Carlos Lousto

List of Publications by Year in descending order

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131 papers	7,659 citations	47006 47 h-index	85 g-index
134	134	134	2506
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Eccentricity estimate for black hole mergers with numerical relativity simulations. Nature Astronomy, 2022, 6, 344-349.	10.1	89
2	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20
3	Fourth RIT binary black hole simulations catalog: Extension to eccentric orbits. Physical Review D, 2022, 105, .	4.7	24
4	Numerical-relativity validation of effective-one-body waveforms in the intermediate-mass-ratio regime. Physical Review D, 2022, 105, .	4.7	11
5	Measuring the Hubble Constant with GW190521 as an Eccentric black hole Merger and Its Potential Electromagnetic Counterpart. Astrophysical Journal Letters, 2021, 908, L34.	8.3	16
6	PSR J0437-4715: The Argentine Institute of Radioastronomy 2019–2020 Observational Campaign. Astrophysical Journal, 2021, 908, 158.	4.5	5
7	Adapted gauge to small mass ratio binary black hole evolutions. Physical Review D, 2021, 103, .	4.7	8
8	Local and approximate classification of spacetimes in the transverse frames. Physical Review D, 2021, 104 , .	4.7	0
9	Vela pulsar: single pulses analysis with machine learning techniques. Monthly Notices of the Royal Astronomical Society, 2021, 509, 5790-5808.	4.4	1
10	Adapted gauge to a quasilocal measure of the black holes recoil. Physical Review D, 2020, 102, .	4.7	5
11	Exploring the Small Mass Ratio Binary Black Hole Merger via Zeno's Dichotomy Approach. Physical Review Letters, 2020, 125, 191102.	7.8	25
12	Upgraded antennas for pulsar observations in the Argentine Institute of Radio astronomy. Astronomy and Astrophysics, 2020, 633, A84.	5.1	10
13	Third RIT binary black hole simulations catalog. Physical Review D, 2020, 102, .	4.7	32
14	Application of the third RIT binary black hole simulations catalog to parameter estimation of gravitational-wave signals from the LIGO-Virgo O1 and O2 observational runs. Physical Review D, 2020, 102, .	4.7	7
15	Second RIT binary black hole simulations catalog and its application to gravitational waves parameter estimation. Physical Review D, 2019, 100 , .	4.7	50
16	Gravitational wave beacons. Physical Review D, 2019, 99, .	4.7	12
17	Kicking gravitational wave detectors with recoiling black holes. Physical Review D, 2019, 100, .	4.7	19
18	On the properties of the massive binary black hole merger GW170729. Physical Review D, 2019, 100, .	4.7	82

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19	Hangup effect in unequal mass binary black hole mergers and further studies of their gravitational radiation and remnant properties. Physical Review D, 2018, 97, .	4.7	35
20	Evolutions of unequal mass, highly spinning black hole binaries. Physical Review D, 2018, 97, .	4.7	8
21	Puncture initial data for black-hole binaries with high spins and high boosts. Physical Review D, 2017, 95, .	4.7	26
22	Modeling the Black Hole Merger of QSO 3C 186. Astrophysical Journal Letters, 2017, 841, L28.	8.3	11
23	Remnant of binary black-hole mergers: New simulations and peak luminosity studies. Physical Review D, 2017, 95, .	4.7	71
24	Nonspinning binary black hole merger scenario revisited. Physical Review D, 2017, 96, .	4.7	21
25	Evolutions of nearly maximally spinning black hole binaries using the moving puncture approach. Physical Review D, 2017, 96, .	4.7	15
26	The RIT binary black hole simulations catalog. Classical and Quantum Gravity, 2017, 34, 224001.	4.0	67
27	Post-Newtonian quasicircular initial orbits for numerical relativity. Classical and Quantum Gravity, 2017, 34, 145011.	4.0	22
28	Spin flips in generic black hole binaries. Physical Review D, 2016, 93, .	4.7	42
29	Unstable flip-flopping spinning binary black holes. Physical Review D, 2016, 93, .	4.7	27
30	Modeling the source of GW150914 with targeted numerical-relativity simulations. Classical and Quantum Gravity, 2016, 33, 244002.	4.0	67
31	High energy collisions of black holes numerically revisited. Physical Review D, 2016, 94, .	4.7	23
32	Perturbative extraction of gravitational waveforms generated with numerical relativity. Physical Review D, 2015, 91, .	4.7	44
33	Modeling the remnant mass, spin, and recoil from unequal-mass, precessing black-hole binaries: The intermediate mass ratio regime. Physical Review D, 2015, 92, .	4.7	43
34	Flip-Flopping Binary Black Holes. Physical Review Letters, 2015, 114, 141101.	7.8	36
35	Where angular momentum goes in a precessing black-hole binary. Physical Review D, 2014, 89, .	4.7	15
36	Black hole binary remnant mass and spin: A new phenomenological formula. Physical Review D, 2014, 89, .	4.7	40

