Matthias Troyer

List of Publications by Year
in descending order

310 papers	28,848 citations	5891 81 h-index	5820 161 g-index
322 all docs	322 docs citations	322 times ranked	16287 citing authors

#	Article	IF	Citations
1	Type-II Weyl semimetals. Nature, 2015, 527, 495-498.	13.7	1,977
2	WannierTools: An open-source software package for novel topological materials. Computer Physics Communications, 2018, 224, 405-416.	3.0	1,557
3	Solving the quantum many-body problem with artificial neural networks. Science, 2017, 355, 602-606.	6.0	1,307
4	Continuous-time MonteÂCarlo methods for quantum impurity models. Reviews of Modern Physics, 2011, 83, 349-404.	16.4	1,185
5	Continuous-Time Solver for Quantum Impurity Models. Physical Review Letters, 2006, 97, 076405.	2.9	888
6	Computational Complexity and Fundamental Limitations to Fermionic Quantum Monte Carlo Simulations. Physical Review Letters, 2005, 94, 170201.	2.9	799
7	The ALPS project release 1.3: Open-source software for strongly correlated systems. Journal of Magnetism and Magnetic Materials, 2007, 310, 1187-1193.	1.0	623
8	Evidence for quantum annealing with more than one hundred qubits. Nature Physics, 2014, 10, 218-224.	6.5	539
9	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
10	Neural-network quantum state tomography. Nature Physics, 2018, 14, 447-450.	6.5	521
11	Thermodynamics of spinS=1/2antiferromagnetic uniform and alternating-exchange Heisenberg chains. Physical Review B, 2000, 61, 9558-9606.	1.1	482
12	Topological Thouless pumping of ultracoldÂfermions. Nature Physics, 2016, 12, 296-300.	6.5	432
13	Progress towards practical quantum variational algorithms. Physical Review A, 2015, 92, .	1.0	428
14	Defining and detecting quantum speedup. Science, 2014, 345, 420-424.	6.0	405
15	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
16	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoTe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ A Type-II Weyl Topological Metal. Physical Review Letters, 2016, 117, 056805.	2.9	351
17	display="inline"><mml:mi>t</mml:mi></mml:math>-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>J</mml:mi></mml:math>Model: Uniform<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>d</mml:mi></mml:math>-Wave State versus Stripe State. Physical Review	2.9	332
18	Z2Pack: Numerical implementation of hybrid Wannier centers for identifying topological materials. Physical Review B, 2017, 95, .	1.1	322

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19	Thermodynamics and spin gap of the Heisenberg ladder calculated by the look-ahead Lanczos algorithm. Physical Review B, 1994, 50, 13515-13527.	1.1	316
20	Supersolid Hard-Core Bosons on the Triangular Lattice. Physical Review Letters, 2005, 95, 127205.	2.9	294
21	Mott Domains of Bosons Confined on Optical Lattices. Physical Review Letters, 2002, 89, 117203.	2.9	264
22	Interacting Anyons in Topological Quantum Liquids: The Golden Chain. Physical Review Letters, 2007, 98, 160409.	2.9	250
23	Continuous-time auxiliary-field Monte Carlo for quantum impurity models. Europhysics Letters, 2008, 82, 57003.	0.7	215
24	Spin Freezing Transition and Non-Fermi-Liquid Self-Energy in a Three-Orbital Model. Physical Review Letters, 2008, 101, 166405.	2.9	214
25	Quantum algorithms for electronic structure calculations: Particle-hole Hamiltonian and optimized wave-function expansions. Physical Review A, 2018, 98, .	1.0	214
26	NÃ©el Temperature of Quasi-Low-Dimensional Heisenberg Antiferromagnets. Physical Review Letters, 2005, 94, 217201.	2.9	213
27	ProjectQ: an open source software framework for quantum computing. Quantum - the Open Journal for Quantum Science, 0, 2, 49.	0.0	213
28	Critical Temperature and Thermodynamics of Attractive Fermions at Unitarity. Physical Review Letters, 2006, 96, 160402.	2.9	212
29	Generalized directed loop method for quantum Monte Carlo simulations. Physical Review E, 2005, 71, 036706.	0.8	207
30	Li2VO(Si,Ge)O4, a Prototype of a Two-Dimensional Frustrated Quantum Heisenberg Antiferromagnet. Physical Review Letters, 2000, 85, 1318-1321.	2.9	206
31	Optimized parallel tempering simulations of proteins. Journal of Chemical Physics, 2006, 124, 174903.	1.2	206
32	Feedback-optimized parallel tempering Monte Carlo. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P03018-P03018.	0.9	201
33	Gate-count estimates for performing quantum chemistry on small quantum computers. Physical Review A, 2014, 90, .	1.0	199
34	Supersolids versus Phase Separation in Two-Dimensional Lattice Bosons. Physical Review Letters, 2005, 94, 207202.	2.9	196
35	Quantum Monte Carlo simulations of confined bosonic atoms in optical lattices. Physical Review A, 2004, 70, .	1.0	186
36	Topologically protected quantum bits using Josephson junction arrays. Nature, 2002, 415, 503-506.	13.7	177

