John A Smolin

List of Publications by Year in descending order

57 papers	17,332 citations	81743 39 h-index	149479 56 g-index
57 all docs	57 docs citations	57 times ranked	6159 citing authors

#	Article	IF	Citations
1	Hardware-efficient random circuits to classify noise in a multiqubit system. Physical Review A, 2021, 104, .	1.0	2
2	Laser-annealing Josephson junctions for yielding scaled-up superconducting quantum processors. Npj Quantum Information, 2021, 7, .	2.8	80
3	Three-Qubit Randomized Benchmarking. Physical Review Letters, 2019, 122, 200502.	2.9	96
4	Scalable randomised benchmarking of non-Clifford gates. Npj Quantum Information, 2016, 2, .	2.8	65
5	How to efficiently select an arbitrary Clifford group element. Journal of Mathematical Physics, 2014, 55, .	0.5	36
6	Bound Entangled States with a Private Key and their Classical Counterpart. Physical Review Letters, 2014, 112, 110502.	2.9	16
7	Maximal Privacy without Coherence. Physical Review Letters, 2014, 113, 030502.	2.9	10
8	Implementing a strand of a scalable fault-tolerant quantum computing fabric. Nature Communications, 2014, 5, 4015.	5.8	234
9	An exactly solvable model for quantum communications. Nature, 2013, 504, 263-267.	13.7	4
10	Process verification of two-qubit quantum gates by randomized benchmarking. Physical Review A, 2013, 87, .	1.0	134
11	Self-consistent quantum process tomography. Physical Review A, 2013, 87, .	1.0	193
12	Detecting Incapacity of a Quantum Channel. Physical Review Letters, 2012, 108, 230507.	2.9	14
13	Characterization of Addressability by Simultaneous Randomized Benchmarking. Physical Review Letters, 2012, 109, 240504.	2.9	164
14	Universal Quantum Gate Set Approaching Fault-Tolerant Thresholds with Superconducting Qubits. Physical Review Letters, 2012, 109, 060501.	2.9	251
15	Superconducting qubit in a waveguide cavity with a coherence time approaching 0.1 ms. Physical Review B, 2012, 86, .	1.1	441
16	Entanglement of Two Superconducting Qubits in a Waveguide Cavity via Monochromatic Two-Photon Excitation. Physical Review Letters, 2012, 109, 240505.	2.9	88
17	Quantum communication with Gaussian channels of zero quantum capacity. Nature Photonics, 2011, 5, 624-627.	15.6	67
18	High Performance Single-Error-Correcting Quantum Codes for Amplitude Damping. IEEE Transactions on Information Theory, 2011, 57, 7180-7188.	1.5	27

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19	Unextendible maximally entangled bases. Physical Review A, 2011, 84, .	1.0	42
20	Simple All-Microwave Entangling Gate for Fixed-Frequency Superconducting Qubits. Physical Review Letters, 2011, 107, 080502.	2.9	308
21	Extensive Nonadditivity of Privacy. Physical Review Letters, 2009, 103, 120503.	2.9	40
22	Can Nonprivate Channels Transmit Quantum Information?. Physical Review Letters, 2009, 102, 010501.	2.9	15
23	Codeword Stabilized Quantum Codes. IEEE Transactions on Information Theory, 2009, 55, 433-438.	1.5	79
24	The Quantum Capacity With Symmetric Side Channels. IEEE Transactions on Information Theory, 2008, 54, 4208-4217.	1.5	68
25	Codeword stabilized quantum codes. , 2008, , .		6
26	Structured Codes Improve the Bennett-Brassard-84 Quantum Key Rate. Physical Review Letters, 2008, 100, 170502.	2.9	59
27	Degenerate Quantum Codes for Pauli Channels. Physical Review Letters, 2007, 98, 030501.	2.9	97
28	Simple Family of Nonadditive Quantum Codes. Physical Review Letters, 2007, 99, 130505.	2.9	31
29	Inequalities and Separations Among Assisted Capacities of Quantum Channels. Physical Review Letters, 2006, 96, 150502.	2.9	26
30	Entanglement of Superpositions. Physical Review Letters, 2006, 97, 100502.	2.9	72
31	Entanglement of assistance and multipartite state distillation. Physical Review A, 2005, 72, .	1.0	113
32	Unextendible Product Bases, Uncompletable Product Bases and Bound Entanglement. Communications in Mathematical Physics, 2003, 238, 379-410.	1.0	263
33	Rank two bipartite bound entangled states do not exist. Theoretical Computer Science, 2003, 292, 589-596.	0.5	53
34	Superactivation of Bound Entanglement. Physical Review Letters, 2003, 90, 107901.	2.9	84
35	Multipartite entanglement gambling: The power of asymptotic state transformations assisted by a sublinear amount of quantum communication. Physical Review A, 2003, 68, .	1.0	5
36	Four-party unlockable bound entangled state. Physical Review A, 2001, 63, .	1.0	149

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37	Nonadditivity of Bipartite Distillable Entanglement Follows from a Conjecture on Bound Entangled Werner States. Physical Review Letters, 2001, 86, 2681-2684.	2.9	89
38	Remote State Preparation. Physical Review Letters, 2001, 87, 077902.	2.9	699
39	Evidence for bound entangled states with negative partial transpose. Physical Review A, 2000, 61, .	1.0	171
40	Exact and asymptotic measures of multipartite pure-state entanglement. Physical Review A, 2000, 63, .	1.0	323
41	Simulating quantum operations with mixed environments. Physical Review A, 1999, 60, 881-885.	1.0	28
42	Entanglement-Assisted Classical Capacity of Noisy Quantum Channels. Physical Review Letters, 1999, 83, 3081-3084.	2.9	439
43	Physical optimization of quantum error correction circuits. Physical Review B, 1999, 60, 11404-11416.	1.1	88
44	Unextendible Product Bases and Bound Entanglement. Physical Review Letters, 1999, 82, 5385-5388.	2.9	569
45	Quantum nonlocality without entanglement. Physical Review A, 1999, 59, 1070-1091.	1.0	829
46	Quantum-channel capacity of very noisy channels. Physical Review A, 1998, 57, 830-839.	1.0	216
47	Optimal universal and state-dependent quantum cloning. Physical Review A, 1998, 57, 2368-2378.	1.0	468
48	Quantum capacity is properly defined without encodings. Physical Review A, 1998, 58, 3496-3501.	1.0	25
49	Single quantum querying of a database. Physical Review A, 1998, 58, 1822-1826.	1.0	39
50	Purification of Noisy Entanglement and Faithful Teleportation via Noisy Channels[Phys. Rev. Lett. 76, 722 (1996)]. Physical Review Letters, 1997, 78, 2031-2031.	2.9	57
51	Perfect quantum-error-correction coding in 24 laser pulses. Physical Review A, 1997, 55, 945-950.	1.0	23
52	Capacities of Quantum Erasure Channels. Physical Review Letters, 1997, 78, 3217-3220.	2.9	297
53	Mixed-state entanglement and quantum error correction. Physical Review A, 1996, 54, 3824-3851.	1.0	4,032
54	Purification of Noisy Entanglement and Faithful Teleportation via Noisy Channels. Physical Review Letters, 1996, 76, 722-725.	2.9	2,318

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55	Parity bit in quantum cryptography. Physical Review A, 1996, 54, 2675-2684.	1.0	26
56	Five two-bit quantum gates are sufficient to implement the quantum Fredkin gate. Physical Review A, 1996, 53, 2855-2856.	1.0	206
57	Elementary gates for quantum computation. Physical Review A, 1995, 52, 3457-3467.	1.0	2,958