

# Alexander N Korotkov

## List of Publications by Year in descending order

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Version: 2024-02-01

83  
papers

3,814  
citations

147801

31  
h-index

128289

60  
g-index

83  
all docs

83  
docs citations

83  
times ranked

2156  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental violation of a Bell's inequality in time with weak measurement. Nature Physics, 2010, 6, 442-447.	16.7	293
2	Continuous quantum measurement of a double dot. Physical Review B, 1999, 60, 5737-5742.	3.2	267
3	Reversal of the Weak Measurement of a Quantum State in a Superconducting Phase Qubit. Physical Review Letters, 2008, 101, 200401.	7.8	217
4	Undoing a Weak Quantum Measurement of a Solid-State Qubit. Physical Review Letters, 2006, 97, 166805.	7.8	213
5	Decoherence suppression by quantum measurement reversal. Physical Review A, 2010, 81, .	2.5	209
6	Selective quantum evolution of a qubit state due to continuous measurement. Physical Review B, 2001, 63, .	3.2	204
7	Catch and Release of Microwave Photon States. Physical Review Letters, 2013, 110, 107001.	7.8	159
8	Possible performance of capacitively coupled single-electron transistors in digital circuits. Journal of Applied Physics, 1995, 78, 2520-2530.	2.5	119
9	Squeezing of a nanomechanical resonator by quantum nondemolition measurement and feedback. Physical Review B, 2005, 71, .	3.2	93
10	Catching Time-Reversed Microwave Coherent State Photons with 99.4% Absorption Efficiency. Physical Review Letters, 2014, 112, .	7.8	92
11	Measurement-Induced State Transitions in a Superconducting Qubit: Beyond the Rotating Wave Approximation. Physical Review Letters, 2016, 117, 190503.	7.8	91
12	Quantum feedback control of a solid-state qubit. Physical Review B, 2002, 66, .	3.2	88
13	Leggett-Garg Inequality with a Kicked Quantum Pump. Physical Review Letters, 2006, 97, 026805.	7.8	82
14	Output spectrum of a detector measuring quantum oscillations. Physical Review B, 2001, 63, .	3.2	81
15	High-fidelity controlled- $\int f Z$ gate for resonator-based superconducting quantum computers. Physical Review A, 2013, 87, .	2.5	75
16	Entanglement of solid-state qubits by measurement. Physical Review B, 2003, 67, .	3.2	72
17	Quantum theory of a bandpass Purcell filter for qubit readout. Physical Review A, 2015, 92, .	2.5	71
18	Signatures of Quantum Behavior in Single-Qubit Weak Measurements. Physical Review Letters, 2006, 96, 200404.	7.8	63

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19	Qubit feedback and control with kicked quantum nondemolition measurements: A quantum Bayesian analysis. Physical Review B, 2006, 74, .	3.2	61
20	Possible cooling by resonant Fowler-Nordheim emission. Applied Physics Letters, 1999, 75, 2491-2493.	3.3	57
21	Charge sensitivity of radio frequency single-electron transistor. Applied Physics Letters, 1999, 74, 4052-4054.	3.3	53
22	Flying microwave qubits with nearly perfect transfer efficiency. Physical Review B, 2011, 84, .	3.2	48
23	Purcell effect with microwave drive: Suppression of qubit relaxation rate. Physical Review B, 2014, 89, .	3.2	48
24	Operation and intrinsic error budget of a two-qubit cross-resonance gate. Physical Review A, 2019, 100, .	2.5	48
25	Compressed sensing quantum process tomography for superconducting quantum gates. Physical Review B, 2014, 90, .	3.2	45
26	Wireless single-electron logic biased by alternating electric field. Applied Physics Letters, 1995, 67, 2412-2414.	3.3	43
27	Single-electron-parametron-based logic devices. Journal of Applied Physics, 1998, 84, 6114-6126.	2.5	43
28	Nonequilibrium spin distribution in a single-electron transistor. Physical Review B, 1999, 59, 89-92.	3.2	41
29	Single-electron logic and memory devices. International Journal of Electronics, 1999, 86, 511-547.	1.4	40
30	Shot noise suppression at one-dimensional hopping. Physical Review B, 2000, 61, 15975-15987.	3.2	38
31	Resonatorâ€“zero-qubit architecture for superconducting qubits. Physical Review A, 2012, 85, .	2.5	37
32	Spectrum of qubit oscillations from generalized Bloch equations. Physical Review B, 2003, 67, .	3.2	32
33	Qubit State Monitoring by Measurement of Three Complementary Observables. Physical Review Letters, 2010, 105, 100506.	7.8	32
34	Uncollapsing the wavefunction by undoing quantum measurements. Contemporary Physics, 2010, 51, 125-147.	1.8	32
35	Quantum Bayesian approach to circuit QED measurement with moderate bandwidth. Physical Review A, 2016, 94, .	2.5	32
36	Arrow of Time for Continuous Quantum Measurement. Physical Review Letters, 2017, 119, 220507.	7.8	29

