Michael PÃ¼rrer

List of Publications by Year
in descending order

30 papers	5,382 citations	201674 27 h-index	454955 30 g-index
30 all docs	30 docs citations	30 times ranked	3654 citing authors

#	Article	IF	Citations
1	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	26.7	808
2	Frequency-domain gravitational waves from nonprecessing black-hole binaries. II. A phenomenological model for the advanced detector era. Physical Review D, 2016, 93, .	4.7	701
3	Frequency-domain gravitational waves from nonprecessing black-hole binaries. I. New numerical waveforms and anatomy of the signal. Physical Review D, 2016, 93, .	4.7	511
4	Simple Model of Complete Precessing Black-Hole-Binary Gravitational Waveforms. Physical Review Letters, 2014, 113, 151101.	7.8	498
5	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
6	Improved effective-one-body model of spinning, nonprecessing binary black holes for the era of gravitational-wave astrophysics with advanced detectors. Physical Review D, 2017, 95, .	4.7	401
7	Bayesian inference for compact binary coalescences with <scp>bilby</scp>: validation and application to the first LIGOâ€"Virgo gravitational-wave transient catalogue. Monthly Notices of the Royal Astronomical Society, 2020, 499, 3295-3319.	4.4	213
8	Multipolar effective-one-body waveforms for precessing binary black holes: Construction and validation. Physical Review D, 2020, 102, .	4.7	182
9	Frequency-domain reduced order models for gravitational waves from aligned-spin compact binaries. Classical and Quantum Gravity, 2014, 31, 195010.	4.0	149
10	Matter imprints in waveform models for neutron star binaries: Tidal and self-spin effects. Physical Review D, 2019, 99, .	4.7	144
11	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
12	Frequency domain reduced order model of aligned-spin effective-one-body waveforms with generic mass ratios and spins. Physical Review D, 2016, 93, .	4.7	125
13	Hierarchical data-driven approach to fitting numerical relativity data for nonprecessing binary black holes with an application to final spin and radiated energy. Physical Review D, 2017, 95, .	4.7	123
14	Fast and accurate inference on gravitational waves from precessing compact binaries. Physical Review D, 2016, 94, .	4.7	116
15	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
16	Gravitational waveform accuracy requirements for future ground-based detectors. Physical Review Research, 2020, 2, .	3.6	81
17	Gravitational-wave observations of binary black holes: Effect of nonquadrupole modes. Physical Review D, 2014, 90, .	4.7	80
18	Can we measure individual black-hole spins from gravitational-wave observations?. Physical Review D, 2016, 93, .	4.7	71

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19	Impact of gravitational radiation higher order modes on single aligned-spin gravitational wave searches for binary black holes. Physical Review D, 2016, 93, .	4.7	66
20	Frequency-domain reduced-order model of aligned-spin effective-one-body waveforms with higher-order modes. Physical Review D, 2020, 101, .	4.7	66
21	Surrogate model for an aligned-spin effective-one-body waveform model of binary neutron star inspirals using Gaussian process regression. Physical Review D, 2019, 100, .	4.7	57
22	Aligned-spin neutron-star–black-hole waveform model based on the effective-one-body approach and numerical-relativity simulations. Physical Review D, 2020, 102, .	4.7	51
23	Statistical gravitational waveform models: What to simulate next?. Physical Review D, 2017, 96, .	4.7	40
24	Measuring Intermediate-Mass Black-Hole Binaries with Advanced Gravitational Wave Detectors. Physical Review Letters, 2015, 115, 141101.	7.8	39
25	Testing the validity of the single-spin approximation in inspiral-merger-ringdown waveforms. Physical Review D, 2013, 88, .	4.7	33
26	An efficient iterative method to reduce eccentricity in numerical-relativity simulations of compact binary inspiral. Physical Review D, 2012, 85, .	4.7	31
27	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
28	Regression methods in waveform modeling: a comparative study. Classical and Quantum Gravity, 2020, 37, 075012.	4.0	26
29	Measuring neutron star tidal deformability with Advanced LIGO: A Bayesian analysis of neutron star-black hole binary observations. Physical Review D, 2017, 95, .	4.7	25
30	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	6.6	20