

Matthias Troyer

List of Publications by Year in descending order

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310
papers

28,848
citations

5876

81
h-index

5806

161
g-index

322
all docs

322
docs citations

322
times ranked

16287
citing authors

#	ARTICLE	IF	CITATIONS
1	Prospects of quantum computing for molecular sciences. <i>Materials Theory</i> , 2022, 6, .	2.2	21
2	Toward Quantum Computing for High-Energy Excited States in Molecular Systems: Quantum Phase Estimations of Core-Level States. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 201-210.	2.3	16
3	Quantum computing enhanced computational catalysis. <i>Physical Review Research</i> , 2021, 3, .	1.3	96
4	Automated design of pulse sequences for magnetic resonance fingerprinting using physics-inspired optimization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	16
5	Distributed quantum computing with QMPI. , 2021, , .		17
6	Band Structure Extraction at Hybrid Narrow-Gap Semiconductor-Metal Interfaces. <i>Advanced Science</i> , 2021, 8, 2003087.	5.6	13
7	Embedding Overhead Scaling of Optimization Problems in Quantum Annealing. <i>PRX Quantum</i> , 2021, 2, .	3.5	16
8	Coral Reef Monitoring by Scuba Divers Using Underwater Photogrammetry and Geodetic Surveying. <i>Remote Sensing</i> , 2020, 12, 3036.	1.8	23
9	Quantum programming languages. <i>Nature Reviews Physics</i> , 2020, 2, 709-722.	11.9	42
10	Assertion-based optimization of Quantum programs. , 2020, 4, 1-20.		6
11	Downfolding of many-body Hamiltonians using active-space models: Extension of the sub-system embedding sub-algebras approach to unitary coupled cluster formalisms. <i>Journal of Chemical Physics</i> , 2019, 151, 014107.	1.2	57
12	Uncertain fate of fair sampling in quantum annealing. <i>Physical Review A</i> , 2019, 100, .	1.0	23
13	Spin-Orbit Protection of Induced Superconductivity in Majorana Nanowires. <i>Physical Review Letters</i> , 2019, 122, 187702.	2.9	60
14	Advantages of a modular high-level quantum programming framework. <i>Microprocessors and Microsystems</i> , 2019, 66, 81-89.	1.8	3
15	High resolution topobathymetry using a Pleiades-1 triplet: Moorea Island in 3D. <i>Remote Sensing of Environment</i> , 2018, 208, 109-119.	4.6	25
16	Neural-network quantum state tomography. <i>Nature Physics</i> , 2018, 14, 447-450.	6.5	521
17	Q#. , 2018, , .		148
18	A software methodology for compiling quantum programs. <i>Quantum Science and Technology</i> , 2018, 3, 020501.	2.6	84

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19	Multiferroic Magnetic Spirals Induced by Random Magnetic Exchanges. <i>Physical Review X</i> , 2018, 8, .	2.8	12
20	WannierTools: An open-source software package for novel topological materials. <i>Computer Physics Communications</i> , 2018, 224, 405-416.	3.0	1,557
21	Quantum Algorithm for Spectral Measurement with a Lower Gate Count. <i>Physical Review Letters</i> , 2018, 121, 010501.	2.9	71
22	Very high resolution mapping of coral reef state using airborne bathymetric LiDAR surface-intensity and drone imagery. <i>International Journal of Remote Sensing</i> , 2018, 39, 5676-5688.	1.3	53
23	Density functional theory versus quantum Monte Carlo simulations of Fermi gases in the optical-lattice arena. <i>European Physical Journal B</i> , 2018, 91, 1.	0.6	4
24	Quantum algorithms for electronic structure calculations: Particle-hole Hamiltonian and optimized wave-function expansions. <i>Physical Review A</i> , 2018, 98, .	1.0	214
25	Topological phenomena explored in a programmable quantum simulation. <i>Nature</i> , 2018, 560, 438-439.	13.7	0
26	Automated construction of symmetrized Wannier-like tight-binding models from <i>ab initio</i> calculations. <i>Physical Review Materials</i> , 2018, 2, .	0.9	32
27	Updated core libraries of the ALPS project. <i>Computer Physics Communications</i> , 2017, 213, 235-251.	3.0	71
28	Solving the quantum many-body problem with artificial neural networks. <i>Science</i> , 2017, 355, 602-606.	6.0	1,307
29	Impact of strain on the electronic properties of InAs/GaSb quantum well systems. <i>Physical Review B</i> , 2017, 95, .	1.1	6
30	Scaling analysis and instantons for thermally assisted tunneling and quantum Monte Carlo simulations. <i>Physical Review A</i> , 2017, 95, .	1.0	33
31	Quantum Monte Carlo annealing with multi-spin dynamics. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 053105.	0.9	6
32	Z2Pack: Numerical implementation of hybrid Wannier centers for identifying topological materials. <i>Physical Review B</i> , 2017, 95, .	1.1	322
33	Quantum Monte Carlo tunneling from quantum chemistry to quantum annealing. <i>Physical Review B</i> , 2017, 96, .	1.1	24
34	Nonstoquastic Hamiltonians and quantum annealing of an Ising spin glass. <i>Physical Review B</i> , 2017, 95, .	1.1	69
35	Infinite matrix product states versus infinite projected entangled-pair states on the cylinder: A comparative study. <i>Physical Review B</i> , 2017, 96, .	1.1	5
36	Orbital Contributions to the Electron $\langle \mathbf{g} \rangle$ Factor in Semiconductor Nanowires. <i>Physical Review Letters</i> , 2017, 119, 037701.	2.9	51

