Stephen R Taylor

List of Publications by Year
in descending order

35 papers	2,533 citations	279798 23 h-index	361022 35 g-index
35 all docs	35 docs citations	35 times ranked	2279 citing authors

#	Article	IF	Citations
1	Multimessenger time-domain signatures of supermassive black hole binaries. Monthly Notices of the Royal Astronomical Society, 2022, 510, 5929-5944.	4.4	20
2	A parallelized Bayesian approach to accelerated gravitational-wave background characterization. Physical Review D, 2022, 105, .	4.7	11
3	Gravitational-wave Statistics for Pulsar Timing Arrays: Examining Bias from Using a Finite Number of Pulsars. Astrophysical Journal, 2022, 932, 105.	4.5	7
4	Astrophysics Milestones for Pulsar Timing Array Gravitational-wave Detection. Astrophysical Journal Letters, 2021, 911, L34.	8.3	66
5	The NANOGrav 11 yr Data Set: Limits on Supermassive Black Hole Binaries in Galaxies within 500 Mpc. Astrophysical Journal, 2021, 914, 121.	4.5	21
6	Bayesian forecasts for dark matter substructure searches with mock pulsar timing data. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 025.	5.4	17
7	Mapping the gravitational-wave sky with LISA: a Bayesian spherical harmonic approach. Monthly Notices of the Royal Astronomical Society, 2021, 507, 5451-5462.	4.4	13
8	The NANOGrav 12.5 yr Data Set: Observations and Narrowband Timing of 47 Millisecond Pulsars. Astrophysical Journal, Supplement Series, 2021, 252, 4.	7.7	98
9	The NANOGrav 12.5 yr Data Set: Wideband Timing of 47 Millisecond Pulsars. Astrophysical Journal, Supplement Series, 2021, 252, 5.	7.7	64
10	Discriminating between different scenarios for the formation and evolution of massive black holes with LISA. Physical Review D, 2021, 104, .	4.7	7
11	Searching for Gravitational Waves from Cosmological Phase Transitions with the NANOGrav 12.5-Year Dataset. Physical Review Letters, 2021, 127, 251302.	7.8	62
12	The NANOGrav 12.5-year Data Set: Search for Non-Einsteinian Polarization Modes in the Gravitational-wave Background. Astrophysical Journal Letters, 2021, 923, L22.	8.3	30
13	Pulsar timing array signals induced by black hole binaries in relativistic eccentric orbits. Physical Review D, 2020, 101, .	4.7	14
14	From bright binaries to bumpy backgrounds: Mapping realistic gravitational wave skies with pulsar-timing arrays. Physical Review D, 2020, 102, .	4.7	36
15	Multimessenger Gravitational-wave Searches with Pulsar Timing Arrays: Application to 3C 66B Using the NANOGrav 11-year Data Set. Astrophysical Journal, 2020, 900, 102.	4.5	30
16	Pulsar Timing Array Constraints on the Merger Timescale of Subparsec Supermassive Black Hole Binary Candidates. Astrophysical Journal Letters, 2020, 900, L42.	8.3	7
17	The NANOGrav 12.5Âyr Data Set: Search for an Isotropic Stochastic Gravitational-wave Background. Astrophysical Journal Letters, 2020, 905, L34.	8.3	528
18	The astrophysics of nanohertz gravitational waves. Astronomy and Astrophysics Review, 2019, 27, 1.	25.5	166

#	Article	IF	Citations
19	Constraining alternative polarization states of gravitational waves from individual black hole binaries using pulsar timing arrays. Physical Review D, 2019, 99, .	4.7	11
20	Bayesian cross validation for gravitational-wave searches in pulsar-timing array data. Monthly Notices of the Royal Astronomical Society, 2019, 487, 3644-3649.	4.4	5
21	The NANOGrav 11-year Data Set: High-precision Timing of 45 Millisecond Pulsars. Astrophysical Journal, Supplement Series, 2018, 235, 37.	7.7	448
22	Constraining Alternative Theories of Gravity Using Pulsar Timing Arrays. Physical Review Letters, 2018, 120, 181101.	7.8	30
23	Single sources in the low-frequency gravitational wave sky: properties and time to detection by pulsar timing arrays. Monthly Notices of the Royal Astronomical Society, 2018, 477, 964-976.	4.4	61
24	Noise-marginalized optimal statistic: A robust hybrid frequentist-Bayesian statistic for the stochastic gravitational-wave background in pulsar timing arrays. Physical Review D, 2018, 98, .	4.7	31
25	Mining gravitational-wave catalogs to understand binary stellar evolution: A new hierarchical Bayesian framework. Physical Review D, 2018, 98, .	4.7	64
26	Constraints on the Dynamical Environments of Supermassive Black-Hole Binaries Using Pulsar-Timing Arrays. Physical Review Letters, 2017, 118, 181102.	7.8	42
27	The local nanohertz gravitational-wave landscape from supermassive black hole binaries. Nature Astronomy, 2017, 1, 886-892.	10.1	99
28	The gravitational wave background from massive black hole binaries in Illustris: spectral features and time to detection with pulsar timing arrays. Monthly Notices of the Royal Astronomical Society, 2017, 471, 4508-4526.	4.4	97
29	Phase-coherent mapping of gravitational-wave backgrounds using ground-based laser interferometers. Physical Review D, 2015, 92, .	4.7	25
30	Detection of eccentric supermassive black hole binaries with pulsar timing arrays: Signal-to-noise ratio calculations. Physical Review D, 2015, 92, .	4.7	42
31	Mapping gravitational-wave backgrounds of arbitrary polarisation using pulsar timing arrays. Physical Review D, 2015, 92, .	4.7	34
32	Searching for anisotropic gravitational-wave backgrounds using pulsar timing arrays. Physical Review D, 2013, 88, .	4.7	72
33	Weighing the evidence for a gravitational-wave background in the first International Pulsar Timing Array data challenge. Physical Review D, 2013, 87, .	4.7	15
34	Cosmology with the lights off: Standard sirens in the Einstein Telescope era. Physical Review D, 2012, 86, .	4.7	133
35	Cosmology using advanced gravitational-wave detectors alone. Physical Review D, 2012, 85, .	4.7	127