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37	Remnant mass, spin, and recoil from spin aligned black-hole binaries. Physical Review D, 2014, 90, .	4.7	119
38	Addendum to †The NINJA-2 catalog of hybrid post-Newtonian/numerical-relativity waveforms for non-precessing black-hole binaries'. Classical and Quantum Gravity, 2013, 30, 199401.	4.0	28
39	Error-analysis and comparison to analytical models of numerical waveforms produced by the NRAR Collaboration. Classical and Quantum Gravity, 2013, 31, 025012.	4.0	123
40	Exploring the outer limits of numerical relativity. Physical Review D, 2013, 88, .	4.7	22
41	Nonlinear gravitational recoil from the mergers of precessing black-hole binaries. Physical Review D, 2013, 87, .	4.7	61
42	The NINJA-2 catalog of hybrid post-Newtonian/numerical-relativity waveforms for non-precessing black-hole binaries. Classical and Quantum Gravity, 2012, 29, 124001.	4.0	106
43	Accuracy issues for numerical waveforms. Physical Review D, 2012, 86, .	4.7	29
44	Gravitational recoil from accretion-aligned black-hole binaries. Physical Review D, 2012, 85, .	4.7	126
45	NR/HEP: roadmap for the future. Classical and Quantum Gravity, 2012, 29, 244001.	4.0	50
46	Study of conformally flat initial data for highly spinning black holes and their early evolutions. Physical Review D, 2012, 85, .	4.7	15
47	Orbital Evolution of Extreme-Mass-Ratio Black-Hole Binaries with Numerical Relativity. Physical Review Letters, 2011, 106, 041101.	7.8	89
48	Perturbative effects of spinning black holes in the extreme mass-ratio limit. Classical and Quantum Gravity, 2011, 28, 134005.	4.0	5
49	Seeking for toroidal event horizons from initially stationary BH configurations. Classical and Quantum Gravity, 2011, 28, 145027.	4.0	10
50	Modeling gravitational recoil from black-hole binaries using numerical relativity. Classical and Quantum Gravity, 2011, 28, 114015.	4.0	21
51	Study of multi-black-hole and ring-singularity apparent horizons. Physical Review D, 2011, 84, .	4.7	4
52	Intermediate-mass-ratio black hole binaries. II. Modeling trajectories and gravitational waveforms. Physical Review D, 2011, 84, .	4.7	35
53	Hangup Kicks: Still Larger Recoils by Partial Spin-Orbit Alignment of Black-Hole Binaries. Physical Review Letters, 2011, 107, 231102.	7.8	161
54	Modeling maximum astrophysical gravitational recoil velocities. Physical Review D, 2011, 83, .	4.7	33

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55	Intermediate-Mass-Ratio Black-Hole Binaries: Numerical Relativity Meets Perturbation Theory. Physical Review Letters, 2010, 104, 211101.	7.8	50
56	Remnant masses, spins and recoils from the merger of generic black hole binaries. Classical and Quantum Gravity, 2010, 27, 114006.	4.0	132
57	Advances in simulations of generic black-hole binaries. Classical and Quantum Gravity, 2010, 27, 084034.	4.0	13
58	Intermediate-mass-ratio black hole binaries: Intertwining numerical and perturbative techniques. Physical Review D, 2010, 82, .	4.7	67
59	Statistical studies of spinning black-hole binaries. Physical Review D, 2010, 81, .	4.7	45
60	Regular second-order perturbations of binary black holes in the extreme mass ratio regime. Classical and Quantum Gravity, 2009, 26, 015007.	4.0	10
61	Testing gravitational-wave searches with numerical relativity waveforms: results from the first Numerical INJection Analysis (NINJA) project. Classical and Quantum Gravity, 2009, 26, 165008.	4.0	110
62	Status of NINJA: the Numerical INJection Analysis project. Classical and Quantum Gravity, 2009, 26, 114008.	4.0	39
63	Comparison of numerical and post-Newtonian waveforms for generic precessing black-hole binaries. Physical Review D, 2009, 79, .	4.7	96
64	Algebraic classification of numerical spacetimes and black-hole-binary remnants. Physical Review D, 2009, 79, .	4.7	24
65	Modeling gravitational recoil from precessing highly spinning unequal-mass black-hole binaries. Physical Review D, 2009, 79, .	4.7	76
66	Extra-large remnant recoil velocities and spins from near-extremal-Bowen-York-spin black-hole binaries. Physical Review D, 2008, 78, .	4.7	76
67	Close encounters of three black holes. Physical Review D, 2008, 77, .	4.7	36
68	Further insight into gravitational recoil. Physical Review D, 2008, 77, .	4.7	101
69	Three-body equations of motion in successive post-Newtonian approximations. Classical and Quantum Gravity, 2008, 25, 195019.	4.0	38
70	A new method to integrate $(2+1)$ -wave equations with Dirac's delta functions as sources. Classical and Quantum Gravity, 2008, 25, 145018.	4.0	11
71	Foundations of multiple-black-hole evolutions. Physical Review D, 2008, 77, .	4.7	79
72	Large Merger Recoils and Spin Flips from Generic Black Hole Binaries. Astrophysical Journal, 2007, 659, L5-L8.	4.5	416

