

Roberto De Pietri

List of Publications by Year in descending order

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108
papers

26,412
citations

50276

46
h-index

31849

101
g-index

108
all docs

108
docs citations

108
times ranked

12977
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	GW170814: A Three-Detector Observation of Gravitational Waves from a Binary Black Hole Coalescence. Physical Review Letters, 2017, 119, 141101.	7.8	1,600
6	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	7.8	1,473
7	GW170608: Observation of a 19 Solar-mass Binary Black Hole Coalescence. Astrophysical Journal Letters, 2017, 851, L35.	8.3	968
8	GW190521: A Binary Black Hole Merger with a Total Mass of $150 M_{\odot}$. Physical Review Letters, 2020, 125, 101102.	7.8	1,306
9	Properties of the Binary Neutron Star Merger GW170817. Physical Review X, 2019, 9, .	8.9	728
10	A gravitational-wave standard siren measurement of the Hubble constant. Nature, 2017, 551, 85-88.	27.8	674
11	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
12	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
13	Properties and Astrophysical Implications of the $150 M_{\odot}$ Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13.	8.3	406
14	GW190412: Observation of a binary-black-hole coalescence with asymmetric masses. Physical Review D, 2020, 102, .	4.7	394
15	Tests of General Relativity with GW170817. Physical Review Letters, 2019, 123, 011102.	7.8	370
16	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
17	Search for the isotropic stochastic background using data from Advanced LIGO's second observing run. Physical Review D, 2019, 100, .	4.7	200
18	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

#	ARTICLE	IF	CITATIONS
19	A guide to LIGO's Virgo detector noise and extraction of transient gravitational-wave signals. <i>Classical and Quantum Gravity</i> , 2020, 37, 055002.	4.0	188
20	GW170817: Implications for the Stochastic Gravitational-Wave Background from Compact Binary Coalescences. <i>Physical Review Letters</i> , 2018, 120, 091101.	7.8	166
21	Barrett's Crane model from a Boulatov's Ooguri field theory over a homogeneous space. <i>Nuclear Physics B</i> , 2000, 574, 785-806.	2.5	165
22	Estimating the Contribution of Dynamical Ejecta in the Kilonova Associated with GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L39.	8.3	156
23	A Standard Siren Measurement of the Hubble Constant from GW170817 without the Electromagnetic Counterpart. <i>Astrophysical Journal Letters</i> , 2019, 871, L13.	8.3	145
24	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
25	so (4) Plebanski action and relativistic spin-foam model. <i>Classical and Quantum Gravity</i> , 1999, 16, 2187-2196.	4.0	138
26	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.	8.3	135
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	Geometry eigenvalues and the scalar product from recoupling theory in loop quantum gravity. <i>Physical Review D</i> , 1996, 54, 2664-2690.	4.7	117
29	Model comparison from LIGO's Virgo data on GW170817's binary components and consequences for the merger remnant. <i>Classical and Quantum Gravity</i> , 2020, 37, 045006.	4.0	109
30	Accurate simulations of the dynamical bar-mode instability in full general relativity. <i>Physical Review D</i> , 2007, 75, .	4.7	102
31	All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data. <i>Physical Review D</i> , 2019, 100, .	4.7	102
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	Search for Tensor, Vector, and Scalar Polarizations in the Stochastic Gravitational-Wave Background. <i>Physical Review Letters</i> , 2018, 120, 201102.	7.8	85
34	Search for Substellar-Mass Ultracompact Binaries in Advanced LIGO's First Observing Run. <i>Physical Review Letters</i> , 2018, 121, 231103.	7.8	77
35	On the Progenitor of Binary Neutron Star Merger GW170817. <i>Astrophysical Journal Letters</i> , 2017, 850, L40.	8.3	73
36	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