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37	Charge sensitivity of superconducting single-electron transistor. Applied Physics Letters, 1996, 69, 2593-2595.	3.3	27
38	Nonideal quantum detectors in Bayesian formalism. Physical Review B, 2003, 67, .	3.2	27
39	Simple quantum feedback of a solid-state qubit. Physical Review B, 2005, 71, .	3.2	27
40	Shot-noise suppression at two-dimensional hopping. Physical Review B, 2001, 63, .	3.2	26
41	Catch-Disperse-Release Readout for Superconducting Qubits. Physical Review Letters, 2013, 110, 210501.	7.8	25
42	Robust quantum state transfer using tunable couplers. Physical Review B, 2015, 91, .	3.2	23
43	Measuring a transmon qubit in circuit QED: Dressed squeezed states. Physical Review A, 2016, 94, .	2.5	23
44	Continuous quantum feedback of coherent oscillations in a solid-state qubit. Physical Review B, 2005, 72, .	3.2	22
45	Avoiding loopholes with hybrid Bell-Leggett-Garg inequalities. Physical Review A, 2014, 89, .	2.5	22
46	Theoretical analysis of measurement crosstalk for coupled Josephson phase qubits. Physical Review B, 2007, 75, .	3.2	21
47	Theoretical analysis of the resistively coupled single-electron transistor. Applied Physics Letters, 1998, 72, 3226-3228.	3.3	20
48	Continuous measurement of entangled qubits. Physical Review A, 2002, 65, .	2.5	19
49	Special issue on quantum computing with superconducting qubits. Quantum Information Processing, 2009, 8, 51-54.	2.2	17
50	Crossover of phase qubit dynamics in the presence of a negative-result weak measurement. Physical Review B, 2007, 75, .	3.2	16
51	Analysis of integrated single-electron memory operation. Journal of Applied Physics, 2002, 92, 7291-7295.	2.5	15
52	Single electron memory devices: Toward background charge insensitive operation. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2003, 21, 2860.	1.6	14
53	Simplified quantum error detection and correction for superconducting qubits. Physical Review A, 2012, 86, .	2.5	14
54	Quantum Zeno stabilization in weak continuous measurement of two qubits. Physical Review B, 2006, 73, .	3.2	13

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55	Coherence of a Josephson phase qubit under partial-collapse measurement. Physical Review B, 2007, 76, .	3.2	13
56	Qubit measurement error from coupling with a detuned neighbor in circuit QED. Physical Review A, 2015, 92, .	2.5	12
57	Multitime correlators in continuous measurement of qubit observables. Physical Review A, 2018, 97, .	2.5	12
58	Correlated quantum measurement of a solid-state qubit. Physical Review B, 2001, 64, .	3.2	11
59	Analysis of the radio-frequency single-electron transistor with large quality factor. Applied Physics Letters, 2003, 83, 2898-2900.	3.3	11
60	Correlators in simultaneous measurement of non-commuting qubit observables. Npj Quantum Information, 2018, 4, .	6.7	11
61	Shot noise at hopping via two sites. Physical Review B, 2000, 62, R7727-R7730.	3.2	10
62	Analysis of measurement errors for a superconducting phase qubit. Physical Review B, 2006, 74, .	3.2	10
63	Quantum efficiency of binary-outcome detectors of solid-state qubits. Physical Review B, 2008, 78, .	3.2	10
64	Implementing generalized measurements with superconducting qubits. Physical Review A, 2014, 90, .	2.5	10
65	Bacon-Shor code with continuous measurement of noncommuting operators. Physical Review A, 2017, 95, .	2.5	10
66	Numerical analysis of radio-frequency single-electron transistor operation. Physical Review B, 2004, 69, .	3.2	9
67	Comment on "Continuous Quantum Measurement: Inelastic Tunneling and Lack of Current Oscillations" Physical Review Letters, 2005, 94, 069701.	7.8	9
68	Single-electron soliton avalanches in tunnel-junction arrays. Physical Review B, 2001, 64, .	3.2	8
69	Error-correcting Bacon-Shor code with continuous measurement of noncommuting operators. Physical Review A, 2020, 102, .	2.5	8
70	Analysis of $Q_{0}$ -Independent Single-Electron Systems. VLSI Design, 1998, 6, 341-344.	0.5	7
71	A numerical study of transport and shot noise in 2D hopping. Journal of Physics Condensed Matter, 2006, 18, 1999-2012.	1.8	7
72	Persistent Rabi oscillations probed via low-frequency noise correlation. Physical Review B, 2011, 83, .	3.2	5

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73	The Sleeping Beauty approach. Nature Physics, 2012, 8, 107-108.	16.7	4
74	Correlators Exceeding One in Continuous Measurements of Superconducting Qubits. Physical Review Letters, 2019, 122, 223603.	7.8	4
75	Hybrid phase-spaceâ€Fock-space approach to evolution of a driven nonlinear resonator. Physical Review A, 2017, 96, .	2.5	3
76	Two-time correlators for propagating squeezed microwave fields in transients. Physical Review A, 2019, 99, .	2.5	3
77	Quantum feedback of a double-dot qubit. Microelectronics Journal, 2005, 36, 253-255.	2.0	2
78	Violating the modified Helstrom bound with nonprojective measurements. Physical Review A, 2015, 91, .	2.5	2
79	Single-Electron Parametron. VLSI Design, 1998, 6, 43-46.	0.5	2
80	Possible Wireless Single-Electron Logic Biased by Electric Field. VLSI Design, 1998, 6, 39-41.	0.5	1
81	Uncollapsing the wavefunction. , 2007, , .		1
82	Non-ideal quantum feedback of a solid-state qubit. Journal of Physics: Conference Series, 2006, 38, 163-166.	0.4	0
83	Janus sequences of quantum measurements and the arrow of time. AIP Conference Proceedings, 2017, , .	0.4	0