

Jonathan Baugh

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/6845715/jonathan-baugh-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

69

papers

1,514

citations

22

h-index

36

g-index

77

ext. papers

1,795

ext. citations

5.8

avg. IF

4.48

L-index

#	Paper	IF	Citations
69	Charge transport through extended molecular wires with strongly correlated electrons. <i>Chemical Science</i> , 2021 , 12, 11121-11129	9.4	1
68	Graphene nanogaps for the directed assembly of single-nanoparticle devices. <i>Nanoscale</i> , 2021 , 13, 6513-6520	6.520	3
67	Roadmap on quantum nanotechnologies. <i>Nanotechnology</i> , 2021 , 32, 162003	3.4	12
66	Non-adiabatic single-electron pumps in a dopant-free GaAs/AlGaAs 2DEG. <i>Applied Physics Letters</i> , 2021 , 119, 114001	3.4	2
65	Few-electrode design for silicon MOS quantum dots. <i>Semiconductor Science and Technology</i> , 2020 , 35, 015002	1.8	1
64	Self-driven oscillation in Coulomb blockaded suspended carbon nanotubes. <i>Physical Review Research</i> , 2020 , 2,	3.9	3
63	Simulated coherent electron shuttling in silicon quantum dots. <i>Physical Review B</i> , 2020 , 102,	3.3	4
62	Hillock-free and atomically smooth InSb QWs grown on GaAs substrates by MBE. <i>Journal of Crystal Growth</i> , 2019 , 513, 15-19	1.6	2
61	Charge-state assignment of nanoscale single-electron transistors from their current-voltage characteristics. <i>Nanoscale</i> , 2019 , 11, 14820-14827	7.7	8
60	Understanding resonant charge transport through weakly coupled single-molecule junctions. <i>Nature Communications</i> , 2019 , 10, 4628	17.4	23
59	Supercurrent interference in semiconductor nanowire Josephson junctions. <i>Physical Review B</i> , 2019 , 100,	3.3	6
58	Network architecture for a topological quantum computer in silicon. <i>Quantum Science and Technology</i> , 2019 , 4, 025003	5.5	10
57	Efficient continuous-wave noise spectroscopy beyond weak coupling. <i>Physical Review A</i> , 2018 , 98,	2.6	7
56	Gradient-based closed-loop quantum optimal control in a solid-state two-qubit system. <i>Physical Review A</i> , 2018 , 98,	2.6	13
55	Nonequilibrium Green's function study of magnetoconductance features and oscillations in clean and disordered nanowires. <i>Physical Review B</i> , 2018 , 98,	3.3	5
54	Optimization of metamorphic buffers for MBE growth of high quality AlInSb/InSb quantum structures: Suppression of hillock formation. <i>Journal of Crystal Growth</i> , 2017 , 477, 7-11	1.6	7
53	Nb/InAs nanowire proximity junctions from Josephson to quantum dot regimes. <i>Nanotechnology</i> , 2017 , 28, 085202	3.4	13

52	Double quantum dot memristor. <i>Physical Review B</i> , 2017 , 96,	3.3	9
51	Probing the non-linear transient response of a carbon nanotube mechanical oscillator. <i>Applied Physics Letters</i> , 2017 , 111, 223108	3.4	5
50	Enhancing quantum control by bootstrapping a quantum processor of 12 qubits. <i>Npj Quantum Information</i> , 2017 , 3,	8.6	49
49	Tomography is Necessary for Universal Entanglement Detection with Single-Copy Observables. <i>Physical Review Letters</i> , 2016 , 116, 230501	7.4	30
48	Heat Bath Algorithmic Cooling with Spins: Review and Prospects. <i>Biological Magnetic Resonance</i> , 2016 , 227-255	0.5	5
47	Electrical characterization of chemical and dielectric passivation of InAs nanowires. <i>Semiconductor Science and Technology</i> , 2016 , 31, 114004	1.8	14
46	Estimating the Coherence of Noise in Quantum Control of a Solid-State Qubit. <i>Physical Review Letters</i> , 2016 , 117, 260501	7.4	18
45	Randomized benchmarking of quantum gates implemented by electron spin resonance. <i>Journal of Magnetic Resonance</i> , 2016 , 267, 68-78	3	8
44	Chiral quantum walks. <i>Physical Review A</i> , 2016 , 93,	2.6	22
43	Readout of Majorana parity states using a quantum dot. <i>Physical Review B</i> , 2016 , 94,	3.3	22
42	. <i>IEEE Transactions on Electron Devices</i> , 2016 , 1-6	2.9	3
41	Direct Evidence of Solution-Mediated Superoxide Transport and Organic Radical Formation in Sodium-Oxygen Batteries. <i>Journal of the American Chemical Society</i> , 2016 , 138, 11219-26	16.4	79
40	Magnetoconductance signatures of subband structure in semiconductor nanowires. <i>Physical Review B</i> , 2015 , 91,	3.3	11
39	Experimental estimation of average fidelity of a Clifford gate on a 7-qubit quantum processor. <i>Physical Review Letters</i> , 2015 , 114, 140505	7.4	40
38	Orbital Josephson interference in a nanowire proximity-effect junction. <i>Physical Review B</i> , 2015 , 91,	3.3	7
37	Hyperfine spin qubits in irradiated malonic acid: heat-bath algorithmic cooling. <i>Quantum Information Processing</i> , 2015 , 14, 2435-2461	1.6	14
36	Few-Qubit Magnetic Resonance Quantum Information Processors: Simulating Chemistry and Physics. <i>Advances in Chemical Physics</i> , 2014 , 193-228		3
35	Sensitive magnetic force detection with a carbon nanotube resonator. <i>Journal of Applied Physics</i> , 2014 , 115, 114501	2.5	3