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37	Operator locality in the quantum simulation of fermionic models. Physical Review A, 2017, 95, .	1.0	65
38	Entanglement spectroscopy on a quantum computer. Physical Review B, 2017, 96, .	1.1	41
39	Elucidating reaction mechanisms on quantum computers. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7555-7560.	3.3	401
40	High-temperature series expansion for spin-1/2 Heisenberg models. Computer Physics Communications, 2017, 212, 180-188.	3.0	6
41	Assessment of Quantum Annealing for the Construction of Satisfiability Filters. SciPost Physics, 2017, 2, .	1.5	14
42	High Performance Emulation of Quantum Circuits. , 2016, , .		26
43	Topological classification with Z2Pack (Conference Presentation). , 2016, , .		0
44	Experimental signatures of the inverted phase in InAs/GaSb coupled quantum wells. Physical Review B, 2016, 94, .	1.1	33
45	Density redistribution effects in fermionic optical lattices. Physical Review A, 2016, 94, .	1.0	0
46	Simulating social-ecological systems: the Island Digital Ecosystem Avatars (IDEA) consortium. GigaScience, 2016, 5, 14.	3.3	15
47	Thermodynamics of the Hubbard model on stacked honeycomb and square lattices. European Physical Journal B, 2016, 89, 1.	0.6	1
48	Local spin operators for fermion simulations. Physical Review A, 2016, 94, .	1.0	44
49	Hybrid Quantum-Classical Approach to Correlated Materials. Physical Review X, 2016, 6, .	2.8	134
50	Robust Type-II Weyl Semimetal Phase in Transition Metal Diphosphides X		

