Edward A Laird

List of Publications by Year
in descending order

35 papers	4,609 citations	331670 21 h-index	377865 34 g-index
37 all docs	37 docs citations	37 times ranked	3707 citing authors

#	Article	IF	Citations
1	Coherent Manipulation of Coupled Electron Spins in Semiconductor Quantum Dots. Science, 2005, 309, 2180-2184.	12.6	2,674
2	Quantum transport in carbon nanotubes. Reviews of Modern Physics, 2015, 87, 703-764.	45.6	292
3	Coherent spin manipulation in an exchange-only qubit. Physical Review B, 2010, 82, .	3.2	203
4	Hyperfine-Mediated Gate-Driven Electron Spin Resonance. Physical Review Letters, 2007, 99, 246601.	7.8	173
5	First results from MAST. Nuclear Fusion, 2001, 41, 1423-1433.	3.5	130
6	A valleyâ€"spin qubit in a carbon nanotube. Nature Nanotechnology, 2013, 8, 565-568.	31.5	119
7	Large spin-orbit coupling in carbon nanotubes. Nature Communications, 2013, 4, 1573.	12.8	109
8	Valleyâ€"spin blockade and spin resonance in carbon nanotubes. Nature Nanotechnology, 2012, 7, 630-634.	31.5	103
9	A High Quality Factor Carbon Nanotube Mechanical Resonator at 39 GHz. Nano Letters, 2012, 12, 193-197.	9.1	101
10	Measurement of Temporal Correlations of the Overhauser Field in a Double Quantum Dot. Physical Review Letters, 2008, 101, 236803.	7.8	95
11	Charge-State Conditional Operation of a Spin Qubit. Physical Review Letters, 2011, 107, 030506.	7.8	79
12	Effect of Exchange Interaction on Spin Dephasing in a Double Quantum Dot. Physical Review Letters, 2006, 97, 056801.	7.8	68
13	A coherent nanomechanical oscillator driven by single-electron tunnelling. Nature Physics, 2020, 16, 75-82.	16.7	55
14	Sensitive Radio-Frequency Measurements of a Quantum Dot by Tuning to Perfect Impedance Matching. Physical Review Applied, 2016, 5, .	3.8	44
15	Machine learning enables completely automatic tuning of a quantum device faster than human experts. Nature Communications, 2020, 11, 4161.	12.8	42
16	Efficiently measuring a quantum device using machine learning. Npj Quantum Information, 2019, 5, .	6.7	39
17	Strong Coupling of Microwave Photons to Antiferromagnetic Fluctuations in an Organic Magnet. Physical Review Letters, 2017, 119, 147701.	7.8	38
18	A new mechanism of electric dipole spin resonance: hyperfine coupling in quantum dots. Semiconductor Science and Technology, 2009, 24, 064004.	2.0	34

#	ARTICLE	IF	CITATIONS
19	Resonant Optomechanics with a Vibrating Carbon Nanotube and a Radio-Frequency Cavity. Physical Review Letters, 2016, 117, 170801.	7.8	32
20	Displacemon Electromechanics: How to Detect Quantum Interference in a Nanomechanical Resonator. Physical Review X, 2018, 8, .	8.9	27
21	Measuring the Thermodynamic Cost of Timekeeping. Physical Review X, 2021, 11, .	8.9	26
22	Spin Resonance Clock Transition of the Endohedral Fullerene <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mrow><mml:mi mathvariant="normal">N</mml:mi></mml:mrow><mml:mprescripts /><mml:none /><mml:mrow><mml:mn>15</mml:mn></mml:mrow></mml:mmultiscripts><mml:mi>@</mml:mi><mml:msub><mml:mrow><mml:mi mathvariant="normal">C</mml:mi></mml:mrow><mml:mrow><mml:mn>60</mml:mn></mml:mrow></mml:msub></mml:mrow></mm	7.8	20
23	Circuit Quantum Electrodynamics with Carbon-Nanotube-Based Superconducting Quantum Circuits. Physical Review Applied, 2021, 15, .	3.8	16
24	Sensitive radiofrequency readout of quantum dots using an ultra-low-noise SQUID amplifier. Journal of Applied Physics, 2020, 127, .	2.5	15
25	Electrically driven spin resonance in a bent disordered carbon nanotube. Physical Review B, 2014, 90, .	3.2	13
26	Photon-assisted tunneling and charge dephasing in a carbon nanotube double quantum dot. Physical Review B, 2016, 93, .	3.2	13
27	Hyperfine and Spin-Orbit Coupling Effects on Decay of Spin-Valley States in a Carbon Nanotube. Physical Review Letters, 2017, 118, 177701.	7.8	11
28	Radio-frequency optomechanical characterization of a silicon nitride drum. Scientific Reports, 2020, 10, 1654.	3.3	10
29	Measuring carbon nanotube vibrations using a single-electron transistor as a fast linear amplifier. Applied Physics Letters, 2018, 113, .	3.3	8
30	Nongalvanic Calibration and Operation of a Quantum Dot Thermometer. Physical Review Applied, 2021, 15, .	3.8	6
31	Preparing, manipulating, and measuring quantum states on a chip. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 35, 251-256.	2.7	5
32	Can the displacemon device test objective collapse models?. AVS Quantum Science, 2021, 3, 045603.	4.9	4
33	Conditioned spin and charge dynamics of a single-electron quantum dot. Physical Review A, 2017, 96, .	2.5	3
34	Keeping perfect time with caged atoms. IEEE Spectrum, 2017, 54, 34-39.	0.7	2
35	Radio-frequency characterization of a supercurrent transistor made of a carbon nanotube. Materials for Quantum Technology, 2021, 1, 035003.	3.1	0