Lukasz Cywinski

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61 2,390 26 48 g-index

68 2,821 4.4 5.17 ext. papers ext. citations avg, IF L-index



#	Paper	IF	Citations
61	Spin-based logic in semiconductors for reconfigurable large-scale circuits. <i>Nature</i> , 2007 , 447, 573-6	50.4	326
60	How to enhance dephasing time in superconducting qubits. <i>Physical Review B</i> , 2008 , 77,	3.3	304
59	Electron spin dephasing due to hyperfine interactions with a nuclear spin bath. <i>Physical Review Letters</i> , 2009 , 102, 057601	7.4	145
58	Scaling of dynamical decoupling for spin qubits. <i>Physical Review Letters</i> , 2012 , 108, 086802	7.4	115
57	Pure quantum dephasing of a solid-state electron spin qubit in a large nuclear spin bath coupled by long-range hyperfine-mediated interactions. <i>Physical Review B</i> , 2009 , 79,	3.3	114
56	Electron spin decoherence in isotope-enriched silicon. <i>Physical Review Letters</i> , 2010 , 105, 187602	7.4	99
55	Ultrafast quenching of ferromagnetism in InMnAs induced by intense laser irradiation. <i>Physical Review Letters</i> , 2005 , 95, 167401	7.4	85
54	Ultrafast magneto-optics in ferromagnetic IIIIV semiconductors. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, R501-R530	1.8	77
53	Nonperturbative master equation solution of central spin dephasing dynamics. <i>Physical Review Letters</i> , 2012 , 109, 140403	7.4	70
52	Ultrafast demagnetization in the spd model: A theoretical study. <i>Physical Review B</i> , 2007 , 76,	3.3	69
51	Exchange coupling in silicon quantum dots: Theoretical considerations for quantum computation. <i>Physical Review B</i> , 2010 , 81,	3.3	64
50	Quantum decoherence of the central spin in a sparse system of dipolar coupled spins. <i>Physical Review B</i> , 2012 , 86,	3.3	56
49	Notch filtering the nuclear environment of a spin qubit. <i>Nature Nanotechnology</i> , 2017 , 12, 16-20	28.7	55
48	Quantum dot spin qubits in silicon: Multivalley physics. <i>Physical Review B</i> , 2010 , 82,	3.3	53
47	Realizing singlet-triplet qubits in multivalley Si quantum dots. <i>Physical Review B</i> , 2009 , 80,	3.3	51
46	Environmental noise spectroscopy with qubits subjected to dynamical decoupling. <i>Journal of Physics Condensed Matter</i> , 2017 , 29, 333001	1.8	41
45	Nonlocal resistance and its fluctuations in microstructures of band-inverted HgTe/(Hg,Cd)Te quantum wells. <i>Physical Review B</i> , 2013 , 88,	3.3	40

(2015-2011)

44	Magnetic polaron formation and exciton spin relaxation in single Cd1MMnxTe quantum dots. <i>Physical Review B</i> , 2011 , 83,	3.3	40	
43	Spectrum of the Nuclear Environment for GaAs Spin Qubits. <i>Physical Review Letters</i> , 2017 , 118, 177702	7.4	40	
42	Dynamical-decoupling noise spectroscopy at an optimal working point of a qubit. <i>Physical Review A</i> , 2014 , 90,	2.6	39	
41	In-plane radiative recombination channel of a dark exciton in self-assembled quantum dots. <i>Physical Review B</i> , 2012 , 86,	3.3	38	
40	Lateral diffusive spin transport in layered structures. <i>Physical Review B</i> , 2006 , 73,	3.3	38	
39	Femtosecond demagnetization and hot-hole relaxation in ferromagnetic Ga1\(\text{M}\) mxAs. <i>Physical Review B</i> , 2008 , 77,	3.3	34	
38	Quantum decoherence of a charge qubit in a spin-fermion model. <i>Physical Review B</i> , 2008 , 78,	3.3	34	
37	Spin transference and magnetoresistance amplification in a transistor. <i>Physical Review B</i> , 2006 , 73,	3.3	28	
36	Spin echo decay at low magnetic fields in a nuclear spin bath. <i>Physical Review B</i> , 2010 , 82,	3.3	27	
35	PbTe/PbSnTe heterostructures as analogs of topological insulators. <i>Physical Review B</i> , 2012 , 85,	3.3	24	
34	Master equation approach to the central spin decoherence problem: Uniform coupling model and role of projection operators. <i>Physical Review B</i> , 2011 , 84,	3.3	24	
33	Low-frequency spin qubit energy splitting noise in highly purified 28Si/SiGe. <i>Npj Quantum Information</i> , 2020 , 6,	8.6	23	
32	Spectroscopy of cross correlations of environmental noises with two qubits. <i>Physical Review A</i> , 2016 , 94,	2.6	23	
31	Characterization and measurement of qubit-environment-entanglement generation during pure dephasing. <i>Physical Review A</i> , 2015 , 92,	2.6	21	
30	Hyperfine interaction induced dephasing of coupled spin qubits in semiconductor double quantum dots. <i>Physical Review B</i> , 2013 , 88,	3.3	16	
29	The dynamics of two entangled qubits exposed to classical noise: role of spatial and temporal noise correlations. <i>Quantum Information Processing</i> , 2015 , 14, 3367-3397	1.6	14	
28	Optical orientation of a single Mn spin in a quantum dot: Role of carrier spin relaxation. <i>Physical Review B</i> , 2010 , 82,	3.3	14	
27	Dynamics of entanglement of two electron spins interacting with nuclear spin baths in quantum dots. <i>Physical Review B</i> , 2015 , 91,	3.3	12	



