Michael R Geller

List of Publications by Year
in descending order

29 papers	1,351 citations	471509 17 h-index	501196 28 g-index
29 all docs	29 docs citations	29 times ranked	1538 citing authors

#	Article	IF	Citations
1	Qubit Architecture with High Coherence and Fast Tunable Coupling. Physical Review Letters, 2014, 113, 220502.	7.8	387
2	Emulation of a Quantum Spin with a Superconducting Phase Qudit. Science, 2009, 325, 722-725.	12.6	237
3	Fast adiabatic qubit gates using only<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>Ïƒ</mml:mi><mml:mi>z</mml:mi></mml:msub></mml:m Physical Review A, 2014, 90, .	2.5	137
4	High-fidelity controlled-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Ïƒ</mml:mi><mml:mi>Z</mml:mi></mml:msup></mml:math>gate for resonator-based superconducting quantum computers. Physical Review A, 2013, 87, .	2.5	75
5	Superconducting phase qubit coupled to a nanomechanical resonator: Beyond the rotating-wave approximation. Physical Review A, 2004, 70, .	2.5	57
6	Tunable coupler for superconducting Xmon qubits: Perturbative nonlinear model. Physical Review A, 2015, 92, .	2.5	57
7	Surface code with decoherence: An analysis of three superconducting architectures. Physical Review A, 2012, 86, .	2.5	55
8	Efficient error models for fault-tolerant architectures and the Pauli twirling approximation. Physical Review A, 2013, 88, .	2.5	48
9	Understanding the effects of leakage in superconducting quantum-error-detection circuits. Physical Review A, 2013, 88, .	2.5	44
10	Rigorous measurement error correction. Quantum Science and Technology, 2020, 5, 03LT01.	5.8	33
11	Toward efficient correction of multiqubit measurement errors: pair correlation method. Quantum Science and Technology, 2021, 6, 025009.	5.8	31
12	Analysis of a tunable coupler for superconducting phase qubits. Physical Review B, 2010, 82, .	3.2	30
13	Quantum logic with weakly coupled qubits. Physical Review A, 2010, 81, .	2.5	21
14	Controlled-not gate with weakly coupled qubits: Dependence of fidelity on the form of interaction. Physical Review A, 2010, 81, .	2.5	19
15	Factoring 51 and 85 with 8 qubits. Scientific Reports, 2013, 3, 3023.	3.3	19
16	Universal quantum simulation with prethreshold superconducting qubits: Single-excitation subspace method. Physical Review A, 2015, 91, .	2.5	19
17	Simulating the transverse Ising model on a quantum computer: Error correction with the surface code. Physical Review A, 2013, 87, .	2.5	18
18	Logical error rate in the Pauli twirling approximation. Scientific Reports, 2015, 5, 14670.	3.3	11

#	Article	IF	Citations
19	Sampling and Scrambling on a Chain of Superconducting Qubits. Physical Review Applied, 2018, 10, .	3.8	11
20	Conditionally Rigorous Mitigation of Multiqubit Measurement Errors. Physical Review Letters, 2021, 127, 090502.	7.8	11
21	Aharonov-Bohm effect in the non-Abelian quantum Hall fluid. Physical Review B, 2006, 73, .	3.2	8
22	Decoherence and interferometric sensitivity of boson sampling in superconducting resonator networks. Physical Review B, 2017, 95, .	3.2	6
23	Quantum simulation of operator spreading in the chaotic Ising model. Physical Review E, 2022, 105, 035302.	2.1	6
24	Experimental quantum learning of a spectral decomposition. Physical Review Research, 2021, 3, .	3.6	4
25	Controlled-NOT logic gate for phase qubits based on conditional spectroscopy. Quantum Information Processing, 2012, 11, 1349-1357.	2.2	2
26	Three-step implementation of anynÃ—nunitary with a complete graph ofnqubits. Physical Review A, 2015, 92, .	2.5	2
27	Toward prethreshold gate-based quantum simulation of chemical dynamics: using potential energy surfaces to simulate few-channel molecular collisions. Quantum Information Processing, 2018, 17, 1.	2.2	2
28	Fusing the single-excitation subspace with $${mathbb C}^{2^n}$$. Scientific Reports, 2021, 11, 402.	3.3	1
29	Quantum gate design: A perspective. Physica Status Solidi (B): Basic Research, 2009, 246, 972-974.	1.5	0