FranÃ§ois Foucart

List of Publications by Year
in descending order

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71	4,406	71102 41	102487 66
papers	citations	h-index	g-index

72	72	72	3536
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Long-term GRMHD simulations of neutron star merger accretion discs: implications for electromagnetic counterparts. Monthly Notices of the Royal Astronomical Society, 2019, 482, 3373-3393.	4.4	207
2	Effects of Neutron-Star Dynamic Tides on Gravitational Waveforms within the Effective-One-Body Approach. Physical Review Letters, 2016, 116, 181101.	7.8	204
3	Black-holeâ€“neutron-star mergers: Disk mass predictions. Physical Review D, 2012, 86, .	4.7	190
4	Evolution of spin direction of accreting magnetic protostars and spin-orbit misalignment in exoplanetary systems. Monthly Notices of the Royal Astronomical Society, 2011, 412, 2790-2798.	4.4	158
5	Low mass binary neutron star mergers: Gravitational waves and neutrino emission. Physical Review D, 2016, 93, .	4.7	157
6	Signatures of hypermassive neutron star lifetimes on r-process nucleosynthesis in the disc ejecta from neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2017, 472, 904-918.	4.4	152
7	Remnant baryon mass in neutron star-black hole mergers: Predictions for binary neutron star mimickers and rapidly spinning black holes. Physical Review D, 2018, 98, .	4.7	146
8	Black-holeâ€“neutron-star mergers at realistic mass ratios: Equation of state and spin orientation effects. Physical Review D, 2013, 87, .	4.7	134
9	Evolving black hole-neutron star binaries in general relativity using pseudospectral and finite difference methods. Physical Review D, 2008, 78, .	4.7	133
10	Neutron star-black hole mergers with a nuclear equation of state and neutrino cooling: Dependence in the binary parameters. Physical Review D, 2014, 90, .	4.7	132
11	Post-merger evolution of a neutron star-black hole binary with neutrino transport. Physical Review D, 2015, 91, .	4.7	124
12	Impact of an improved neutrino energy estimate on outflows in neutron star merger simulations. Physical Review D, 2016, 94, .	4.7	113
13	Black hole-neutron star mergers: Effects of the orientation of the black hole spin. Physical Review D, 2011, 83, .	4.7	103
14	The role of magnetic field geometry in the evolution of neutron star merger accretion discs. Monthly Notices of the Royal Astronomical Society, 2019, 490, 4811-4825.	4.4	102
15	Estimates for disk and ejecta masses produced in compact binary mergers. Physical Review D, 2020, 101, .	4.7	88
16	BLACK HOLE-NEUTRON STAR MERGERS WITH A HOT NUCLEAR EQUATION OF STATE: OUTFLOW AND NEUTRINO-COOLED DISK FOR A LOW-MASS, HIGH-SPIN CASE. Astrophysical Journal, 2013, 776, 47.	4.5	83
17	Dynamics, nucleosynthesis, and kilonova signature of black holeâ€”neutron star merger ejecta. Classical and Quantum Gravity, 2017, 34, 154001.	4.0	82
18	Initial data for black holeâ€“neutron star binaries: A flexible, high-accuracy spectral method. Physical Review D, 2008, 77, .	4.7	77