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55	First-order topological phase transition of the Haldane-Hubbard model. Physical Review B, 2016, 94, .	1.1	33
56	The Quantum Future of Computation. Computer, 2016, 49, 21-30.	1.2	23
57	Effective models of doped quantum ladders of non-Abelian anyons. Physical Review B, 2016, 93, .	1.1	5
58	Smooth gauge and Wannier functions for topological band structures in arbitrary dimensions. Physical Review B, 2016, 93, .	1.1	25
59	Topological origin of the fermion sign problem. Physical Review B, 2016, 93, .	1.1	15
60	Optimizing spin-orbit splittings in InSb Majorana nanowires. Physical Review B, 2016, 93, .	1.1	16
61	Stochastic series expansion simulation of the t - J model. Physical Review B, 2016, 93, .	1.1	23
62	Topological Phase Transitions in the Repulsively Interacting Haldane-Hubbard Model. Physical Review Letters, 2016, 116, 225305.	2.9	72
63	A bespoke single-band Hubbard model material. Physical Review B, 2016, 93, .	1.1	6
64	Publisher's Note: Two-dimensional epitaxial superconductor-semiconductor heterostructures: A platform for topological superconducting networks [Phys. Rev. B 93 , 155402 (2016)]. Physical Review B, 2016, 93, .	1.1	3
65	Training a quantum optimizer. Physical Review A, 2016, 94, .	1.0	63
66	Understanding Quantum Tunneling through Quantum Monte Carlo Simulations. Physical Review Letters, 2016, 117, 180402.	2.9	74
67	Fulde-Ferrell-Larkin-Ovchinnikov pairing as leading instability on the square lattice. Physical Review B, 2016, 94, .	1.1	18
68	Topological Thouless pumping of ultracold fermions. Nature Physics, 2016, 12, 296-300.	6.5	432
69	Topological phases in $\text{InAs}^{1-x}\text{Sb}_x$: from novel topological semimetal to Majorana wire (Conference) Tj ETQq1 1 0.784314 rgBT /Overlo		
70	Progress towards practical quantum variational algorithms. Physical Review A, 2015, 92, .	1.0	428
71	Solving strongly correlated electron models on a quantum computer. Physical Review A, 2015, 92, .	1.0	173
72	Accuracy of downfolding based on the constrained random-phase approximation. Physical Review B, 2015, 91, .	1.1	24

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73	Negative sign problem in continuous-time quantum Monte Carlo: Optimal choice of single-particle basis for impurity problems. <i>Physical Review B</i> , 2015, 92, .	1.1	24
74	Phase Diagram of Pyrochlore Iridates: All-in-All-out Magnetic Ordering and Non-Fermi-Liquid Properties. <i>Physical Review Letters</i> , 2015, 115, 156401.	2.9	65
75	Fidelity Susceptibility Perspective on the Kondo Effect and Impurity Quantum Phase Transitions. <i>Physical Review Letters</i> , 2015, 115, 236601.	2.9	9
76	Phase Diagram of the $\nu = 1/2$ Fractional Quantum Hall Effect: Effects of Landau-Level Mixing and Nonzero Width. <i>Physical Review X</i> , 2015, 5, .	2.8	70
77	Probing for quantum speedup in spin-glass problems with planted solutions. <i>Physical Review A</i> , 2015, 92, .	1.0	117
78	Superfluidity and density order in a bilayer extended Hubbard model. <i>Physical Review B</i> , 2015, 91, .	1.1	16
79	Pair correlations in doped Hubbard ladders. <i>Physical Review B</i> , 2015, 92, .	1.1	53
80	Heavy Tails in the Distribution of Time to Solution for Classical and Quantum Annealing. <i>Physical Review Letters</i> , 2015, 115, 230501.	2.9	35
81	Split Orthogonal Group: A Guiding Principle for Sign-Problem-Free Fermionic Simulations. <i>Physical Review Letters</i> , 2015, 115, 250601.	2.9	55
82	An efficient matrix product operator representation of the quantum chemical Hamiltonian. <i>Journal of Chemical Physics</i> , 2015, 143, 244118.	1.2	127
83	Thermalization of strongly interacting bosons after spontaneous emissions in optical lattices. <i>EPJ Quantum Technology</i> , 2015, 2, .	2.9	10
84	Fidelity Susceptibility Made Simple: A Unified Quantum Monte Carlo Approach. <i>Physical Review X</i> , 2015, 5, .	2.8	51
85	Performance of quantum annealing hardware. <i>Proceedings of SPIE</i> , 2015, , .	0.8	1
86	Optimised simulated annealing for Ising spin glasses. <i>Computer Physics Communications</i> , 2015, 192, 265-271.	3.0	115
87	Reexamining classical and quantum models for the D-Wave One processor. <i>European Physical Journal: Special Topics</i> , 2015, 224, 111-129.	1.2	77
88	Efficient continuous-time quantum Monte Carlo method for the ground state of correlated fermions. <i>Physical Review B</i> , 2015, 91, .	1.1	29
89	Efficient continuous-time quantum Monte Carlo algorithm for fermionic lattice models. <i>Physical Review B</i> , 2015, 91, .	1.1	23
90	Minimizing nonadiabaticities in optical-lattice loading. <i>Physical Review A</i> , 2015, 91, .	1.0	14