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37	Solving strongly correlated electron models on a quantum computer. Physical Review A, 2015, 92, .	1.0	173
38	Breakdown of a Topological Phase: Quantum Phase Transition in a Loop Gas Model with Tension. Physical Review Letters, 2007, 98, 070602.	2.9	168
39	Suppression of the critical temperature for superfluidity near the Mott transition. Nature Physics, 2010, 6, 998-1004.	6.5	165
40	Robust Type-II Weyl Semimetal Phase in Transition Metal Diphosphides<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>X</mml:mi><mml:mrow><mml:msub><mml:mrow><mml:mi		

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55	Itinerant Ferromagnetism of a Repulsive Atomic Fermi Gas: A Quantum MonteÂCarlo Study. Physical Review Letters, 2010, 105, 030405.	2.9	128
56	An efficient matrix product operator representation of the quantum chemical Hamiltonian. Journal of Chemical Physics, 2015, 143, 244118.	1.2	127
57	Finite-Temperature Phase Diagram of Hard-Core Bosons in Two Dimensions. Physical Review Letters, 2002, 88, 167208.	2.9	124
58	Absence of a Direct Superfluid to Mott Insulator Transition in Disordered Bose Systems. Physical Review Letters, 2009, 103, 140402.	2.9	118
59	Probing for quantum speedup in spin-glass problems with planted solutions. Physical Review A, 2015, 92, .	1.0	117
60	Optimised simulated annealing for Ising spin glasses. Computer Physics Communications, 2015, 192, 265-271.	3.0	115
61	Diagrammatic Monte Carlo for correlated fermions. Europhysics Letters, 2010, 90, 10004.	0.7	107
62	Thermodynamics of the One-Dimensional SU(4) Symmetric Spin-Orbital Model. Physical Review Letters, 1999, 82, 835-838.	2.9	106
63	The ALPS Project: Open Source Software for Strongly Correlated Systems. Journal of the Physical Society of Japan, 2005, 74, 30-35.	0.7	103
64	Phase diagram of the disordered Bose-Hubbard model. Physical Review B, 2009, 80, .	1.1	103
65	A Short Introduction to Fibonacci Anyon Models. Progress of Theoretical Physics Supplement, 2008, 176, 384-407.	0.2	99
66	Thermodynamics of the 3D Hubbard Model on Approaching the NÃ©el Transition. Physical Review Letters, 2011, 106, 030401.	2.9	99
67	Flat Histogram Methods for Quantum Systems: Algorithms to Overcome Tunneling Problems and Calculate the Free Energy. Physical Review Letters, 2003, 90, 120201.	2.9	98
68	Interacting Classical Dimers on the Square Lattice. Physical Review Letters, 2005, 94, 235702.	2.9	97
69	Expansion of a Quantum Gas Released from an Optical Lattice. Physical Review Letters, 2008, 101, 155303.	2.9	97
70	Quantum computing enhanced computational catalysis. Physical Review Research, 2021, 3, .	1.3	96
71	Simultaneous Dimerization and SU(4) Symmetry Breaking of 4-Color Fermions on the Square Lattice. Physical Review Letters, 2011, 107, 215301.	2.9	95
72	Parallel Object Oriented Monte Carlo Simulations. Lecture Notes in Computer Science, 1998, , 191-198.	1.0	95

