

# Dmitri Maslov

## List of Publications by Year in descending order

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26  
papers

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394421

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all docs

26  
docs citations

26  
times ranked

1556  
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient Ancilla-Free Reversible and Quantum Circuits for the Hidden Weighted Bit Function. IEEE Transactions on Computers, 2022, 71, 1170-1180.	3.4	2
2	Depth Optimization of CZ, CNOT, and Clifford Circuits. IEEE Transactions on Quantum Engineering, 2022, 3, 1-8.	4.9	6
3	6-qubit optimal Clifford circuits. Npj Quantum Information, 2022, 8, .	6.7	2
4	Quantum Computer Systems for Scientific Discovery. PRX Quantum, 2021, 2, .	9.2	142
5	Quantum advantage for computations with limited space. Nature Physics, 2021, 17, 894-897.	16.7	15
6	Hadamard-Free Circuits Expose the Structure of the Clifford Group. IEEE Transactions on Information Theory, 2021, 67, 4546-4563.	2.4	32
7	Approximate quantum Fourier transform with $O(n \log(n))$ T gates. Npj Quantum Information, 2020, 6, .	6.7	39
8	Ground-state energy estimation of the water molecule on a trapped-ion quantum computer. Npj Quantum Information, 2020, 6, .	6.7	184
9	Low-cost quantum circuits for classically intractable instances of the Hamiltonian dynamics simulation problem. Npj Quantum Information, 2019, 5, .	6.7	26
10	An Outlook for Quantum Computing [Point of View]. Proceedings of the IEEE, 2019, 107, 5-10.	21.3	34
11	Shorter Stabilizer Circuits via Bruhat Decomposition and Quantum Circuit Transformations. IEEE Transactions on Information Theory, 2018, 64, 4729-4738.	2.4	32
12	Toward the first quantum simulation with quantum speedup. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9456-9461.	7.1	271
13	Use of global interactions in efficient quantum circuit constructions. New Journal of Physics, 2018, 20, 033018.	2.9	33
14	Automated optimization of large quantum circuits with continuous parameters. Npj Quantum Information, 2018, 4, .	6.7	120
15	Experimental comparison of two quantum computing architectures. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3305-3310.	7.1	326
16	Basic circuit compilation techniques for an ion-trap quantum machine. New Journal of Physics, 2017, 19, 023035.	2.9	75
17	Advantages of using relative-phase Toffoli gates with an application to multiple control Toffoli optimization. Physical Review A, 2016, 93, .	2.5	108
18	Optimal and asymptotically optimal NCT reversible circuits by the gate types. Quantum Information and Computation, 2016, 16, 1096-1112.	0.3	13

#	ARTICLE	IF	CITATIONS
19	Polynomial-Time T-Depth Optimization of Clifford+T Circuits Via Matroid Partitioning. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2014, 33, 1476-1489.	2.7	165
20	A Meet-in-the-Middle Algorithm for Fast Synthesis of Depth-Optimal Quantum Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2013, 32, 818-830.	2.7	328
21	Asymptotically Optimal Approximation of Single Qubit Unitaries by Clifford and $T$ Circuits Using a Constant Number of Ancillary Qubits. Physical Review Letters, 2013, 110, 190502.	7.8	88
22	Fast and efficient exact synthesis of single-qubit unitaries generated by Clifford and T gates. Quantum Information and Computation, 2013, 13, 607-630.	0.3	82
23	Reversible Circuit Optimization Via Leaving the Boolean Domain. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2011, 30, 806-816.	2.7	28
24	Quantum Circuit Simplification and Level Compaction. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 436-444.	2.7	174
25	Quantum Circuit Placement. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 752-763.	2.7	74
26	Clifford Circuit Optimization with Templates and Symbolic Pauli Gates. Quantum - the Open Journal for Quantum Science, 0, 5, 580.	0.0	8