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91	The effect of quenched bond disorder on first-order phase transitions. <i>Annals of Physics</i> , 2015, 357, 66-78.	1.0	9
92	Quantum versus classical annealing of Ising spin glasses. <i>Science</i> , 2015, 348, 215-217.	6.0	155
93	From local to global ground states in Ising spin glasses. <i>Physical Review B</i> , 2015, 91, .	1.1	21
94	Type-II Weyl semimetals. <i>Nature</i> , 2015, 527, 495-498.	13.7	1,977
95	Improving quantum algorithms for quantum chemistry. <i>Quantum Information and Computation</i> , 2015, 15, 1-21.	0.1	78
96	Fermionic quantum critical point of spinless fermions on a honeycomb lattice. <i>New Journal of Physics</i> , 2014, 16, 103008.	1.2	94
97	Real time evolution at finite temperatures with operator space matrix product states. <i>New Journal of Physics</i> , 2014, 16, 073007.	1.2	26
98	Hybridization expansion Monte Carlo simulation of multi-orbital quantum impurity problems: matrix product formalism and improved sampling. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P06012.	0.9	19
99	Thermodynamics and Magnetic Properties of the Anisotropic 3D Hubbard Model. <i>Physical Review Letters</i> , 2014, 112, 115301.	2.9	33
100	Seeing Hofstadter's butterfly in atomic Fermi gases. <i>Physical Review A</i> , 2014, 89, .	1.0	7
101	Nonlocal Quantum Fluctuations and Fermionic Superfluidity in the Imbalanced Attractive Hubbard Model. <i>Physical Review Letters</i> , 2014, 113, 185301.	2.9	20
102	Probing the stability of the spin-liquid phases in the Kitaev-Heisenberg model using tensor network algorithms. <i>Physical Review B</i> , 2014, 90, .	1.1	42
103	Critical Temperature of Interacting Bose Gases in Periodic Potentials. <i>Physical Review Letters</i> , 2014, 112, 170402.	2.9	7
104	p-Wave Superfluidity by Spin-Nematic Fermi Surface Deformation. <i>Physical Review Letters</i> , 2014, 113, 195301.	2.9	17
105	Evidence for quantum annealing with more than one hundred qubits. <i>Nature Physics</i> , 2014, 10, 218-224.	6.5	539
106	Ferromagnetism of a Repulsive Atomic Fermi Gas in an Optical Lattice: A Quantum Monte Carlo Study. <i>Physical Review Letters</i> , 2014, 112, 015301.	2.9	37
107	Topological phase transition in the Hofstadter-Hubbard model. <i>Physical Review B</i> , 2014, 90, .	1.1	21
108	Spontaneous emission and thermalization of cold bosons in optical lattices. <i>Physical Review A</i> , 2014, 89, .	1.0	32

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109	Matrix product state applications for the ALPS project. Computer Physics Communications, 2014, 185, 3430-3440.	3.0	76
110	Competing States in the t - J Model: Uniform d -Wave State versus Stripe State. Physical Review Letters, 2014, 113, 110401.	2.9	332
111	Rényi Entanglement Entropy of Interacting Fermions Calculated Using the Continuous-Time Quantum Monte Carlo Method. Physical Review Letters, 2014, 113, 110401.	2.9	41
112	Gate-count estimates for performing quantum chemistry on small quantum computers. Physical Review A, 2014, 90, .	1.0	199
113	Defining and detecting quantum speedup. Science, 2014, 345, 420-424.	6.0	405
114	Double transfer through Dirac points in a tunable honeycomb optical lattice. European Physical Journal: Special Topics, 2013, 217, 121-133.	1.2	35
115	Anyonic quantum spin chains: Spin-1 generalizations and topological stability. Physical Review B, 2013, 87, .	1.1	49
116	Néel temperature and thermodynamics of the half-filled three-dimensional Hubbard model by diagrammatic determinant Monte Carlo. Physical Review B, 2013, 87, .	1.1	48
117	Fermionic and Continuous Time Quantum Monte Carlo. Springer Series in Solid-state Sciences, 2013, , 293-319.	0.3	0
118	Proposal for Direct Measurement of Topological Invariants in Optical Lattices. Physical Review Letters, 2013, 110, 166802.	2.9	64
119	Fibonacci topological order from quantum nets. Physical Review Letters, 2013, 110, 260408.	2.9	11
120	Effect of thermal fluctuations in topological p -wave superconductors. Physical Review B, 2013, 87, .	1.1	10
121	One-dimensional itinerant interacting non-Abelian anyons. Physical Review B, 2013, 87, .	1.1	12
122	Topological Charge Pumping in a One-Dimensional Optical Lattice. Physical Review Letters, 2013, 111, 026802.	2.9	142
123	Supersymmetric multicritical point in a model of lattice fermions. Physical Review B, 2013, 87, .	1.1	25
124	Books [Two books reviewed]. Computing in Science and Engineering, 2013, 15, 8-11.	1.2	0
125	VLI "A Library for High Precision Integer and Polynomial Arithmetic. Lecture Notes in Computer Science, 2013, , 267-278.	1.0	1
126	Bond Disorder Induced Criticality of the Three-Color Ashkin-Teller Model. Physical Review Letters, 2012, 109, 155701.	2.9	12