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73	Exchange Interactions and Magnetic Properties of the Layered VanadatesCaV2O5,MgV2O5,CaV3O7, andCaV4O9. Physical Review Letters, 1999, 83, 1387-1390.	2.9	94
74	Fermionic quantum critical point of spinless fermions on a honeycomb lattice. New Journal of Physics, 2014, 16, 103008.	1.2	94
75	Accessing the dynamics of large many-particle systems using the stochastic series expansion. Physical Review E, 2001, 64, 066701.	0.8	93
76	Implementing global Abelian symmetries in projected entangled-pair state algorithms. Physical Review B, 2011, 83, .	1.1	93
77	NÃ©el and Spin-Peierls Ground States of Two-DimensionalSU(N)Quantum Antiferromagnets. Physical Review Letters, 2003, 90, 117203.	2.9	91
78	Phase Diagram and Critical Exponents of a Dissipative Ising Spin Chain in a Transverse Magnetic Field. Physical Review Letters, 2005, 94, 047201.	2.9	91
79	Deconfined criticality, runaway flow in the two-component scalar electrodynamics and weak first-order superfluid-solid transitions. Annals of Physics, 2006, 321, 1602-1621.	1.0	89
80	Local order and the gapped phase of the Hubbard model: A plaquette dynamical mean-field investigation. Europhysics Letters, 2008, 84, 37009.	0.7	89
81	Topological Phases in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>InAs</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math> From Novel Topological Semimetal to Majorana Wire. Physical Review Letters, 2016, 117, 076403.	2.9	89
82	The Fermiâ€“Hubbard model at unitarity. New Journal of Physics, 2006, 8, 153-153.	1.2	84
83	A software methodology for compiling quantum programs. Quantum Science and Technology, 2018, 3, 020501.	2.6	84
84	d-Wave Resonating Valence Bond States of Fermionic Atoms in Optical Lattices. Physical Review Letters, 2006, 96, 250402.	2.9	83
85	Complete-graph tensor network states: a new fermionic wave function ansatz for molecules. New Journal of Physics, 2010, 12, 103008.	1.2	82
86	Phase Diagram of Bose-Fermi Mixtures in One-Dimensional Optical Lattices. Physical Review Letters, 2006, 96, 190402.	2.9	81
87	Critical Temperature Curve in BEC-BCS Crossover. Physical Review Letters, 2008, 101, 090402.	2.9	81
88	Collective States of Interacting Anyons, Edge States, and the Nucleation of Topological Liquids. Physical Review Letters, 2009, 103, 070401.	2.9	80
89	Three-sublattice order in the SU(3) Heisenberg model on the square and triangular lattice. Physical Review B, 2012, 85, .	1.1	78
90	Improving quantum algorithms for quantum chemistry. Quantum Information and Computation, 2015, 15, 1-21.	0.1	78

