the large facilities of the 2030s and guest observer opportunities. Experimental Astronomy, 2021, 52, 407-437.	3.7	8
120	Magnetic field instabiities in neutron stars. Astronomische Nachrichten, 2014, 335, 285-290.	1.2	6
121	Status of the Advanced Virgo gravitational wave detector. International Journal of Modern Physics A, 2017, 32, 1744003.	1.5	6
122	A deep study of the highâ€“energy transient sky. Experimental Astronomy, 2021, 51, 1203-1223.	3.7	5
123	Close, bright, and boxy: the superluminous SN 2018hti. Monthly Notices of the Royal Astronomical Society, 2022, 512, 4484-4502.	4.4	5
124	Breakthrough Multi-Messenger Astrophysics with the THESEUS Space Mission. Galaxies, 2022, 10, 60.	3.0	3
125	Short gamma-ray bursts from binary neutron star mergers: the time-reversal scenario. , 2015, , .		2
126	Implementing a new recovery scheme for primitive variables in the general relativistic magnetohydrodynamic code Spritz. Physical Review D, 2022, 105, .	4.7	2