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127	Three-sublattice order in the SU(3) Heisenberg model on the square and triangular lattice. Physical Review B, 2012, 85, .	1.1	78
128	Strong-disorder renormalization for interacting non-Abelian anyon systems in two dimensions. Physical Review B, 2012, 85, .	1.1	16
129	Galois conjugates of topological phases. Physical Review B, 2012, 85, .	1.1	20
130	Bosonic Superfluid-Insulator Transition in Continuous Space. Physical Review Letters, 2012, 108, 155301.	2.9	29
131	Translation invariance, topology, and protection of criticality in chains of interacting anyons. Physical Review B, 2012, 86, .	1.1	25
132	Multigrid Algorithms for Tensor Network States. Physical Review Letters, 2012, 109, 020604.	2.9	29
133	Fractionalization of Itinerant Anyons in One-Dimensional Chains. Physical Review Letters, 2012, 108, 207201.	2.9	10
134	From the Cooper Problem to Canted Supersolids in Bose-Fermi Mixtures. Physical Review Letters, 2012, 109, 206401.	2.9	21
135	Dipolar dynamics for interacting ultracold fermions in a trapped optical lattice. Physical Review A, 2012, 86, .	1.0	3
136	Density functional theory for atomic Fermi gases. Nature Physics, 2012, 8, 601-605.	6.5	35
137	Magnetic susceptibility of cerium: An LDA $\langle \mathbf{m} \rangle$ DMFT study. Physical Review B, 2012, 85, .	1.1	16
138	Multiorbital Kondo physics of Co in Cu hosts. Physical Review B, 2012, 85, .	1.1	50
139	The ALPS project release 2.0: open source software for strongly correlated systems. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P05001.	0.9	528
140	Stripes in the two-dimensional $\langle \mathbf{m} \rangle$ model with infinite projected entangled-pair states. Physical Review B, 2011, 84, .	1.1	160
141	Simultaneous Dimerization and SU(4) Symmetry Breaking of 4-Color Fermions on the Square Lattice. Physical Review Letters, 2011, 107, 215301.	2.9	95
142	Diagrammatic quantum Monte Carlo solution of the two-dimensional cooperon-fermion model. Physical Review B, 2011, 83, .	1.1	12
143	Continuous-time Monte Carlo methods for quantum impurity models. Reviews of Modern Physics, 2011, 83, 349-404.	16.4	1,185
144	Continuous-time quantum Monte Carlo impurity solvers. Computer Physics Communications, 2011, 182, 1078-1082.	3.0	48