#	ARTICLE	IF	CITATIONS
37	Optically targeted search for gravitational waves emitted by core-collapse supernovae during the first and second observing runs of advanced LIGO and advanced Virgo. <i>Physical Review D</i> , 2020, 101, .	4.7	69
38	Gravitational-wave Constraints on the Equatorial Ellipticity of Millisecond Pulsars. <i>Astrophysical Journal Letters</i> , 2020, 902, L21.	8.3	65
39	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
40	Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run. <i>Physical Review D</i> , 2019, 99, .	4.7	60
41	All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run. <i>Physical Review D</i> , 2019, 100, .	4.7	54
42	Feynman diagrams of generalized matrix models and the associated manifolds in dimension four. <i>Journal of Mathematical Physics</i> , 2000, 41, 6671.	1.1	52
43	Search for intermediate mass black hole binaries in the first and second observing runs of the Advanced LIGO and Virgo network. <i>Physical Review D</i> , 2019, 100, .	4.7	52
44	Directional limits on persistent gravitational waves using data from Advanced LIGO's first two observing runs. <i>Physical Review D</i> , 2019, 100, .	4.7	52
45	First narrow-band search for continuous gravitational waves from known pulsars in advanced detector data. <i>Physical Review D</i> , 2017, 96, .	4.7	47
46	Standard and generalized Newtonian gravities as 'gauge' theories of the extended Galilei group: I. The standard theory. <i>Classical and Quantum Gravity</i> , 1995, 12, 219-254.	4.0	46
47	Full band all-sky search for periodic gravitational waves in the O1 LIGO data. <i>Physical Review D</i> , 2018, 97, .	4.7	46
48	Search for gravitational waves from Scorpius X-1 in the second Advanced LIGO observing run with an improved hidden Markov model. <i>Physical Review D</i> , 2019, 100, .	4.7	46
49	On the shear instability in relativistic neutron stars. <i>Classical and Quantum Gravity</i> , 2010, 27, 114104.	4.0	45
50	Review: Dirac's Observables for the Rest-Frame Instant Form of Tetrad Gravity in a Completely Fixed 3-Orthogonal Gauge. <i>General Relativity and Gravitation</i> , 2002, 34, 877-1033.	2.0	44
51	Merger of Compact Stars in the Two-families Scenario. <i>Astrophysical Journal</i> , 2019, 881, 122.	4.5	42
52	Calibration of advanced Virgo and reconstruction of the gravitational wave signal $h(t)$ (t) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	4.0	41
53	Modeling equal and unequal mass binary neutron star mergers using public codes. <i>Physical Review D</i> , 2016, 93, .	4.7	40
54	Review: Hamiltonian Linearization of the Rest-Frame Instant Form of Tetrad Gravity in a Completely Fixed 3-Orthogonal Gauge: A Radiation Gauge for Background-Independent Gravitational Waves in a Post-Minkowskian Einstein Spacetime. <i>General Relativity and Gravitation</i> , 2004, 36, 1055-1134.	2.0	37

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55	Matrix elements of Thiemann's Hamiltonian constraint in loop quantum gravity. <i>Classical and Quantum Gravity</i> , 1997, 14, 2793-2823.	4.0	36
56	Gravitational-wave extraction from neutron-star oscillations: Comparing linear and nonlinear techniques. <i>Physical Review D</i> , 2009, 79, .	4.7	36
57	Constraining the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle p \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle - \text{Mode} \hat{\epsilon} \langle \text{mml:math} \rangle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mi} \rangle g \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle - \text{Mode Tidal Instability with GW170817. } \langle \text{mml:math} \rangle \text{Physical Review Letters. 2019. 122. 061104.}$	7.8	36
58	Dynamical non-axisymmetric instabilities in rotating relativistic stars. <i>Classical and Quantum Gravity</i> , 2007, 24, S171-S186.	4.0	35
59	Quantum Backaction on Kg-Scale Mirrors: Observation of Radiation Pressure Noise in the Advanced Virgo Detector. <i>Physical Review Letters</i> , 2020, 125, 131101.	7.8	35
60	First Demonstration of Early Warning Gravitational-wave Alerts. <i>Astrophysical Journal Letters</i> , 2021, 910, L21.	8.3	33
61	On the relation between the connection and the loop representation of quantum gravity. <i>Classical and Quantum Gravity</i> , 1997, 14, 53-69.	4.0	32
62	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
63	Spectral analysis of gravitational waves from binary neutron star merger remnants. <i>Physical Review D</i> , 2017, 96, .	4.7	31
64	A model for QCD at high density and large quark mass. <i>Physical Review D</i> , 2007, 76, .	4.7	29
65	The basis of the physical Hilbert space of lattice gauge theories. <i>Nuclear Physics B</i> , 2000, 566, 547-561.	2.5	28
66	Convective Excitation of Inertial Modes in Binary Neutron Star Mergers. <i>Physical Review Letters</i> , 2018, 120, 221101.	7.8	27
67	Numerical-relativity simulations of long-lived remnants of binary neutron star mergers. <i>Physical Review D</i> , 2020, 101, .	4.7	27
68	Binary neutron star merger simulations with different initial orbital frequency and equation of state. <i>Classical and Quantum Gravity</i> , 2016, 33, 175009.	4.0	26
69	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
70	All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run. <i>Physical Review D</i> , 2019, 99, .	4.7	22
71	Gravitational waves from oscillating accretion tori: Comparison between different approaches. <i>Physical Review D</i> , 2005, 72, .	4.7	20
72	Calibration of advanced Virgo and reconstruction of the detector strain $h(t)$ during the observing run O3. <i>Classical and Quantum Gravity</i> , 2022, 39, 045006.	4.0	20