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19	SpECTRE: A task-based discontinuous Galerkin code for relativistic astrophysics. Journal of Computational Physics, 2017, 335, 84-114.	3.8	77
20	Equation of state effects in black holeâ€“neutron star mergers. Classical and Quantum Gravity, 2010, 27, 114106.	4.0	76
21	Evolution of spin direction of accreting magnetic protostars and spin-orbit misalignment in exoplanetary systems - II. Warped discs. Monthly Notices of the Royal Astronomical Society, 2011, 412, 2799-2815.	4.4	74
22	GROWTH on S190814bv: Deep Synoptic Limits on the Optical/Near-infrared Counterpart to a Neutron Starâ€“Black Hole Merger. Astrophysical Journal, 2020, 890, 131.	4.5	74
23	Implications of the search for optical counterparts during the first six months of the Advanced LIGOâ€™s and Advanced Virgoâ€™s third observing run: possible limits on the ejecta mass and binary properties. Monthly Notices of the Royal Astronomical Society, 2020, 492, 863-876.	4.4	71
24	Optical follow-up of the neutron starâ€“black hole mergers S200105ae and S200115j. Nature Astronomy, 2021, 5, 46-53.	10.1	71
25	Massive disc formation in the tidal disruption of a neutron star by a nearly extremal black hole. Classical and Quantum Gravity, 2013, 30, 135004.	4.0	66
26	Evolution of linear warps in accretion discs and applications to protoplanetary discs in binaries. Monthly Notices of the Royal Astronomical Society, 2014, 445, 1731-1744.	4.4	66
27	ASSEMBLY OF PROTOPLANETARY DISKS AND INCLINATIONS OF CIRCUMBINARY PLANETS. Astrophysical Journal, 2013, 764, 106.	4.5	64
28	The influence of neutrinos on r-process nucleosynthesis in the ejecta of black holeâ€“neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2017, 464, 3907-3919.	4.4	64
29	Dynamical ejecta from precessing neutron star-black hole mergers with a hot, nuclear-theory based equation of state. Classical and Quantum Gravity, 2017, 34, 044002.	4.0	62
30	Black hole-neutron star mergers for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>10</mml:mn><mml:mtext>â€‰</mml:mtext><mml:mtext>â€‰</mml:mtext><mml:msub><mml:mi>M</m holes. Physical Review D, 2012, 85, .	4.7	57
31	First direct comparison of nondisrupting neutron star-black hole and binary black hole merger simulations. Physical Review D, 2013, 88, .	4.7	56
32	Data-driven Expectations for Electromagnetic Counterpart Searches Based on LIGO/Virgo Public Alerts. Astrophysical Journal, 2022, 924, 54.	4.5	56
33	Distinguishing the nature of comparable-mass neutron star binary systems with multimessenger observations: GW170817 case study. Physical Review D, 2019, 100, .	4.7	54
34	Numerical simulations of neutron star-black hole binaries in the near-equal-mass regime. Physical Review D, 2019, 99, .	4.7	53
35	Aligned-spin neutron-starâ€“black-hole waveform model based on the effective-one-body approach and numerical-relativity simulations. Physical Review D, 2020, 102, .	4.7	51
36	The landscape of disc outflows from black holeâ€“neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2020, 497, 3221-3233.	4.4	51

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37	Monte-Carlo Neutrino Transport in Neutron Star Merger Simulations. Astrophysical Journal Letters, 2020, 902, L27.	8.3	50
38	Evaluating radiation transport errors in merger simulations using a MonteÂCarlo algorithm. Physical Review D, 2018, 98, .	4.7	48
39	Evolution of accretion discs around a kerr black hole using extended magnetohydrodynamics. Monthly Notices of the Royal Astronomical Society, 2016, 456, 1332-1345.	4.4	46
40	AN EXTENDED MAGNETOHYDRODYNAMICS MODEL FOR RELATIVISTIC WEAKLY COLLISIONAL PLASMAS. Astrophysical Journal, 2015, 810, 162.	4.5	43
41	Binary neutron stars with arbitrary spins in numerical relativity. Physical Review D, 2015, 92, .	4.7	41
42	Monte Carlo closure for moment-based transport schemes in general relativistic radiation hydrodynamic simulations. Monthly Notices of the Royal Astronomical Society, 2018, 475, 4186-4207.	4.4	41
43	Gravitational waveforms from spectral Einstein code simulations: Neutron star-neutron star and low-mass black hole-neutron star binaries. Physical Review D, 2019, 99, .	4.7	41
44	Simulations of inspiraling and merging double neutron stars using the Spectral Einstein Code. Physical Review D, 2016, 93, .	4.7	39
45	Implications of the search for optical counterparts during the second part of the Advanced LIGOâ€™s and Advanced Virgoâ€™s third observing run: lessons learned for future follow-up observations. Monthly Notices of the Royal Astronomical Society, 2020, 497, 1181-1196.	4.4	39
46	How important is non-ideal physics in simulations of sub-Eddington accretion on to spinning black holes?. Monthly Notices of the Royal Astronomical Society, 2017, 470, 2240-2252.	4.4	38
47	Unequal mass binary neutron star simulations with neutrino transport: Ejecta and neutrino emission. Physical Review D, 2020, 101, .	4.7	38
48	Imprints of r-process heating on fall-back accretion: distinguishing black holeâ€“neutron star from double neutron star mergers. Monthly Notices of the Royal Astronomical Society, 2019, 485, 4404-4412.	4.4	35
49	A Brief Overview of Black Hole-Neutron Star Mergers. Frontiers in Astronomy and Space Sciences, 2020, 7, .	2.8	35
50	Spin effects on neutron star fundamental-mode dynamical tides: Phenomenology and comparison to numerical simulations. Physical Review Research, 2021, 3, .	3.6	35
51	The Challenges Ahead for Multimessenger Analyses of Gravitational Waves and Kilonova: A Case Study on GW190425. Astrophysical Journal, 2021, 922, 269.	4.5	35
52	Magnetic effects on the low-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>T</mml:mi><mml:mo>/</mml:mo><mml:mo stretchy="false">|</mml:mo><mml:mi>W</mml:mi><mml:mo stretchy="false">|</mml:mo></mml:mrow></mml:math>instability in differentially rotating neutron stars. Physical Review D, 2014, 90, .	4.7	28
53	Improvements to the construction of binary black hole initial data. Classical and Quantum Gravity, 2015, 32, 245010.	4.0	28
54	Evolution of the magnetized, neutrino-cooled accretion disk in the aftermath of a black hole-neutron star binary merger. Physical Review D, 2018, 97, .	4.7	27

