

# Zoltan Zimboras

## List of Publications by Year in descending order

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50  
papers

1,165  
citations

430874

18  
h-index

454955

30  
g-index

50  
all docs

50  
docs citations

50  
times ranked

897  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mitigation of readout noise in near-term quantum devices by classical post-processing based on detector tomography. Quantum - the Open Journal for Quantum Science, 0, 4, 257.	0.0	127
2	Entanglement negativity in the harmonic chain out of equilibrium. New Journal of Physics, 2014, 16, 123020.	2.9	104
3	On the partial transpose of fermionic Gaussian states. New Journal of Physics, 2015, 17, 053048.	2.9	92
4	On the universality of the quantum approximate optimization algorithm. Quantum Information Processing, 2020, 19, 1.	2.2	54
5	Entanglement negativity in two-dimensional free lattice models. Physical Review B, 2016, 93, .	3.2	51
6	Entanglement entropy of aperiodic quantum spin chains. Europhysics Letters, 2007, 79, 37001.	2.0	50
7	Entanglement in the XX spin chain with an energy current. Physical Review A, 2005, 71, .	2.5	49
8	Quantum Transport Enhancement by Time-Reversal Symmetry Breaking. Scientific Reports, 2013, 3, 2361.	3.3	49
9	Entanglement negativity bounds for fermionic Gaussian states. Physical Review B, 2018, 97, .	3.2	43
10	Area-law violation for the mutual information in a nonequilibrium steady state. Physical Review A, 2014, 89, .	2.5	36
11	Chiral quantum walks. Physical Review A, 2016, 93, .	2.5	36
12	Time asymptotics and entanglement generation of Clifford quantum cellular automata. Journal of Mathematical Physics, 2010, 51, 015203.	1.1	32
13	Concept of Orbital Entanglement and Correlation in Quantum Chemistry. Journal of Chemical Theory and Computation, 2021, 17, 79-95.	5.3	32
14	Precision bounds for gradient magnetometry with atomic ensembles. Physical Review A, 2018, 97, .	2.5	31
15	Quantum Optimization for the Graph Coloring Problem with Space-Efficient Embedding. , 2020, , .		27
16	The von Neumann entropy asymptotics in multidimensional fermionic systems. Journal of Mathematical Physics, 2007, 48, 102110.	1.1	25
17	Entanglement entropy in quantum spin chains with broken reflection symmetry. Physical Review A, 2010, 82, .	2.5	25
18	Symmetry criteria for quantum simulability of effective interactions. Physical Review A, 2015, 92, .	2.5	24

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19	Temperature driven quenches in the Ising model: appearance of negative Rényi mutual information. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2017, 50, 264005.	2.1	24
20	A dynamic systems approach to fermions and their relation to spins. <i>EPJ Quantum Technology</i> , 2014, 1, .	6.3	21
21	Modeling and mitigation of cross-talk effects in readout noise with applications to the Quantum Approximate Optimization Algorithm. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 5, 464.	0.0	20
22	Error mitigation for variational quantum algorithms through mid-circuit measurements. <i>Physical Review A</i> , 2022, 105, .	2.5	18
23	Entanglement entropy in aperiodic singlet phases. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P04004-P04004.	2.3	17
24	Universal Extensions of Restricted Classes of Quantum Operations. <i>Physical Review Letters</i> , 2017, 119, 220502.	7.8	16
25	On the sharpness of the zero-entropy-density conjecture. <i>Journal of Mathematical Physics</i> , 2005, 46, 123301.	1.1	15
26	Space-efficient binary optimization for variational quantum computing. <i>Npj Quantum Information</i> , 2022, 8, .	6.7	13
27	Quantification of GR effects in muon g-2, EDM and other spin precession experiments. <i>Classical and Quantum Gravity</i> , 2018, 35, 175003.	4.0	12
28	On squares of representations of compact Lie algebras. <i>Journal of Mathematical Physics</i> , 2015, 56, 081702.	1.1	11
29	Central charges of aperiodic holographic tensor-network models. <i>Physical Review A</i> , 2020, 102, .	2.5	10
30	Fermionic systems for quantum information people. <i>Journal of Physics A: Mathematical and Theoretical</i> , 0, , .	2.1	10
31	Fermion Sampling: A Robust Quantum Computational Advantage Scheme Using Fermionic Linear Optics and Magic Input States. <i>PRX Quantum</i> , 2022, 3, .	9.2	10
32	Entanglement scaling in fermion chains with a localization-delocalization transition and inhomogeneous modulations. <i>Physical Review B</i> , 2020, 102, .	3.2	9
33	Sublogarithmic behaviour of the entanglement entropy in fermionic chains. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2019, 2019, 093105.	2.3	7
34	Evaluation of Quantum Annealer Performance via the Massive MIMO Problem. <i>IEEE Access</i> , 2021, 9, 131658-131671.	4.2	7
35	Entanglement entropy of disordered quantum wire junctions. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2018, 2018, 123106.	2.3	6
36	Tensor network models of AdS/qCFT. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 6, 643.	0.0	6

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37	A fermionic de Finetti theorem. <i>Journal of Mathematical Physics</i> , 2017, 58, 122204.	1.1	5
38	Long term measurements from the MÄjtra Gravitational and Geophysical Laboratory. <i>European Physical Journal: Special Topics</i> , 2019, 228, 1693-1743.	2.6	5
39	Probing criticality in quantum spin chains with neural networks. <i>Journal of Physics Complexity</i> , 2020, 1, 03LT01.	2.2	5
40	A Cost-Efficient Approach towards Computational Fluid Dynamics Simulations on Quantum Devices. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2873.	2.5	5
41	On the NP-completeness of the Hartree-Fock method for translationally invariant systems. <i>Journal of Chemical Physics</i> , 2014, 141, 234103.	3.0	4
42	The bilinearâ€“biquadratic model on the complete graph. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 105201.	2.1	4
43	Quantum distance to uncontrollability and quantum speed limits. <i>Physical Review A</i> , 2022, 105, .	2.5	4
44	Universality verification for a set of quantum gates. <i>Physical Review A</i> , 2022, 105, .	2.5	4
45	Short-time behavior of continuous-time quantum walks on graphs. <i>Physical Review A</i> , 2019, 100, .	2.5	3
46	Exploring Embeddings for MIMO Channel Decoding on Quantum Annealers. <i>Infocommunications Journal</i> , 2021, 13, 11-17.	0.8	3
47	Photonic Quantum Policy Learning in OpenAI Gym. , 2021, , .		2
48	Does causal dynamics imply local interactions?. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 6, 748.	0.0	2
49	CLARIFICATION ON THEORETICAL PREDICTIONS FOR GENERAL RELATIVISTIC EFFECTS IN FROZEN SPIN STORAGE RINGS. , 2021, , 133-149.		0
50	Quantum phases of collective SU(3) spin systems with bipartite symmetry. <i>Physical Review B</i> , 2021, 103, .	3.2	0