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91	Universal Conductance of Nanowires near the Superconductor-Metal Quantum Transition. Physical Review Letters, 2004, 92, 237003.	2.9	77
92	Reexamining classical and quantum models for the D-Wave One processor. European Physical Journal: Special Topics, 2015, 224, 111-129.	1.2	77
93	Matrix product state applications for the ALPS project. Computer Physics Communications, 2014, 185, 3430-3440.	3.0	76
94	Two-Step Restoration of SU(2) Symmetry in a Frustrated Ring-Exchange Magnet. Physical Review Letters, 2005, 95, 137206.	2.9	75
95	Phase diagram of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mmultiscripts><mml:mtext>H</mml:mtext><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts><mml:mtext>e</mml:mtext></mml:mrow></mml:math>adsorbed on graphite. Physical Review B, 2008, 78, .	1.1	74
96	Understanding Quantum Tunneling through Quantum MonteÂCarlo Simulations. Physical Review Letters, 2016, 117, 180402.	2.9	74
97	Singlet stripe phases in the planart-Jmodel. Physical Review B, 1995, 51, 16456-16459.	1.1	72
98	Local Stress and Superfluid Properties of Solid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmultiscripts><mml:mi>He</mml:mi><mml:mprescripts /><mml:none /><mml:mn>4</mml:mn></mml:mmultiscripts></mml:math>. Physical Review Letters, 2008, 101, 097202.	2.9	72
99	Topological Phase Transitions in the Repulsively Interacting Haldane-Hubbard Model. Physical Review Letters, 2016, 116, 225305.	2.9	72
100	Susceptibility and low-temperature thermodynamics of spin-Â½ Heisenberg ladders. Physical Review B, 1996, 54, R3714-R3717.	1.1	71
101	Updated core libraries of the ALPS project. Computer Physics Communications, 2017, 213, 235-251.	3.0	71
102	Quantum Algorithm for Spectral Measurement with a Lower Gate Count. Physical Review Letters, 2018, 121, 010501.	2.9	71
103	Critical Exponents of the Quantum Phase Transition in a Planar Antiferromagnet. Journal of the Physical Society of Japan, 1997, 66, 2957-2960.	0.7	70
104	Phase Diagram of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î½</mml:mi><mml:mo>=</mml:mo><mml:mn>5</mml:mn><mml:mo stretchy="false">/</mml:mo><mml:mn>2</mml:mn></mml:math>Fractional Quantum Hall Effect: Effects of Landau-Level Mixing and Nonzero Width. Physical Review X, 2015, 5, .	2.8	70
105	Nearly critical ground state ofLaCuO2.5. Physical Review B, 1997, 55, R6117-R6120.	1.1	69
106	Nonstoquastic Hamiltonians and quantum annealing of an Ising spin glass. Physical Review B, 2017, 95, .	1.1	69
107	Collective States of Interacting Fibonacci Anyons. Physical Review Letters, 2008, 101, 050401.	2.9	68
108	Dynamical Mean Field Solution of the Bose-Hubbard Model. Physical Review Letters, 2010, 105, 096402.	2.9	67

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109	Phase Diagram of Pyrochlore Iridates: All-inâ€“All-out Magnetic Ordering and Non-Fermi-Liquid Properties. Physical Review Letters, 2015, 115, 156401.	2.9	65
110	Operator locality in the quantum simulation of fermionic models. Physical Review A, 2017, 95, .	1.0	65
111	Proposal for Direct Measurement of Topological Invariants in Optical Lattices. Physical Review Letters, 2013, 110, 166802.	2.9	64
112	Broken Time-Reversal Symmetry in Strongly Correlated Ladder Structures. Physical Review Letters, 2003, 90, 186401.	2.9	63
113	Training a quantum optimizer. Physical Review A, 2016, 94, .	1.0	63
114	Topology-driven quantum phase transitions in time-reversal-invariant anyonic quantum liquids. Nature Physics, 2009, 5, 834-839.	6.5	62
115	Spin-Orbit Protection of Induced Superconductivity in Majorana Nanowires. Physical Review Letters, 2019, 122, 187702.	2.9	60
116	Performance analysis of continuous-time solvers for quantum impurity models. Physical Review B, 2007, 76, .	1.1	57
117	Downfolding of many-body Hamiltonians using active-space models: Extension of the sub-system embedding sub-algebras approach to unitary coupled cluster formalisms. Journal of Chemical Physics, 2019, 151, 014107.	1.2	57
118	Split Orthogonal Group: A Guiding Principle for Sign-Problem-Free Fermionic Simulations. Physical Review Letters, 2015, 115, 250601.	2.9	55
119	Ferromagnetism of the one-dimensional Kondo-lattice model: A quantum Monte Carlo study. Physical Review B, 1993, 47, 2886-2889.	1.1	54
120	Pair correlations in doped Hubbard ladders. Physical Review B, 2015, 92, .	1.1	53
121	Very high resolution mapping of coral reef state using airborne bathymetric LiDAR surface-intensity and drone imagery. International Journal of Remote Sensing, 2018, 39, 5676-5688.	1.3	53
122	Mixture of bosonic and spin-polarized fermionic atoms in an optical lattice. Physical Review A, 2008, 77, .	1.0	52
123	Discerning Incompressible and Compressible Phases of Cold Atoms in Optical Lattices. Physical Review Letters, 2009, 102, 135302.	2.9	51
124	Fidelity Susceptibility Made Simple: A Unified Quantum MonteÂCarlo Approach. Physical Review X, 2015, 5, .	2.8	51
125	Orbital Contributions to the Electron <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>g</mml:mi></mml:mrow></mml:math> Factor in Semiconductor Nanowires. Physical Review Letters, 2017, 119, 037701.	2.9	51
126	Dynamical mean-field theory for bosons. New Journal of Physics, 2011, 13, 075013.	1.2	50