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73	Maximum Gravitational Recoil. Physical Review Letters, 2007, 98, 231102.	7.8	371
74	Quasilocal linear momentum in black-hole binaries. Physical Review D, 2007, 76, .	4.7	34
75	Practical formula for the radiated angular momentum. Physical Review D, 2007, 76, .	4.7	54
76	Spin flips and precession in black-hole-binary mergers. Physical Review D, 2007, 75, .	4.7	159
77	Spin-orbit interactions in black-hole binaries. Physical Review D, 2006, 74, .	4.7	105
78	Relativistic three-body effects in black hole coalescence. Physical Review D, 2006, 74, .	4.7	16
79	Last orbit of binary black holes. Physical Review D, 2006, 73, .	4.7	132
80	Spinning-black-hole binaries: The orbital hang-up. Physical Review D, 2006, 74, .	4.7	274
81	Accurate Evolutions of Orbiting Black-Hole Binaries without Excision. Physical Review Letters, 2006, 96, 111101.	7.8	1,068
82	The Lazarus project. II. Spacelike extraction with the quasi-Kinnersley tetrad. Physical Review D, 2006, 73, .	4.7	45
83	Gravitational Radiation from Binary Black Holes: Advances in the Perturbative Approach. Classical and Quantum Gravity, 2005, 22, .	4.0	3
84	Gravitational waves from binary black holes in the extreme mass ratio regime: self-force calculations. Classical and Quantum Gravity, 2005, 22, S369-S374.	4.0	9
85	A time-domain fourth-order-convergent numerical algorithm to integrate black hole perturbations in the extreme-mass-ratio limit. Classical and Quantum Gravity, 2005, 22, S543-S568.	4.0	36
86	Reconstruction of black hole metric perturbations from Weyl curvature: II. The Regge–Wheeler gauge. Classical and Quantum Gravity, 2005, 22, S569-S587.	4.0	19
87	Accurate black hole evolutions by fourth-order numerical relativity. Physical Review D, 2005, 72, .	4.7	148
88	Numerical integration of the Teukolsky equation in the time domain. Physical Review D, 2005, 72, .	4.7	32
89	Perturbations of Schwarzschild black holes in the Lorenz gauge: Formulation and numerical implementation. Physical Review D, 2005, 72, .	4.7	80
90	Radiation content of conformally flat initial data. Physical Review D, 2004, 69, .	4.7	13

