

# Stephen R Clark

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3388085/publications.pdf>

Version: 2024-02-01

59  
papers

2,707  
citations

172457

29  
h-index

175258

52  
g-index

59  
all docs

59  
docs citations

59  
times ranked

2901  
citing authors

#	ARTICLE	IF	CITATIONS
1	Possible light-induced superconductivity in K3C60 at high temperature. <i>Nature</i> , 2016, 530, 461-464.	27.8	572
2	Quantum interference between charge excitation paths in a solid-state Mott insulator. <i>Nature Physics</i> , 2011, 7, 114-118.	16.7	134
3	Polaron physics in optical lattices. <i>Physical Review A</i> , 2007, 76, .	2.5	128
4	Spatially resolved ultrafast magnetic dynamics initiated at a complex oxide heterointerface. <i>Nature Materials</i> , 2015, 14, 883-888.	27.5	109
5	Thermodynamics of precision in quantum nonequilibrium steady states. <i>Physical Review Research</i> , 2019, 1, .	3.6	104
6	What is a quantum simulator?. <i>EPJ Quantum Technology</i> , 2014, 1, .	6.3	89
7	Efficient generation of graph states for quantum computation. <i>New Journal of Physics</i> , 2005, 7, 124-124.	2.9	85
8	Dynamics of the superfluid to Mott-insulator transition in one dimension. <i>Physical Review A</i> , 2004, 70, .	2.5	73
9	Dephasing enhanced transport in nonequilibrium strongly correlated quantum systems. <i>Physical Review B</i> , 2013, 87, .	3.2	69
10	Dark-State Cooling of Atoms by Superfluid Immersion. <i>Physical Review Letters</i> , 2006, 97, 220403.	7.8	68
11	Dynamics, dephasing and clustering of impurity atoms in Bose-Einstein condensates. <i>New Journal of Physics</i> , 2007, 9, 411-411.	2.9	59
12	Transport of strong-coupling polarons in optical lattices. <i>New Journal of Physics</i> , 2008, 10, 033015.	2.9	59
13	Heat transport in the $X$ spin chain: from ballistic to diffusive regimes and dephasing enhancement. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013, 2013, P07007.	2.3	59
14	Pressure-Dependent Relaxation in the Photoexcited Mott Insulator $F \propto \frac{ET}{\hbar^2}$ Influence of Hopping and Correlations on Quasiparticle Recombination Rates. <i>Physical Review Letters</i> , 2014, 112, 117801.	7.8	58
15	Density Matrix Renormalization Group in the Heisenberg Picture. <i>Physical Review Letters</i> , 2009, 102, 057202.	7.8	52
16	Non-equilibrium many-body effects in driven nonlinear resonator arrays. <i>New Journal of Physics</i> , 2012, 14, 103025.	2.9	52
17	Unifying neural-network quantum states and correlator product states via tensor networks. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 135301.	2.1	50
18	Impurity transport through a strongly interacting bosonic quantum gas. <i>Physical Review A</i> , 2011, 84, .	2.5	45

#	ARTICLE	IF	CITATIONS
19	Tensor-Network Method to Simulate Strongly Interacting Quantum Thermal Machines. Physical Review X, 2020, 10, .	8.9	45
20	<i>Ab initio</i> derivation of Hubbard models for cold atoms in optical lattices. Physical Review A, 2013, 87, .	2.5	44
21	The tensor network theory library. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 093102.	2.3	43
22	Exact matrix product solutions in the Heisenberg picture of an open quantum spin chain. New Journal of Physics, 2010, 12, 025005.	2.9	41
23	Optical Properties of a Vibrationally Modulated Solid State Mott Insulator. Scientific Reports, 2014, 4, 3823.	3.3	40
24	Numerical analysis of coherent many-body currents in a single atom transistor. Physical Review A, 2005, 72, .	2.5	39
25	Repulsively induced photon superbunching in driven resonator arrays. Physical Review A, 2013, 87, .	2.5	36
26	Few-qubit quantum-classical simulation of strongly correlated lattice fermions. EPJ Quantum Technology, 2016, 3, .	6.3	36
27	Breathing oscillations of a trapped impurity in a Bose gas. Europhysics Letters, 2012, 98, 26001.	2.0	34
28	Categorical Tensor Network States. AIP Advances, 2011, 1, .	1.3	33
29	Dynamical simulations of classical stochastic systems using matrix product states. Physical Review E, 2010, 82, 036702.	2.1	32
30	Non-linear quantum-classical scheme to simulate non-equilibrium strongly correlated fermionic many-body dynamics. Scientific Reports, 2016, 6, 32940.	3.3	32
31	Quantifying the Nonclassicality of Operations. Physical Review Letters, 2013, 110, 070502.	7.8	30
32	Signatures of the superfluid to Mott-insulator transition in the excitation spectrum of ultracold atoms. New Journal of Physics, 2006, 8, 160-160.	2.9	29
33	Dissipative dynamics of atomic Hubbard models coupled to a phonon bath: dark state cooling of atoms within a Bloch band of an optical lattice. New Journal of Physics, 2007, 9, 44-44.	2.9	29
34	Dephasing enhanced spin transport in the ergodic phase of a many-body localizable system. Annalen Der Physik, 2017, 529, 1600298.	2.4	29
35	Reentrance and entanglement in the one-dimensional Bose-Hubbard model. Physical Review A, 2012, 86, .	2.5	27
36	Energy Current Rectification and Mobility Edges. Physical Review Letters, 2019, 123, 020603.	7.8	25

