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	The NANOGrav 12.5Âyr Data Set: Search for an Isotropic Stochastic Gravitational-wave Background. Astrophysical Journal Letters, 2020, 905, L34.	8.3	528
2	The NANOGrav 11-year Data Set: High-precision Timing of 45 Millisecond Pulsars. Astrophysical Journal, Supplement Series, 2018, 235, 37.	7.7	448
3	The astrophysics of nanohertz gravitational waves. Astronomy and Astrophysics Review, 2019, 27, 1.	25.5	166
4	Cosmology with the lights off: Standard sirens in the Einstein Telescope era. Physical Review D, 2012, 86, .	4.7	133
5	Cosmology using advanced gravitational-wave detectors alone. Physical Review D, 2012, 85, .	4.7	127
6	The local nanohertz gravitational-wave landscape from supermassive black hole binaries. Nature Astronomy, 2017, 1, 886-892.	10.1	99
7	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
8	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
9	Searching for anisotropic gravitational-wave backgrounds using pulsar timing arrays. Physical Review D, 2013, 88, .	4.7	72
10	Astrophysics Milestones for Pulsar Timing Array Gravitational-wave Detection. Astrophysical Journal Letters, 2021, 911, L34.	8.3	66
11	Mining gravitational-wave catalogs to understand binary stellar evolution: A new hierarchical Bayesian framework. Physical Review D, 2018, 98, .	4.7	64
12	The NANOGrav 12.5 yr Data Set: Wideband Timing of 47 Millisecond Pulsars. Astrophysical Journal, Supplement Series, 2021, 252, 5.	7.7	64
13	Searching for Gravitational Waves from Cosmological Phase Transitions with the NANOGrav 12.5-Year Dataset. Physical Review Letters, 2021, 127, 251302.	7.8	62
14	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
15	Detection of eccentric supermassive black hole binaries with pulsar timing arrays: Signal-to-noise ratio calculations. Physical Review D, 2015, 92, .	4.7	42
16	Constraints on the Dynamical Environments of Supermassive Black-Hole Binaries Using Pulsar-Timing Arrays. Physical Review Letters, 2017, 118, 181102.	7.8	42
17	From bright binaries to bumpy backgrounds: Mapping realistic gravitational wave skies with pulsar-timing arrays. Physical Review D, 2020, 102, .	4.7	36
18	Mapping gravitational-wave backgrounds of arbitrary polarisation using pulsar timing arrays. Physical Review D, 2015, 92, .	4.7	34

#	Article	IF	Citations
19	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
20	Constraining Alternative Theories of Gravity Using Pulsar Timing Arrays. Physical Review Letters, 2018, 120, 181101.	7.8	30
21	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
22	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
23	Phase-coherent mapping of gravitational-wave backgrounds using ground-based laser interferometers. Physical Review D, 2015, 92, .	4.7	25
24	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
25	Multimessenger time-domain signatures of supermassive black hole binaries. Monthly Notices of the Royal Astronomical Society, 2022, 510, 5929-5944.	4.4	20
26	Bayesian forecasts for dark matter substructure searches with mock pulsar timing data. Journal of Cosmology and Astroparticle Physics, 2021, 2021, 025.	5.4	17
27	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
28	Pulsar timing array signals induced by black hole binaries in relativistic eccentric orbits. Physical Review D, 2020, 101, .	4.7	14
29	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
30	Constraining alternative polarization states of gravitational waves from individual black hole binaries using pulsar timing arrays. Physical Review D, 2019, 99, .	4.7	11
31	A parallelized Bayesian approach to accelerated gravitational-wave background characterization. Physical Review D, 2022, 105, .	4.7	11
32	Pulsar Timing Array Constraints on the Merger Timescale of Subparsec Supermassive Black Hole Binary Candidates. Astrophysical Journal Letters, 2020, 900, L42.	8.3	7
33	Discriminating between different scenarios for the formation and evolution of massive black holes with LISA. Physical Review D, 2021, 104, .	4.7	7
34	Gravitational-wave Statistics for Pulsar Timing Arrays: Examining Bias from Using a Finite Number of Pulsars. Astrophysical Journal, 2022, 932, 105.	4.5	7
35	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