Matthew Evans

List of Publications by Year
in descending order

35 papers	6,961 citations	201385 27 h-index	360668 35 g-index
36 all docs	36 docs citations	36 times ranked	5410 citing authors

#	Article	IF	Citations
1	Advanced LIGO. Classical and Quantum Gravity, 2015, 32, 074001.	1.5	1,929
2	Characterization of the LIGO detectors during their sixth science run. Classical and Quantum Gravity, 2015, 32, 115012.	1.5	1,029
3	Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light. Nature Photonics, 2013, 7, 613-619.	15.6	825
4	Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA. Living Reviews in Relativity, 2018, 21, 3.	8.2	808
5	Quantum-Enhanced Advanced LIGO Detectors in the Era of Gravitational-Wave Astronomy. Physical Review Letters, 2019, 123, 231107.	2.9	359
6	Sensitivity and performance of the Advanced LIGO detectors in the third observing run. Physical Review D, 2020, 102, .	1.6	196
7	Seismic isolation of Advanced LIGO: Review of strategy, instrumentation and performance. Classical and Quantum Gravity, 2015, 32, 185003.	1.5	141
8	Gravitational wave detector with cosmological reach. Physical Review D, 2015, 91, .	1.6	137
9	Prospects for doubling the range of Advanced LIGO. Physical Review D, 2015, 91, .	1.6	126
10	A cryogenic silicon interferometer for gravitational-wave detection. Classical and Quantum Gravity, 2020, 37, 165003.	1.5	120
11	Frequency-Dependent Squeezing for Advanced LIGO. Physical Review Letters, 2020, 124, 171102.	2.9	99
12	Gravitational-wave physics and astronomy in the 2020s and 2030s. Nature Reviews Physics, 2021, 3, 344-366.	11.9	96
13	DC readout experiment in Enhanced LIGO. Classical and Quantum Gravity, 2012, 29, 065005.	1.5	91
14	Design and development of the advanced LIGO monolithic fused silica suspension. Classical and Quantum Gravity, 2012, 29, 035003.	1.5	88
15	Realistic filter cavities for advanced gravitational wave detectors. Physical Review D, 2013, 88, .	1.6	86
16	Audio-Band Frequency-Dependent Squeezing for Gravitational-Wave Detectors. Physical Review Letters, 2016, 116, 041102.	2.9	77
17	Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914. Physical Review D, 2017, 95, .	1.6	72
18	Parameter estimation for binary black holes with networks of third-generation gravitational-wave detectors. Physical Review D, 2017, 95, .	1.6	70

#	Article	IF	Citations
19	Metrics for next-generation gravitational-wave detectors. Classical and Quantum Gravity, 2019, 36, 225002.	1.5	68
20	Decoherence and degradation of squeezed states in quantum filter cavities. Physical Review D, 2014, 90, .	1.6	66
21	Distance measures in gravitational-wave astrophysics and cosmology. Classical and Quantum Gravity, 2021, 38, 055010.	1.5	62
22	Squeezed quadrature fluctuations in a gravitational wave detector using squeezed light. Optics Express, 2013, 21, 19047.	1.7	61
23	Approaching the motional ground state of a 10-kg object. Science, 2021, 372, 1333-1336.	6.0	59
24	Ultra-low phase noise squeezed vacuum source for gravitational wave detectors. Optica, 2016, 3, 682.	4.8	52
25	Measurement of optical response of a detuned resonant sideband extraction gravitational wave detector. Physical Review D, 2006, 74, .	1.6	48
26	Balanced homodyne readout for quantum limited gravitational wave detectors. Optics Express, 2014, 22, 4224.	1.7	37
27	Gravitational-wave physics with Cosmic Explorer: Limits to low-frequency sensitivity. Physical Review D, 2021, 103, .	1.6	37
28	Quantum Limit for Laser Interferometric Gravitational-Wave Detectors from Optical Dissipation. Physical Review X, 2019, 9, .	2.8	21
29	First joint observation by the underground gravitational-wave detector KAGRA with GEO 600. Progress of Theoretical and Experimental Physics, 2022, 2022, .	1.8	20
30	LIGOâ€™s quantum response to squeezed states. Physical Review D, 2021, 104, .	1.6	19
31	Tuning Advanced LIGO to kilohertz signals from neutron-star collisions. Physical Review D, 2021, 103, .	1.6	14
32	Optimal detuning for quantum filter cavities. Physical Review D, 2020, 102, .	1.6	7
33	Demonstration of an amplitude filter cavity at gravitational-wave frequencies. Physical Review D, 2020, 102, .	1.6	5
34	Low phase noise squeezed vacuum for future generation gravitational wave detectors. Classical and Quantum Gravity, 2020, 37, 185014.	1.5	5
35	Probing squeezing for gravitational-wave detectors with an audio-band field. Physical Review D, 2022, 105, .	1.6	3