34	Electron transport in InAs-InAlAs core-shell nanowires. <i>Applied Physics Letters</i> , 2013 , 102, 043115	3.4	17
33	Temperature-dependent electron mobility in InAs nanowires. <i>Nanotechnology</i> , 2013 , 24, 225202	3.4	17
32	Trapped charge dynamics in InAs nanowires. <i>Journal of Applied Physics</i> , 2013 , 113, 024511	2.5	16
31	Digital quantum simulation of the statistical mechanics of a frustrated magnet. <i>Nature Communications</i> , 2012 , 3, 880	17.4	41
30	Facilitating growth of InAs-InP core-shell nanowires through the introduction of Al. <i>Journal of Crystal Growth</i> , 2012 , 345, 11-15	1.6	14
29	Critical shell thickness for InAs-AlxIn1-xAs(P) core-shell nanowires. <i>Journal of Applied Physics</i> , 2012 , 112, 124305	2.5	26
28	Demonstration of sufficient control for two rounds of quantum error correction in a solid state ensemble quantum information processor. <i>Physical Review Letters</i> , 2011 , 107, 160501	7.4	32
27	Coherent control of two nuclear spins using the anisotropic hyperfine interaction. <i>Physical Review Letters</i> , 2011 , 107, 170503	7.4	49
26	Building a spin quantum bit register using semiconductor nanowires. <i>Nanotechnology</i> , 2010 , 21, 134018	3.4	9
25	Quantum data bus in dipolar coupled nuclear spin qubits. <i>Physical Review A</i> , 2009 , 80,	2.6	14
24	Nuclear spins in nanostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2009 , 246, 2203-2215	1.3	114
23	Magnetic and Electrical Control of Electron-Nuclear Spin Coupling in GaAs Double Quantum Dots. <i>Journal of the Physical Society of Japan</i> , 2008 , 77, 031011	1.5	4
22	Spin based heat engine: demonstration of multiple rounds of algorithmic cooling. <i>Physical Review Letters</i> , 2008 , 100, 140501	7.4	43
21	Dynamic nuclear polarization in a double quantum dot device: electrical induction and detection. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008 , 5, 302-305		12
20	Low temperature probe for dynamic nuclear polarization and multiple-pulse solid-state NMR. <i>Journal of Magnetic Resonance</i> , 2007 , 187, 242-50	3	18
19	Using error correction to determine the noise model. <i>Physical Review A</i> , 2007 , 75,	2.6	25
18	Large nuclear overhauser fields detected in vertically coupled double quantum dots. <i>Physical Review Letters</i> , 2007 , 99, 096804	7.4	93
17	Symmetrized characterization of noisy quantum processes. <i>Science</i> , 2007 , 317, 1893-6	33.3	151

16	Time-reversal formalism applied to maximal bipartite entanglement: Theoretical and experimental exploration. <i>Physical Review A</i> , 2006 , 73,	2.6	14
15	Solid-state NMR three-qubit homonuclear system for quantum-information processing: Control and characterization. <i>Physical Review A</i> , 2006 , 73,	2.6	30
14	Multispin dynamics of the solid-state NMR free induction decay. <i>Physical Review B</i> , 2005 , 72,	3.3	50
13	Experimental implementation of heat-bath algorithmic cooling using solid-state nuclear magnetic resonance. <i>Nature</i> , 2005 , 438, 470-3	50.4	82
12	Selective coherence transfers in homonuclear dipolar coupled spin systems. <i>Physical Review A</i> , 2005 , 71,	2.6	10
11	Hydrogen distribution, nanostructures and optical properties of high deposition rate hot-wire CVD a-Si:H. <i>Thin Solid Films</i> , 2003 , 430, 95-99	2.2	2
10	Two-domain model of light-induced structural changes in hydrogenated amorphous silicon. <i>Physical Review B</i> , 2002 , 66,	3.3	15
9	Nanovoid-related large redshift of photoluminescence peak energy in hydrogenated amorphous silicon. <i>Applied Physics Letters</i> , 2002 , 80, 40-42	3.4	10
8	Confinement effect on dipole-dipole interactions in nanofluids. <i>Science</i> , 2001 , 294, 1505-7	33.3	77
7	Magnetic susceptibility and microstructure of hydrogenated amorphous silicon measured by nuclear magnetic resonance on a single thin film. <i>Applied Physics Letters</i> , 2001 , 78, 466-468	3.4	23
6	Proton NMR and Magnetic Susceptibility in a-Si:H. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 664, 2741		4
5	Model of Hydrogen-Mediated Metastable Changes in a Two-Domain Amorphous Silicon Network. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 664, 1911		3
4	Diamagnetic Susceptibility of Micron Thick a-Si:H Films Measured via Proton NMR: A Probe of Structural Disorder. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 609, 1631		
3	Light-induced structural changes and their correlation to metastable defect creation in intrinsic hydrogenated amorphous silicon films. <i>Physical Review B</i> , 2000 , 62, 7169-7178	3.3	33
2	Structural Changes and Hydrogen Motion in A-Si:H Observed by Proton Nmr. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 557, 383		3
1	Light-Induced Change of Si-H Bond Absorption in Hydrogenated Amorphous Silicon. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 507, 685		