26	Influence of exciton spin relaxation on the photoluminescence spectra of semimagnetic quantum dots. <i>Physical Review B</i> , 2013 , 87,	3.3	12
25	Equivalence of qubit-environment entanglement and discord generation via pure dephasing interactions and the resulting consequences. <i>Physical Review A</i> , 2018 , 97,	2.6	11
24	Electric readout of magnetization dynamics in a ferromagnet-semiconductor system. <i>Applied Physics Letters</i> , 2006 , 89, 042105	3.4	11
23	Decoherence of two entangled spin qubits coupled to an interacting sparse nuclear spin bath: Application to nitrogen vacancy centers. <i>Physical Review B</i> , 2018 , 98,	3.3	10
22	The dynamical-decoupling-based spatiotemporal noise spectroscopy. <i>New Journal of Physics</i> , 2019 , 21, 043034	2.9	9
21	Absence of nonlocal resistance in microstructures of PbTe quantum wells. <i>Physica Status Solidi (B): Basic Research</i> , 2013 , 250, 37-47	1.3	9
20	Accuracy of dynamical-decoupling-based spectroscopy of Gaussian noise. <i>Physical Review A</i> , 2018 , 97,	2.6	8
19	The relation between the quantum discord and quantum teleportation: The physical interpretation of the transition point between different quantum discord decay regimes. <i>Europhysics Letters</i> , 2015 , 112, 10002	1.6	7
18	Spintronics for electrical measurement of light polarization. Journal of Applied Physics, 2006, 100, 0637	13 .5	7
17	Adiabatic electron charge transfer between two quantum dots in presence of 1/f noise. <i>Physical Review B</i> , 2020 , 101,	3.3	6
16	Spin-lattice relaxation of an individual Mn2+ ion in a CdTe/ZnTe quantum dot. <i>Physical Review B</i> , 2015 , 92,	3.3	6
15	Localization of a magnetic moment using a two-qubit probe. <i>Physical Review A</i> , 2017 , 96,	2.6	5
14	Hyperfine interaction for holes in quantum dots: k[b model. <i>Physical Review B</i> , 2019 , 100,	3.3	5
13	How to detect qubit-environment entanglement generated during qubit dephasing. <i>Physical Review A</i> , 2019 , 100,	2.6	5
12	Conductance oscillations in quantum point contacts of InAs/GaSb heterostructures. <i>Physical Review B</i> , 2016 , 93,	3.3	4
11	Spectroscopy of classical environmental noise with a qubit subjected to projective measurements. <i>Physical Review A</i> , 2020 , 101,	2.6	3
10	Influence of nuclear spin polarization on the spin-echo signal of an NV-center qubit. <i>Physical Review B</i> , 2020 , 101,	3.3	3
9	Appearance of objectivity for NV centers interacting with dynamically polarized nuclear environment. <i>New Journal of Physics</i> , 2021 , 23, 043036	2.9	3

LIST OF PUBLICATIONS

8	Characterization of a quasistatic environment with a qubit. <i>Physical Review A</i> , 2019 , 99,	2.6	2	
7	Relationship between subjecting the qubit to dynamical decoupling and to a sequence of projective measurements. <i>Physical Review A</i> , 2020 , 101,	2.6	2	
6	Noise representations of open system dynamics. Scientific Reports, 2020, 10, 22189	4.9	2	
5	Interplay of charge noise and coupling to phonons in adiabatic electron transfer between quantum dots. <i>Physical Review B</i> , 2021 , 104,	3.3	2	
4	Mechanisms of optical orientation of an individual Mn ion spin in a II-VI quantum dot. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 055303	1.8	1	
3	Decoherence-assisted detection of entanglement of two qubit states. <i>Physical Review A</i> , 2018 , 98,	2.6	1	
2	Influence of disorder on the optical absorption in semiconductors: Application to epitaxially grown III-V compounds. <i>Physical Review B</i> , 2006 , 73,	3.3	1	
1	ELECTRICAL EXPRESSION OF SPIN ACCUMULATION IN FERROMAGNET/SEMICONDUCTOR STRUCTURES. <i>Modern Physics Letters B</i> , 2007 , 21, 1509-1529	1.6		