

Joel J Wallman

List of Publications by Year in descending order

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43
papers

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citations

304701

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315719

38
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44
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44
docs citations

44
times ranked

1539
citing authors

#	ARTICLE	IF	CITATIONS
1	Simulating and Mitigating Crosstalk. Physical Review Letters, 2021, 126, 230502.	7.8	14
2	Efficiently computing logical noise in quantum error-correcting codes. Physical Review A, 2021, 103, .	2.5	2
3	Independent state and measurement characterization for quantum computers. Physical Review Research, 2021, 3, .	3.6	12
4	Randomized Compiling for Scalable Quantum Computing on a Noisy Superconducting Quantum Processor. Physical Review X, 2021, 11, .	8.9	41
5	Efficient learning of quantum noise. Nature Physics, 2020, 16, 1184-1188.	16.7	112
6	Combining T1 and T2 estimation with randomized benchmarking and bounding the diamond distance. Physical Review A, 2020, 102, .	2.5	3
7	Efficient Estimation of Pauli Channels. ACM Transactions on Quantum Computing, 2020, 1, 1-32.	4.3	57
8	On the freedom in representing quantum operations. New Journal of Physics, 2019, 21, 023006.	2.9	9
9	Bounding the average gate fidelity of composite channels using the unitarity. New Journal of Physics, 2019, 21, 053016.	2.9	29
10	Statistical analysis of randomized benchmarking. Physical Review A, 2019, 99, .	2.5	23
11	Randomized benchmarking under different gate sets. Physical Review A, 2019, 99, .	2.5	12
12	Contextuality and the Single-Qubit Stabilizer Subtheory. Physical Review Letters, 2019, 122, 140405.	7.8	10
13	Multiqubit randomized benchmarking using few samples. Physical Review A, 2019, 100, .	2.5	21
14	Characterizing large-scale quantum computers via cycle benchmarking. Nature Communications, 2019, 10, 5347.	12.8	155
15	Characterizing large-scale quantum devices. , 2019, , .		0
16	From randomized benchmarking experiments to gate-set circuit fidelity: how to interpret randomized benchmarking decay parameters. New Journal of Physics, 2018, 20, 092001.	2.9	22
17	Quantum Error Correction Decoheres Noise. Physical Review Letters, 2018, 121, 190501.	7.8	36
18	Representations of the multi-qubit Clifford group. Journal of Mathematical Physics, 2018, 59, 072201.	1.1	11

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19	Hard decoding algorithm for optimizing thresholds under general Markovian noise. Physical Review A, 2017, 95, .	2.5	28
20	Contextuality under weak assumptions. New Journal of Physics, 2017, 19, 033030.	2.9	7
21	Bounding quantum gate error rate based on reported average fidelity. New Journal of Physics, 2016, 18, 012002.	2.9	77
22	Robust characterization of leakage errors. New Journal of Physics, 2016, 18, 043021.	2.9	36
23	Estimating the Coherence of Noise in Quantum Control of a Solid-State Qubit. Physical Review Letters, 2016, 117, 260501.	7.8	31
24	Noise tailoring for scalable quantum computation via randomized compiling. Physical Review A, 2016, 94, .	2.5	210
25	Characterizing universal gate sets via dihedral benchmarking. Physical Review A, 2015, 92, .	2.5	69
26	Robust Characterization of Loss Rates. Physical Review Letters, 2015, 115, 060501.	7.8	34
27	Estimating Outcome Probabilities of Quantum Circuits Using Quasiprobabilities. Physical Review Letters, 2015, 115, 070501.	7.8	112
28	Estimating the coherence of noise. New Journal of Physics, 2015, 17, 113020.	2.9	127
29	Contextuality Supplies the Magic for Quantum Computation. , 2015, , .		1
30	Randomized benchmarking with confidence. New Journal of Physics, 2014, 16, 103032.	2.9	113
31	Measurement-Based Classical Computation. Physical Review Letters, 2014, 112, 140505.	7.8	21
32	Contextuality supplies the "magic" for quantum computation. Nature, 2014, 510, 351-355.	27.8	398
33	Early transition metal dopants in cuprous oxide: To spin or not to spin. Current Applied Physics, 2013, 13, 1707-1712.	2.4	6
34	Observers can always generate nonlocal correlations without aligning measurements by covering all their bases. Physical Review A, 2012, 85, .	2.5	29
35	Experimentally demonstrating reference-frame-independent violations of Bell inequalities. Physical Review A, 2012, 86, .	2.5	21
36	Non-negative subtheories and quasiprobability representations of qubits. Physical Review A, 2012, 85, .	2.5	31

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37	Revisiting Consistency Conditions for Quantum States of Systems on Closed Timelike Curves: An Epistemic Perspective. Foundations of Physics, 2012, 42, 656-673.	1.3	8
38	Generalized Bell-inequality experiments and computation. Physical Review A, 2011, 84, .	2.5	15
39	Generating nonclassical correlations without fully aligning measurements. Physical Review A, 2011, 83, .	2.5	30
40	Evidence for alignment of the rotation and velocity vectors in pulsars - II. Further data and emission heights. Monthly Notices of the Royal Astronomical Society, 2007, 381, 1625-1637.	4.4	65
41	Randomized benchmarking with gate-dependent noise. Quantum - the Open Journal for Quantum Science, 0, 2, 47.	0.0	68
42	Real Randomized Benchmarking. Quantum - the Open Journal for Quantum Science, 0, 2, 85.	0.0	33
43	Clifford recompilation for faster classical simulation of quantum circuits. Quantum - the Open Journal for Quantum Science, 0, 3, 170.	0.0	8