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145	Topological phases: An expedition off lattice. <i>Annals of Physics</i> , 2011, 326, 2108-2137.	1.0	1
146	A Provenance-Based Infrastructure to Support the Life Cycle of Executable Papers. <i>Procedia Computer Science</i> , 2011, 4, 648-657.	1.2	39
147	Two-dimensional quantum liquids from interacting non-Abelian anyons. <i>New Journal of Physics</i> , 2011, 13, 045014.	1.2	41
148	Microscopic models of interacting Yang-Lee anyons. <i>New Journal of Physics</i> , 2011, 13, 045006.	1.2	41
149	Dynamical mean-field theory for bosons. <i>New Journal of Physics</i> , 2011, 13, 075013.	1.2	50
150	Quantum spin ladders of non-Abelian anyons. <i>Physical Review B</i> , 2011, 83, .	1.1	19
151	Implementing global Abelian symmetries in projected entangled-pair state algorithms. <i>Physical Review B</i> , 2011, 83, .	1.1	93
152	Spectral properties of the three-dimensional Hubbard model. <i>Physical Review B</i> , 2011, 83, .	1.1	39
153	Dynamics at and near conformal quantum critical points. <i>Physical Review B</i> , 2011, 83, .	1.1	31
154	Trapped ultracold bosons in periodically modulated lattices. <i>Physical Review A</i> , 2011, 84, .	1.0	8
155	Identifying quantum topological phases through statistical correlation. <i>Physical Review B</i> , 2011, 83, .	1.1	4
156	Thermodynamics of the 3D Hubbard Model on Approaching the Néel Transition. <i>Physical Review Letters</i> , 2011, 106, 030401.	2.9	99
157	Mutual information in classical spin models. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011, 2011, P10011.	0.9	42
158	Measuring the equation of state of trapped ultracold bosonic systems in an optical lattice with <i>in situ</i> density imaging. <i>Physical Review A</i> , 2010, 82, .	1.0	16
159	Continuous-time quantum impurity solvers. <i>Physics Procedia</i> , 2010, 6, 31-34.	1.2	2
160	The role of defects in Supersolid Helium-4. <i>Physics Procedia</i> , 2010, 7, 80-84.	1.2	1
161	Suppression of the critical temperature for superfluidity near the Mott transition. <i>Nature Physics</i> , 2010, 6, 998-1004.	6.5	165
162	Subband engineering even-denominator quantum Hall states. <i>Physical Review B</i> , 2010, 82, .	1.1	10

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163	Distinguishing phases with ansatz wave functions. Physical Review B, 2010, 81, .	1.1	3
164	Simulation of anyons with tensor network algorithms. Physical Review B, 2010, 82, .	1.1	45
165	Diagrammatic Monte Carlo for correlated fermions. Europhysics Letters, 2010, 90, 10004.	0.7	107
166	The Beliaev technique for a weakly interacting Bose gas. New Journal of Physics, 2010, 12, 043010.	1.2	42
167	Optimized broad-histogram simulations for strong first-order phase transitions: droplet transitions in the large- Q Potts model. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P01020.	0.9	9
168	Comment on "Exact Bosonization for an Interacting Fermi Gas in Arbitrary Dimensions": Physical Review Letters, 2010, 105, 159701; author reply 159702.	2.9	1
169	Dynamical Mean Field Solution of the Bose-Hubbard Model. Physical Review Letters, 2010, 105, 096402.	2.9	67
170	Supersolid Phase with Cold Polar Molecules on a Triangular Lattice. Physical Review Letters, 2010, 104, 125302.	2.9	144
171	Quantitative Determination of Temperature in the Approach to Magnetic Order of Ultracold Fermions in an Optical Lattice. Physical Review Letters, 2010, 104, 180401.	2.9	136
172	Itinerant Ferromagnetism of a Repulsive Atomic Fermi Gas: A Quantum Monte Carlo Study. Physical Review Letters, 2010, 105, 030405.	2.9	128
173	Estimating errors reliably in Monte Carlo simulations of the Ehrenfest model. American Journal of Physics, 2010, 78, 150-157.	0.3	39
174	Complete-graph tensor network states: a new fermionic wave function ansatz for molecules. New Journal of Physics, 2010, 12, 103008.	1.2	82
175	Discerning Incompressible and Compressible Phases of Cold Atoms in Optical Lattices. Physical Review Letters, 2009, 102, 135302.	2.9	51
176	Publisher's Note: Collective States of Interacting Anyons, Edge States, and the Nucleation of Topological Liquids [Phys. Rev. Lett.103, 070401 (2009)]. Physical Review Letters, 2009, 103, .	2.9	3
177	Collective States of Interacting Anyons, Edge States, and the Nucleation of Topological Liquids. Physical Review Letters, 2009, 103, 070401.	2.9	80
178	Thermal canting of spin-bond order. Physical Review B, 2009, 79, .	1.1	7
179	ENCORE: An extended contractor renormalization algorithm. Physical Review E, 2009, 79, 046712.	0.8	0
180	Assessing the accuracy of projected entangled-pair states on infinite lattices. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P09006.	0.9	30

