

# William A Coish

## List of Publications by Year in descending order

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Version: 2024-02-01

51  
papers

3,152  
citations

279487

23  
h-index

233125

45  
g-index

53  
all docs

53  
docs citations

53  
times ranked

2651  
citing authors

#	ARTICLE	IF	CITATIONS
1	14-Qubit Entanglement: Creation and Coherence. <i>Physical Review Letters</i> , 2011, 106, 130506.	2.9	853
2	Hyperfine interaction in a quantum dot: Non-Markovian electron spin dynamics. <i>Physical Review B</i> , 2004, 70, .	1.1	401
3	Spin decoherence of a heavy hole coupled to nuclear spins in a quantum dot. <i>Physical Review B</i> , 2008, 78, .	1.1	243
4	Recipes for spin-based quantum computing. <i>Nanotechnology</i> , 2005, 16, R27-R49.	1.3	176
5	Singlet-triplet decoherence due to nuclear spins in a double quantum dot. <i>Physical Review B</i> , 2005, 72, .	1.1	173
6	Nuclear spin state narrowing via gate-controlled Rabi oscillations in a double quantum dot. <i>Physical Review B</i> , 2006, 73, .	1.1	152
7	Nuclear spins in nanostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 2203-2215.	0.7	133
8	Pauli Spin Blockade in a Highly Tunable Silicon Double Quantum Dot. <i>Scientific Reports</i> , 2011, 1, 110.	1.6	86
9	Universal Phase Shift and Nonexponential Decay of Driven Single-Spin Oscillations. <i>Physical Review Letters</i> , 2007, 99, 106803.	2.9	84
10	Molecular states in carbon nanotube double quantum dots. <i>Physical Review B</i> , 2006, 74, .	1.1	75
11	Exponential decay in a spin bath. <i>Physical Review B</i> , 2008, 77, .	1.1	69
12	Free-induction decay and envelope modulations in a narrowed nuclear spin bath. <i>Physical Review B</i> , 2010, 81, .	1.1	63
13	High-Fidelity Single-Shot Readout for a Spin Qubit via an Enhanced Latching Mechanism. <i>Physical Review X</i> , 2018, 8, .	2.8	51
14	Spin interactions, relaxation and decoherence in quantum dots. <i>Solid State Communications</i> , 2009, 149, 1443-1450.	0.9	50
15	Coupling a single electron spin to a microwave resonator: controlling transverse and longitudinal couplings. <i>Nanotechnology</i> , 2016, 27, 464003.	1.3	46
16	Nuclear spin dynamics and Zeno effect in quantum dots and defect centers. <i>Physical Review B</i> , 2008, 78, .	1.1	37
17	Stationary and Transient Leakage Current in the Pauli Spin Blockade. <i>Physical Review Letters</i> , 2009, 102, 176806.	2.9	36
18	Measurement, control, and decay of quantum-dot spins. <i>Physica Status Solidi (B): Basic Research</i> , 2006, 243, 3658-3672.	0.7	34

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19	Exchange-controlled single-electron-spin rotations in quantum dots. <i>Physical Review B</i> , 2007, 75, .	1.1	33
20	Quantum versus classical hyperfine-induced dynamics in a quantum dot. <i>Journal of Applied Physics</i> , 2007, 101, 081715.	1.1	33
21	Leakage-current line shapes from inelastic cotunneling in the Pauli spin blockade regime. <i>Physical Review B</i> , 2011, 84, .	1.1	28
22	Microscopic models for charge-noise-induced dephasing of solid-state qubits. <i>Physical Review B</i> , 2015, 91, .	1.1	26
23	First-principles hyperfine tensors for electrons and holes in GaAs and silicon. <i>Physical Review B</i> , 2020, 101, .	1.1	26
24	Spin-Echo Dynamics of a Heavy Hole in a Quantum Dot. <i>Physical Review Letters</i> , 2012, 109, 237601.	2.9	25
25	Optimal post-processing for a generic single-shot qubit readout. <i>Physical Review A</i> , 2014, 89, .	1.0	22
26	Four-Majorana qubit with charge readout: Dynamics and decoherence. <i>Physical Review B</i> , 2018, 98, .	1.1	22
27	Repetitive Quantum Nondemolition Measurement and Soft Decoding of a Silicon Spin Qubit. <i>Physical Review X</i> , 2020, 10, .	2.8	18
28	Theory of box-model hyperfine couplings and transport signatures of long-range nuclear-spin coherence in a quantum-dot spin valve. <i>Physical Review B</i> , 2015, 91, .	1.1	13
29	Enhanced hyperfine-induced spin dephasing in a magnetic-field gradient. <i>Physical Review B</i> , 2013, 88, .	1.1	12
30	Hamiltonian engineering for robust quantum state transfer and qubit readout in cavity QED. <i>New Journal of Physics</i> , 2017, 19, 023041.	1.2	12
31	Pseudospin-electric coupling for holes beyond the envelope-function approximation. <i>Physical Review B</i> , 2020, 102, .	1.1	12
32	Soft Decoding of a Qubit Readout Apparatus. <i>Physical Review Letters</i> , 2014, 113, 230402.	2.9	10
33	Enhancing qubit readout through dissipative sub-Poissonian dynamics. <i>Physical Review A</i> , 2017, 96, .	1.0	10
34	Entangled photons on demand: Erasing which-path information with sidebands. <i>Physical Review B</i> , 2009, 80, .	1.1	9
35	Tunable skyrmion-skyrmion binding on the surface of a topological insulator. <i>Physical Review B</i> , 2019, 100, .	1.1	9
36	Controlling hole spins in quantum dots and wells. <i>European Physical Journal Plus</i> , 2014, 129, 1.	1.2	8

#	ARTICLE	IF	CITATIONS
37	Magnetoconductance signatures of chiral domain-wall bound states in magnetic topological insulators. Physical Review B, 2017, 96, .	1.1	8
38	Maximizing the purity of a qubit evolving in an anisotropic environment. Physical Review B, 2015, 92, .	1.1	7
39	Quantum-Dot Spin Qubit and Hyperfine Interaction. , 2008, , 17-29.		7
40	F center inBaF2:Diffuse excited state. Physical Review B, 2002, 66, .	1.1	6
41	Hole spin echo envelope modulations. Physical Review B, 2019, 100, .	1.1	6
42	Quasiparticle velocities in two-dimensional electron/hole liquids with spin-orbit coupling. Physical Review B, 2012, 85, .	1.1	5
43	Through locks to narrows. Nature Physics, 2009, 5, 710-711.	6.5	4
44	Topological transition of a non-Markovian dissipative quantum walk. Physical Review A, 2020, 102, .	1.0	4
45	Balancing coherent and dissipative dynamics in a central-spin system. Physical Review B, 2020, 102, .	1.1	4
46	Anomalous magnetotransport through reflection-symmetric artificial molecules. Physical Review B, 2013, 87, .	1.1	3
47	Power spectra and auto correlation analysis of hyperfine-induced long period oscillations in the tunneling current of coupled quantum dots. , 2013, , .		1
48	Electron and Hole Spin Dynamics and Decoherence in Quantum Dots. , 0, , 229-247.		1
49	Non-Markovian Dynamics of a Localized Electron Spin Due to the Hyperfine Interaction. Hyperfine Interactions, 2004, 158, 235-243.	0.2	0
50	Hyperfine-induced hysteretic funnel structure in spin blockaded tunneling current of coupled vertical quantum dots at low magnetic field. , 2013, , .		0
51	Non-Markovian Dynamics of a Localized Electron Spin Due to the Hyperfine Interaction. , 2005, , 235-243.		0