Mark Hannam

List of Publications by Year
in descending order

32 papers	3,710 citations	218677 26 h-index	454955 30 g-index
32 all docs	32 docs citations	32 times ranked	2231 citing authors

#	Article	IF	Citations
1	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
2	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
3	Simple Model of Complete Precessing Black-Hole-Binary Gravitational Waveforms. Physical Review Letters, 2014, 113, 151101.	7.8	498
4	Towards models of gravitational waveforms from generic binaries: II. Modelling precession effects with a single effective precession parameter. Physical Review D, 2015, 91, .	4.7	250
5	Time-domain effective-one-body gravitational waveforms for coalescing compact binaries with nonprecessing spins, tides, and self-spin effects. Physical Review D, 2018, 98, .	4.7	168
6	First Higher-Multipole Model of Gravitational Waves from Spinning and Coalescing Black-Hole Binaries. Physical Review Letters, 2018, 120, 161102.	7.8	161
7	Towards models of gravitational waveforms from generic binaries: A simple approximate mapping between precessing and nonprecessing inspiral signals. Physical Review D, 2012, 86, .	4.7	150
8	Phenomenological model for the gravitational-wave signal from precessing binary black holes with two-spin effects. Physical Review D, 2019, 100, .	4.7	136
9	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
10	Including higher order multipoles in gravitational-wave models for precessing binary black holes. Physical Review D, 2020, 101, .	4.7	122
11	Degeneracy between mass and spin in black-hole-binary waveforms. Physical Review D, 2013, 87, .	4.7	118
12	Tracking the precession of compact binaries from their gravitational-wave signal. Physical Review D, 2011, 84, .	4.7	109
13	Black-hole hair loss: Learning about binary progenitors from ringdown signals. Physical Review D, 2012, 85, .	4.7	104
14	Can we measure individual black-hole spins from gravitational-wave observations?. Physical Review D, 2016, 93, .	4.7	71
15	Modeling the gravitational wave signature of neutron star black hole coalescences. Physical Review D, 2020, 101, .	4.7	61
16	Relevance of tidal effects and post-merger dynamics for binary neutron star parameter estimation. Physical Review D, 2018, 98, .	4.7	46
17	Constraining Black Hole Spins with Gravitational-wave Observations. Astrophysical Journal, 2018, 868, 140.	4.5	45
18	Reliability of complete gravitational waveform models for compact binary coalescences. Physical Review D, 2011, 84, .	4.7	43

#	Article	IF	Citations
19	Two-harmonic approximation for gravitational waveforms from precessing binaries. Physical Review D, 2020, 102, .	4.7	34
20	Testing the validity of the single-spin approximation in inspiral-merger-ringdown waveforms. Physical Review D, 2013, 88, .	4.7	33
21	Parameter estimation with a spinning multimode waveform model. Physical Review D, 2020, 101, .	4.7	33
22	An efficient iterative method to reduce eccentricity in numerical-relativity simulations of compact binary inspiral. Physical Review D, 2012, 85, .	4.7	31
23	Modelling gravitational waves from precessing black-hole binaries: progress, challenges and prospects. General Relativity and Gravitation, 2014, 46, 1.	2.0	30
24	The most powerful astrophysical events: Gravitational-wave peak luminosity of binary black holes as predicted by numerical relativity. Physical Review D, 2017, 96, .	4.7	30
25	When will we observe binary black holes precessing?. Physical Review D, 2020, 102, .	4.7	30
26	Model of gravitational waves from precessing black-hole binaries through merger and ringdown. Physical Review D, 2021, 104, .	4.7	30
27	Identifying when precession can be measured in gravitational waveforms. Physical Review D, 2021, 103, .	4.7	18
28	Understanding How Fast Black Holes Spin by Analyzing Data from the Second Gravitational-wave Catalogue. Astrophysical Journal, 2022, 928, 75.	4.5	14
29	Investigating the effect of in-plane spin directions for precessing binary black hole systems. Physical Review D, 2021, 103, .	4.7	7
30	Trumpet initial data for boosted black holes. Physical Review D, 2018, 98, .	4.7	3
31	Accelerating parameter estimation of gravitational waves from black hole binaries with reduced order quadratures. , 2017, , .		0
32	Can we measure individual black-hole spins from gravitational-wave observations?. , 2017, , .		0