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181	Topology-driven quantum phase transitions in time-reversal-invariant anyonic quantum liquids. Nature Physics, 2009, 5, 834-839.	6.5	62
182	Absence of a Direct Superfluid to Mott Insulator Transition in Disordered Bose Systems. Physical Review Letters, 2009, 103, 140402.	2.9	118
183	Phase diagram of the disordered Bose-Hubbard model. Physical Review B, 2009, 80, .	1.1	103
184	Quantum Monte Carlo Simulations. , 2009, , .		5
185	A Classical Picture of the Role of Vacancies and Interstitials in Helium-4. Journal of Low Temperature Physics, 2008, 152, 156-163.	0.6	16
186	Influence of the trap shape on the detection of the superfluid-Mott-insulator transition. Physical Review A, 2008, 78, .	1.0	7
187	Continuous-time auxiliary-field Monte Carlo for quantum impurity models. Europhysics Letters, 2008, 82, 57003.	0.7	215
188	Mixture of bosonic and spin-polarized fermionic atoms in an optical lattice. Physical Review A, 2008, 77, .	1.0	52
189	Expansion of a Quantum Gas Released from an Optical Lattice. Physical Review Letters, 2008, 101, 155303.	2.9	97
190	Simulating Exotic Quantum States of Matter. 2008 22nd International Symposium on High Performance Computing Systems and Applications, 2008, , .	0.0	0
191	Spin Freezing Transition and Non-Fermi-Liquid Self-Energy in a Three-Orbital Model. Physical Review Letters, 2008, 101, 166405.	2.9	214
192	A Short Introduction to Fibonacci Anyon Models. Progress of Theoretical Physics Supplement, 2008, 176, 384-407.	0.2	99
193	Local order and the gapped phase of the Hubbard model: A plaquette dynamical mean-field investigation. Europhysics Letters, 2008, 84, 37009.	0.7	89
194	Temperature changes when adiabatically ramping up an optical lattice. New Journal of Physics, 2008, 10, 065001.	1.2	42
195	Local Stress and Superfluid Properties of Solid He . Physical Review Letters, 2008, 101, 097202.	2.9	72
196	Local Stress and Superfluid Properties of Solid He . Phys. Rev. Lett. 101, 097202 (2008). arXiv:0806.1011	2.9	7
197	Spin-dimer and spin-superfluid phases in $S=1$ spin-1 chains. Physical Review B, 2008, 78, .	1.1	23
198	Publisher's Note: Collective States of Interacting Fibonacci Anyons [Phys. Rev. Lett.101, 050401 (2008)]. Physical Review Letters, 2008, 101, .	2.9	1

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199	Quantum Monte Carlo study of a two-species bosonic Hubbard model. Physical Review B, 2008, 77, .	1.1	10
200	Collective States of Interacting Fibonacci Anyons. Physical Review Letters, 2008, 101, 050401.	2.9	68
201	Deconfined Criticality: Generic First-Order Transition in the SU(2) Symmetry Case. Physical Review Letters, 2008, 101, 050405.	2.9	145
202	Binding of aHe3Impurity to a Screw Dislocation in SolidHe4. Physical Review Letters, 2008, 101, 155302.	2.9	28
203	Local Interactions and Non-Abelian Quantum Loop Gases. Physical Review Letters, 2008, 101, 230401.	2.9	14
204	Critical Temperature Curve in BEC-BCS Crossover. Physical Review Letters, 2008, 101, 090402.	2.9	81
205	Systematic errors in Gaussian quantum Monte Carlo and a systematic study of the symmetry projection method. Physical Review B, 2008, 77, .	1.1	15
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207	Quantum phase transition in a Heisenberg antiferromagnet on a square lattice with strong plaquette interactions. Physical Review B, 2008, 78, .	1.1	28
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