Yosef Zlochower

List of Publications by Year
in descending order

78 papers	10,094 citations	76326 40 h-index	62596 80 g-index
80 all docs	80 docs citations	80 times ranked	7578 citing authors

#	Article	IF	Citations
1	GW170817: Measurements of Neutron Star Radii and Equation of State. Physical Review Letters, 2018, 121, 161101.	7.8	1,473
2	Tests of General Relativity with GW150914. Physical Review Letters, 2016, 116, 221101.	7.8	1,224
3	Accurate Evolutions of Orbiting Black-Hole Binaries without Excision. Physical Review Letters, 2006, 96, 111101.	7.8	1,068
4	Properties of the Binary Black Hole Merger GW150914. Physical Review Letters, 2016, 116, 241102.	7.8	673
5	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
6	Observation of Gravitational Waves from Two Neutron Star–Black Hole Coalescences. Astrophysical Journal Letters, 2021, 915, L5.	8.3	453
7	Large Merger Recoils and Spin Flips from Generic Black Hole Binaries. Astrophysical Journal, 2007, 659, L5-L8.	4.5	416
8	Properties and Astrophysical Implications of the 150 $M_\odot$ Binary Black Hole Merger GW190521. Astrophysical Journal Letters, 2020, 900, L13.	8.3	406
9	Maximum Gravitational Recoil. Physical Review Letters, 2007, 98, 231102.	7.8	371
10	Hangup Kicks: Still Larger Recoils by Partial Spin-Orbit Alignment of Black-Hole Binaries. Physical Review Letters, 2011, 107, 231102.	7.8	161
11	Spin flips and precession in black-hole-binary mergers. Physical Review D, 2007, 75, .	4.7	159
12	CIRCUMBINARY MAGNETOHYDRODYNAMIC ACCRETION INTO INSPIRALING BINARY BLACK HOLES. Astrophysical Journal, 2012, 755, 51.	4.5	147
13	Comparisons of binary black hole merger waveforms. Classical and Quantum Gravity, 2007, 24, S25-S31.	4.0	132
14	Remnant masses, spins and recoils from the merger of generic black hole binaries. Classical and Quantum Gravity, 2010, 27, 114006.	4.0	132
15	Gravitational recoil from accretion-aligned black-hole binaries. Physical Review D, 2012, 85, .	4.7	126
16	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
17	Remnant mass, spin, and recoil from spin aligned black-hole binaries. Physical Review D, 2014, 90, .	4.7	119
18	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

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19	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
20	Further insight into gravitational recoil. Physical Review D, 2008, 77, .	4.7	101
21	Comparison of numerical and post-Newtonian waveforms for generic precessing black-hole binaries. Physical Review D, 2009, 79, .	4.7	96
22	Orbital Evolution of Extreme-Mass-Ratio Black-Hole Binaries with Numerical Relativity. Physical Review Letters, 2011, 106, 041101.	7.8	89
23	On the properties of the massive binary black hole merger GW170729. Physical Review D, 2019, 100, .	4.7	82
24	Foundations of multiple-black-hole evolutions. Physical Review D, 2008, 77, .	4.7	79
25	Extra-large remnant recoil velocities and spins from near-extremal-Bowen-York-spin black-hole binaries. Physical Review D, 2008, 78, .	4.7	76
26	Modeling gravitational recoil from precessing highly spinning unequal-mass black-hole binaries. Physical Review D, 2009, 79, .	4.7	76
27	Intermediate-mass-ratio black hole binaries: Intertwining numerical and perturbative techniques. Physical Review D, 2010, 82, .	4.7	67
28	Modeling the source of GW150914 with targeted numerical-relativity simulations. Classical and Quantum Gravity, 2016, 33, 244002.	4.0	67
29	The RIT binary black hole simulations catalog. Classical and Quantum Gravity, 2017, 34, 224001.	4.0	67
30	Nonlinear gravitational recoil from the mergers of precessing black-hole binaries. Physical Review D, 2013, 87, .	4.7	61
31	Numerical relativity of compact binaries in the 21st century. Reports on Progress in Physics, 2019, 82, 016902.	20.1	56
32	Mode coupling in the nonlinear response of black holes. Physical Review D, 2003, 68, .	4.7	55
33	Practical formula for the radiated angular momentum. Physical Review D, 2007, 76, .	4.7	54
34	Intermediate-Mass-Ratio Black-Hole Binaries: Numerical Relativity Meets Perturbation Theory. Physical Review Letters, 2010, 104, 211101.	7.8	50
35	Second RIT binary black hole simulations catalog and its application to gravitational waves parameter estimation. Physical Review D, 2019, 100, .	4.7	50
36	Statistical studies of spinning black-hole binaries. Physical Review D, 2010, 81, .	4.7	45