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127	Multiorbital Kondo physics of Co in Cu hosts. Physical Review B, 2012, 85, .	1.1	50
128	Anyonic quantum spin chains: Spin-1 generalizations and topological stability. Physical Review B, 2013, 87, .	1.1	49
129	Continuous-time quantum Monte Carlo impurity solvers. Computer Physics Communications, 2011, 182, 1078-1082.	3.0	48
130	NÃ©el temperature and thermodynamics of the half-filled three-dimensional Hubbard model by diagrammatic determinant Monte Carlo. Physical Review B, 2013, 87, .	1.1	48
131	Symmetry breaking regime in the nonlinear Hartree equation. Journal of Mathematical Physics, 2002, 43, 3879-3891.	0.5	46
132	Simulation of anyons with tensor network algorithms. Physical Review B, 2010, 82, .	1.1	45
133	Local spin operators for fermion simulations. Physical Review A, 2016, 94, .	1.0	44
134	The Two-DimensionalS=1Quantum Heisenberg Antiferromagnet at Finite Temperatures. Journal of the Physical Society of Japan, 1998, 67, 1130-1133.	0.7	43
135	Temperature changes when adiabatically ramping up an optical lattice. New Journal of Physics, 2008, 10, 065001.	1.2	42
136	The Beliaev technique for a weakly interacting Bose gas. New Journal of Physics, 2010, 12, 043010.	1.2	42
137	Mutual information in classical spin models. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P10011.	0.9	42
138	Probing the stability of the spin-liquid phases in the Kitaev-Heisenberg model using tensor network algorithms. Physical Review B, 2014, 90, .	1.1	42
139	Quantum programming languages. Nature Reviews Physics, 2020, 2, 709-722.	11.9	42
140	Two-dimensional quantum liquids from interacting non-Abelian anyons. New Journal of Physics, 2011, 13, 045014.	1.2	41
141	Microscopic models of interacting Yangâ€“Lee anyons. New Journal of Physics, 2011, 13, 045006.	1.2	41
142	Renyi Entanglement Entropy of Interacting Fermions Calculated Using the Continuous-Time Quantum MonteÂCarlo Method. Physical Review Letters, 2014, 113, 110401.	2.9	41
143	Entanglement spectroscopy on a quantum computer. Physical Review B, 2017, 96, .	1.1	41
144	Estimating errors reliably in Monte Carlo simulations of the Ehrenfest model. American Journal of Physics, 2010, 78, 150-157.	0.3	39

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145	A Provenance-Based Infrastructure to Support the Life Cycle of Executable Papers. Procedia Computer Science, 2011, 4, 648-657.	1.2	39
146	Spectral properties of the three-dimensional Hubbard model. Physical Review B, 2011, 83, .	1.1	39
147	Dimer-Quadrupolar Quantum Phase Transition in the Quasi-One-Dimensional Heisenberg Model with Biquadratic Interaction. Journal of the Physical Society of Japan, 2007, 76, 013703.	0.7	38
148	Ferromagnetism of a Repulsive Atomic Fermi Gas in an Optical Lattice: A Quantum MonteÂCarlo Study. Physical Review Letters, 2014, 112, 015301.	2.9	37
149	Quantum Spin Chains with Site Dissipation. Journal of the Physical Society of Japan, 2005, 74, 67-70.	0.7	36
150	Quantum spin chains in a magnetic field. Physical Review B, 1999, 59, 1162-1167.	1.1	35
151	Density functional theory for atomic Fermi gases. Nature Physics, 2012, 8, 601-605.	6.5	35
152	Double transfer through Dirac points in a tunable honeycomb optical lattice. European Physical Journal: Special Topics, 2013, 217, 121-133.	1.2	35
153	Heavy Tails in the Distribution of Time to Solution for Classical and Quantum Annealing. Physical Review Letters, 2015, 115, 230501.	2.9	35
154	Thermodynamics and Magnetic Properties of the Anisotropic 3D Hubbard Model. Physical Review Letters, 2014, 112, 115301.	2.9	33
155	Experimental signatures of the inverted phase in InAs/GaSb coupled quantum wells. Physical Review B, 2016, 94, .	1.1	33
156	First-order topological phase transition of the Haldane-Hubbard model. Physical Review B, 2016, 94, .	1.1	33
157	Scaling analysis and instantons for thermally assisted tunneling and quantum Monte Carlo simulations. Physical Review A, 2017, 95, .	1.0	33
158	Spontaneous emission and thermalization of cold bosons in optical lattices. Physical Review A, 2014, 89, .	1.0	32
159	Automated construction of symmetrized Wannier-like tight-binding models from ab initio calculations. Physical Review Materials, 2018, 2, .	0.9	32
160	Universal Critical Temperature for Kosterlitz-Thouless Transitions in Bilayer Quantum Magnets. Physical Review Letters, 1998, 81, 5418-5421.	2.9	31
161	Dynamics at and near conformal quantum critical points. Physical Review B, 2011, 83, .	1.1	31
162	Spin Orthogonality Catastrophe in Two-Dimensional Antiferromagnets and Superconductors. Physical Review Letters, 2001, 86, 2617-2620.	2.9	30