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73	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20
74	Dynamical bar-mode instability in rotating and magnetized relativistic stars. Physical Review D, 2013, 88, .	4.7	17
75	Stiffness effects on the dynamics of the bar-mode instability of neutron stars in full general relativity. Physical Review D, 2015, 91, .	4.7	16
76	Dynamical excitation of space-time modes of compact objects. Physical Review D, 2008, 77, .	4.7	14
77	Modeling mergers of known galactic systems of binary neutron stars. Classical and Quantum Gravity, 2017, 34, 034001.	4.0	14
78	Spin networks and recoupling in loop quantum gravity. Nuclear Physics, Section B, Proceedings Supplements, 1997, 57, 251-254.	0.4	13
79	Neutron star instabilities in full general relativity using a $\hat{\Gamma}$ ideal fluid. Physical Review D, 2014, 90, .	4.7	12
80	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
81	The apeNEXT project. Nuclear Physics, Section B, Proceedings Supplements, 2002, 106-107, 173-176.	0.4	10
82	Status of Advanced Virgo. EPJ Web of Conferences, 2018, 182, 02003.	0.3	9
83	The advanced Virgo longitudinal control system for the O2 observing run. Astroparticle Physics, 2020, 116, 102386.	4.3	9
84	Advanced Virgo Status. Journal of Physics: Conference Series, 2020, 1342, 012010.	0.4	9
85	Status of APEmille. Nuclear Physics, Section B, Proceedings Supplements, 2002, 106-107, 1043-1045.	0.4	8
86	Standard and generalized Newtonian gravities as 'gauge' theories of the extended Galilei group: II. Dynamical 3-space theories. Classical and Quantum Gravity, 1995, 12, 255-272.	4.0	7
87	Status of the apeNEXT project. Nuclear Physics, Section B, Proceedings Supplements, 2003, 119, 1038-1040.	0.4	6
88	The apeNEXT project. Nuclear Physics, Section B, Proceedings Supplements, 2005, 140, 176-182.	0.4	6
89	Modulation of LISA free-fall orbits due to the Earth-Moon system. Classical and Quantum Gravity, 2010, 27, 165007.	4.0	6
90	Power-Efficient Computing: Experiences from the COSA Project. Scientific Programming, 2017, 2017, 1-14.	0.7	6

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91	Eigenvalues of the Weyl operator as observables of general relativity. <i>Classical and Quantum Gravity</i> , 1995, 12, 1279-1285.	4.0	5
92	The planar spectrum in U(N)-invariant quantum mechanics by Fock space methods: I. The bosonic case. <i>Journal of High Energy Physics</i> , 2007, 2007, 018-018.	4.7	5
93	Gauging kinematical and internal symmetry groups for extended systems: the Galilean one-time and two-times harmonic oscillators. <i>Classical and Quantum Gravity</i> , 1996, 13, 1417-1450.	4.0	4
94	APE computersâ€™ past, present and future. <i>Computer Physics Communications</i> , 2002, 147, 402-409.	7.5	4
95	Local dark matter searches with LISA. <i>Classical and Quantum Gravity</i> , 2009, 26, 094022.	4.0	4
96	Matrix model formulation of four dimensional gravity. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2001, 94, 697-700.	0.4	3
97	Bar-mode instability suppression in magnetized relativistic stars. <i>Journal of Physics: Conference Series</i> , 2013, 470, 012008.	0.4	3
98	Accurate simulations of the bar-mode instability in General Relativity. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	2
99	The HPC Testbed of the Italian Grid Infrastructure. , 2013, , .		2
100	HPC on the Grid: The Theophys Experience. <i>Journal of Grid Computing</i> , 2013, 11, 265-280.	3.9	2
101	Hamiltonian LGT in the complete Fourier analysis basis. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2000, 83-84, 926-928.	0.4	1
102	Effects of interplanetary dust on the LISA drag-free constellation. <i>Celestial Mechanics and Dynamical Astronomy</i> , 2010, 107, 255-264.	1.4	1
103	Exact and semiclassical approach to a class of singular integral operators arising in fluid mechanics and quantum field theory. <i>Journal of Physics A</i> , 2004, 37, 11379-11389.	1.6	0
104	apeNEXT: A Multi-TFlops computer for elementary particle physics. <i>Advances in Parallel Computing</i> , 2004, 13, 355-362.	0.3	0
105	Publisherâ€™s Note: Gravitational-wave extraction from neutron-star oscillations: Comparing linear and nonlinear techniques [<i>Phys. Rev. D</i> 79, 024002 (2009)]. <i>Physical Review D</i> , 2010, 81, .	4.7	0
106	Canonical â€œLoopâ€•Quantum Gravity and Spin Foam Models. , 2000, , 43-61.		0
107	Porting workflows based on small and medium parallelism applications to the Italian Grid Infrastructure. , 2014, , .		0
108	Gauging kinematical and internal symmetry groups for extended systems. , 1995, , 131-140.		0