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37	Perturbative extraction of gravitational waveforms generated with numerical relativity. Physical Review D, 2015, 91, .	4.7	44
38	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
39	The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations. Classical and Quantum Gravity, 2014, 31, 115004.	4.0	42
40	Black hole binary remnant mass and spin: A new phenomenological formula. Physical Review D, 2014, 89, .	4.7	40
41	Implementation of standard testbeds for numerical relativity. Classical and Quantum Gravity, 2008, 25, 125012.	4.0	39
42	Status of NINJA: the Numerical INJection Analysis project. Classical and Quantum Gravity, 2009, 26, 114008.	4.0	39
43	Gravitational wave extraction based on Cauchyâ€"characteristic extraction and characteristic evolution. Classical and Quantum Gravity, 2005, 22, 5089-5107.	4.0	38
44	Close encounters of three black holes. Physical Review D, 2008, 77, .	4.7	36
45	Intermediate-mass-ratio black hole binaries. II. Modeling trajectories and gravitational waveforms. Physical Review D, 2011, 84, .	4.7	35
46	Quasilocal linear momentum in black-hole binaries. Physical Review D, 2007, 76, .	4.7	34
47	Modeling maximum astrophysical gravitational recoil velocities. Physical Review D, 2011, 83, .	4.7	33
48	Accuracy issues for numerical waveforms. Physical Review D, 2012, 86, .	4.7	29
49	Addendum to â€˜The NINJA-2 catalog of hybrid post-Newtonian/numerical-relativity waveforms for non-precessing black-hole binariesâ€™. Classical and Quantum Gravity, 2013, 30, 199401.	4.0	28
50	Puncture initial data for black-hole binaries with high spins and high boosts. Physical Review D, 2017, 95, .	4.7	26
51	Approximate black hole binary spacetime via asymptotic matching. Physical Review D, 2014, 89, .	4.7	25
52	Algebraic classification of numerical spacetimes and black-hole-binary remnants. Physical Review D, 2009, 79, .	4.7	24
53	High energy collisions of black holes numerically revisited. Physical Review D, 2016, 94, .	4.7	23
54	Retarded radiation from colliding black holes in the close limit. Physical Review D, 2002, 65, .	4.7	22

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55	Exploring the outer limits of numerical relativity. Physical Review D, 2013, 88, .	4.7	22
56	Post-Newtonian quasicircular initial orbits for numerical relativity. Classical and Quantum Gravity, 2017, 34, 145011.	4.0	22
57	Modeling gravitational recoil from black-hole binaries using numerical relativity. Classical and Quantum Gravity, 2011, 28, 114015.	4.0	21
58	Nonspinning binary black hole merger scenario revisited. Physical Review D, 2017, 96, .	4.7	21
59	Binary black hole waveform extraction at null infinity. Classical and Quantum Gravity, 2011, 28, 134006.	4.0	20
60	Resolving the relative influence of strong field spacetime dynamics and MHD on circumbinary disk physics. Physical Review D, 2015, 91, .	4.7	20
61	Close limit from a null point of view: The advanced solution. Physical Review D, 2001, 63, .	4.7	19
62	Numerical relativity in spherical coordinates: A new dynamical spacetime and general relativistic MHD evolution framework for the Einstein Toolkit. Physical Review D, 2020, 101, .	4.7	19
63	Mass-ratio and Magnetic Flux Dependence of Modulated Accretion from Circumbinary Disks. Astrophysical Journal, 2021, 922, 175.	4.5	19
64	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
65	Post-Newtonian initial data with waves: progress in evolution. Classical and Quantum Gravity, 2010, 27, 114005.	4.0	16
66	Study of conformally flat initial data for highly spinning black holes and their early evolutions. Physical Review D, 2012, 85, .	4.7	15
67	Where angular momentum goes in a precessing black-hole binary. Physical Review D, 2014, 89, .	4.7	15
68	Evolutions of nearly maximally spinning black hole binaries using the moving puncture approach. Physical Review D, 2017, 96, .	4.7	15
69	Numerical relativity in spherical coordinates with the Einstein Toolkit. Physical Review D, 2018, 97, .	4.7	15
70	Hybrid black-hole binary initial data. Classical and Quantum Gravity, 2011, 28, 134003.	4.0	14
71	Advances in simulations of generic black-hole binaries. Classical and Quantum Gravity, 2010, 27, 084034.	4.0	13
72	Modeling the Black Hole Merger of QSO 3C 186. Astrophysical Journal Letters, 2017, 841, L28.	8.3	11

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73	Seeking for toroidal event horizons from initially stationary BH configurations. Classical and Quantum Gravity, 2011, 28, 145027.	4.0	10
74	Evolutions of unequal mass, highly spinning black hole binaries. Physical Review D, 2018, 97, .	4.7	8
75	Perturbative effects of spinning black holes in the extreme mass-ratio limit. Classical and Quantum Gravity, 2011, 28, 134005.	4.0	5
76	Hybrid waveforms for generic precessing binaries for gravitational-wave data analysis. Physical Review D, 2020, 102, .	4.7	4
77	Inspiraling black-hole binary spacetimes: Challenges in transitioning from analytical to numerical techniques. Physical Review D, 2016, 93, .	4.7	2
78	Comparing an analytical spacetime metric for a merging binary to a fully nonlinear numerical evolution using curvature scalars. Physical Review D, 2018, 97, .	4.7	2