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55	Black hole-neutron star mergers using a survey of finite-temperature equations of state. Physical Review D, 2018, 98, .	4.7	22
56	grim: A Flexible, Conservative Scheme for Relativistic Fluid Theories. Astrophysical Journal, 2017, 837, 92.	4.5	19
57	Electromagnetic Signatures from the Tidal Tail of a Black Holeâ€"Neutron Star Merger. Astrophysical Journal, 2021, 915, 69.	4.5	19
58	Estimating outflow masses and velocities in merger simulations: Impact of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>r</mml:mi></mml:math> -process heating and neutrino cooling. Physical Review D, 2021, 104, .	4.7	19
59	Implementation of Monte Carlo Transport in the General Relativistic SpEC Code. Astrophysical Journal, 2021, 920, 82.	4.5	16
60	Heating of accretion-disk coronae and jets by general relativistic magnetohydrodynamic turbulence. Journal of Plasma Physics, 2018, 84, .	2.1	12
61	Statistical and systematic uncertainties in extracting the source properties of neutron star-black hole binaries with gravitational waves. Physical Review D, 2021, 103, .	4.7	12
62	Initial data for black holeâ€"neutron star binaries, with rotating stars. Classical and Quantum Gravity, 2016, 33, 225012.	4.0	10
63	Smooth equations of state for high-accuracy simulations of neutron star binaries. Physical Review D, 2019, 100, .	4.7	10
64	Comparison of momentum transport models for numerical relativity. Physical Review D, 2020, 102, .	4.7	10
65	High-accuracy waveforms for black hole-neutron star systems with spinning black holes. Physical Review D, 2021, 103, .	4.7	10
66	The Relative Contribution to Heavy Metals Production from Binary Neutron Star Mergers and Neutron Starâ€"Black Hole Mergers. Astrophysical Journal Letters, 2021, 920, L3.	8.3	10
67	Systematic effects from black hole-neutron star waveform model uncertainties on the neutron star equation of state. Physical Review D, 2019, 99, .	4.7	8
68	Elastic scattering in general relativistic ray tracing for neutrinos. Physical Review D, 2018, 98, .	4.7	7
69	Initial data for high-compactness black holeâ€"neutron star binaries. Classical and Quantum Gravity, 2016, 33, 105009.	4.0	5
70	Axisymmetric hydrodynamics in numerical relativity using a multipatch method. Classical and Quantum Gravity, 2020, 37, 235010.	4.0	2
71	Black Hole-Neutron Star Mergers. , 2022, , 611-660.		0