#	ARTICLE	IF	CITATIONS
37	Entanglement consumption of instantaneous nonlocal quantum measurements. <i>New Journal of Physics</i> , 2010, 12, 083034.	2.9	22
38	Algebraically contractible topological tensor network states. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 015309.	2.1	21
39	Parallel time-dependent variational principle algorithm for matrix product states. <i>Physical Review B</i> , 2020, 101, .	3.2	20
40	Phonon resonances in atomic currents through Bose-Fermi mixtures in optical lattices. <i>Physical Review A</i> , 2010, 82, .	2.5	18
41	Capturing long range correlations in two-dimensional quantum lattice systems using correlator product states. <i>Physical Review B</i> , 2011, 84, .	3.2	17
42	Ultra-Fast Control of Magnetic Relaxation in a Periodically Driven Hubbard Model. <i>Annalen Der Physik</i> , 2017, 529, 1700024.	2.4	15
43	Generation of twin Fock states via transition from a two-component Mott insulator to a superfluid. <i>Physical Review A</i> , 2007, 75, .	2.5	14
44	Solving search problems by strongly simulating quantum circuits. <i>Scientific Reports</i> , 2013, 3, 1235.	3.3	11
45	Transport enhancement from incoherent coupling between one-dimensional quantum conductors. <i>New Journal of Physics</i> , 2014, 16, 053016.	2.9	11
46	Fast initialization of a high-fidelity quantum register using optical superlattices. <i>New Journal of Physics</i> , 2007, 9, 221-221.	2.9	10
47	Graph state generation with noisy mirror-inverting spin chains. <i>New Journal of Physics</i> , 2007, 9, 202-202.	2.9	10
48	Ground-state phase diagram of the one-dimensional $t\hat{t}^J$ model with pair hopping terms. <i>Physical Review B</i> , 2018, 98, .	3.2	9
49	Hidden order in quantum many-body dynamics of driven-dissipative nonlinear photonic lattices. <i>Physical Review A</i> , 2019, 99, .	2.5	9
50	Investigation of the non-equilibrium state of strongly correlated materials by complementary ultrafast spectroscopy techniques. <i>New Journal of Physics</i> , 2021, 23, 033025.	2.9	7
51	Capturing the reentrant behavior of one-dimensional Bose-Hubbard model. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 51-58.	1.5	6
52	Controllable finite-momenta dynamical quasicondensation in the periodically driven one-dimensional Fermi-Hubbard model. <i>Physical Review A</i> , 2020, 101, .	2.5	5
53	Thermally driven polaron transport in conjugated polymers. <i>Physical Review B</i> , 2022, 105, .	3.2	5
54	Adiabatic melting of two-component Mott-insulator states. <i>Physical Review A</i> , 2008, 77, .	2.5	2

#	ARTICLE	IF	CITATIONS
55	Neural-Network Quantum States for Spin-1 Systems: Spin-Basis and Parameterization Effects on Compactness of Representations. <i>Entropy</i> , 2021, 23, 879.	2.2	2
56	Compact neural-network quantum state representations of Jastrow and stabilizer states. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2021, 54, 405304.	2.1	2
57	Adiabatic evolution of on-site superposition states in a completely-connected optical lattice. <i>Journal of Physics: Conference Series</i> , 2008, 99, 012017.	0.4	1
58	DECOHERENCE OF A QUANTUM MEMORY COUPLED TO A COLLECTIVE SPIN BATH. <i>International Journal of Quantum Information</i> , 2010, 08, 271-294.	1.1	1
59	Efficient Dynamical Simulation of Strongly Correlated One-Dimensional Quantum Systems. <i>Lecture Notes in Computer Science</i> , 2006, , 555-563.	1.3	0