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91	Coalescence remnant of spinning binary black holes. Physical Review D, 2004, 69, .	4.7	43
92	Reconstruction of black hole metric perturbations from the Weyl curvature. Physical Review D, 2002, 66, .	4.7	53
93	Modeling gravitational radiation from coalescing binary black holes. Physical Review D, 2002, 65, .	4.7	134
94	New conformally flat initial data for spinning black holes. Physical Review D, 2002, 65, .	4.7	60
95	The Lazarus project: A pragmatic approach to binary black hole evolutions. Physical Review D, 2002, 65,	4.7	129
96	Computing the gravitational self-force on a compact object plunging into a Schwarzschild black hole. Physical Review D, 2002, 66, .	4.7	71
97	Towards the solution of the relativistic gravitational radiation reaction problem for binary black holes. Classical and Quantum Gravity, 2001, 18, 3989-3994.	4.0	9
98	Perturbative evolution of nonlinear initial data for binary black holes: Zerilli versus Teukolsky equation. Physical Review D, 2001, 63, .	4.7	9
99	Plunge Waveforms from Inspiralling Binary Black Holes. Physical Review Letters, 2001, 87, 121103.	7.8	84
100	Gravitational waves from black hole collisions via an eclectic approach. Classical and Quantum Gravity, 2000, 17, L149-L156.	4.0	60
101	Nonlinear and perturbative evolution of distorted black holes: Odd-parity modes. Physical Review D, 2000, 62, .	4.7	27
102	Pragmatic Approach to Gravitational Radiation Reaction in Binary Black Holes. Physical Review Letters, 2000, 84, 5251-5254.	7.8	68
103	Second order gauge invariant gravitational perturbations of a Kerr black hole. Physical Review D, 1999, 59, .	4.7	148
104	Imposition of Cauchy data to the Teukolsky equation. III. The rotating case. Physical Review D, 1998, 58, .	4.7	19
105	Imposition of Cauchy data to the Teukolsky equation. II. Numerical comparison with the Zerilli-Moncrief approach to black hole perturbations. Physical Review D, 1998, 58, .	4.7	14
106	Improved initial data for black hole collisions. Physical Review D, 1998, 57, 1073-1083.	4.7	22
107	Imposition of Cauchy data to the Teukolsky equation. I. The nonrotating case. Physical Review D, 1998, 58, .	4.7	19
108	Head-on collisions of black holes: The particle limit. Physical Review D, 1997, 55, 2124-2138.	4.7	70

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109	Understanding initial data for black hole collisions. Physical Review D, 1997, 56, 6439-6457.	4.7	65
110	Regularization of the Teukolsky equation for rotating black holes. Physical Review D, 1997, 56, 6363-6369.	4.7	7
111	Exact gravitational shock wave solution of higher order theories. Physical Review D, 1996, 54, 3854-3860.	4.7	11
112	Effective two-dimensional description from critical phenomena in black holes. General Relativity and Gravitation, 1995, 27, 121-127.	2.0	10
113	Entanglement entropy in curved spacetimes with event horizons. Physical Review D, 1995, 52, 4512-4517.	4.7	48
114	Emergence of an effective two-dimensional quantum description from the study of critical phenomena in black holes. Physical Review D, 1995, 51, 1733-1740.	4.7	68
115	Perturbative metric of charged black holes in quadratic gravity. Physical Review D, 1995, 51, 6810-6815.	4.7	8
116	GUT's in curved spacetime: Running gravitational constants, Newtonian potential, and the quantum-corrected gravitational equations. Physical Review D, 1995, 52, 2202-2213.	4.7	25
117	Recovery of information from black hole radiation by considering stimulated emission. Physical Review D, 1994, 49, 1922-1928.	4.7	9
118	Charged black holes in quadratic theories. Physical Review D, 1994, 49, 5278-5285.	4.7	13
119	Perturbative method to solve fourth-order gravity field equations. Physical Review D, 1994, 49, 5188-5193.	4.7	27
120	Quantization of the Metric Created by Ultrarelativistic Particles. , 1994, , 193-199.		0
121	Critical Phenomena in Black Holes and the Emergence of a Two Dimensional Quantum Description. , 1994, , 183-192.		0
122	Topological defects in gravitational theories with nonlinear Lagrangians. Physical Review D, 1993, 47, 3303-3311.	4.7	11
123	On Brans-Dicke Black Holes. , 1993, , 123-130.		1
124	Curved-spacetime metric generated by Planckian energy string collisions. Physical Review D, 1992, 46, 4520-4525.	4.7	12
125	Classical and quantum scattering from global monopoles. Classical and Quantum Gravity, 1992, 9, 2417-2427.	4.0	2
126	Vacuum-polarization effects in global monopole space-times. Physical Review D, 1991, 43, 468-475.	4.7	49

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127	PARTICLE PRODUCTION BY THE FORMATION OF A GLOBAL MONOPOLE. International Journal of Modern Physics A, 1991, 06, 3613-3623.	1.5	8
128	Repulsive gravitational effects of global monopoles. Physical Review D, 1990, 42, 2626-2631.	4.7	142
129	Maximum mass of a Neutron star in metric theories of gravitation. General Relativity and Gravitation, 1987, 19, 637-642.	2.0	O
130	On neutron stars and gravitation. Societa Italiana Di Fisica Nuovo Cimento B-General Physics, Relativity Astronomy and Mathematical Physics and Methods, 1987, 99, 123-132.	0.2	1
131	A comment on spiral motions in projective relativity. General Relativity and Gravitation, 1985, 17, 875-878.	2.0	0