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163	Assessing the accuracy of projected entangled-pair states on infinite lattices. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P09006.	0.9	30
164	Bosonic Superfluid-Insulator Transition in Continuous Space. Physical Review Letters, 2012, 108, 155301.	2.9	29
165	Multigrid Algorithms for Tensor Network States. Physical Review Letters, 2012, 109, 020604.	2.9	29
166	Efficient continuous-time quantum Monte Carlo method for the ground state of correlated fermions. Physical Review B, 2015, 91, .	1.1	29
167	Efficient Quantum Walk Circuits for Metropolis-Hastings Algorithm. Quantum - the Open Journal for Quantum Science, 0, 4, 287.	0.0	29
168	Spin gap and superconductivity in the one-dimensionalt-Jmodel with Coulomb repulsion. Physical Review B, 1993, 48, 4002-4013.	1.1	28
169	Quantum Monte Carlo Simulation of the Trellis Lattice Heisenberg Model for SrCu 2O 3 and CaV 2O 5. Journal of the Physical Society of Japan, 1998, 67, 3918-3923.	0.7	28
170	Binding of aHe3Impurity to a Screw Dislocation in SolidHe4. Physical Review Letters, 2008, 101, 155302.	2.9	28
171	Quantum phase transition in a Heisenberg antiferromagnet on a square lattice with strong plaquette interactions. Physical Review B, 2008, 78, .	1.1	28
172	Effect of the three-site hopping term on thet-Jmodel. Physical Review B, 1995, 52, 629-636.	1.1	27
173	Bosonic model of hole pairs. Physical Review B, 2001, 63, .	1.1	27
174	Simulations of ultracold bosonic atoms in optical lattices with anharmonic traps. Physical Review A, 2006, 73, .	1.0	27
175	Susceptibilities of Sr(Cu1-xZnx)2O3Studied by Quantum Monte Carlo Simulation. Journal of the Physical Society of Japan, 1997, 66, 2580-2583.	0.7	26
176	Real time evolution at finite temperatures with operator space matrix product states. New Journal of Physics, 2014, 16, 073007.	1.2	26
177	High Performance Emulation of Quantum Circuits. , 2016, , .		26
178	Enigmatic 12/5 fractional quantum Hall effect. Physical Review B, 2016, 94, .	1.1	26
179	Translation invariance, topology, and protection of criticality in chains of interacting anyons. Physical Review B, 2012, 86, .	1.1	25
180	Supersymmetric multicritical point in a model of lattice fermions. Physical Review B, 2013, 87, .	1.1	25

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181	Smooth gauge and Wannier functions for topological band structures in arbitrary dimensions. Physical Review B, 2016, 93, .	1.1	25
182	High resolution topobathymetry using a Pleiades-1 triplet: Moorea Island in 3D. Remote Sensing of Environment, 2018, 208, 109-119.	4.6	25
183	Elementary Excitations of the Symmetric Spin-Orbital Model: TheXYLimit. Physical Review Letters, 1999, 82, 3697-3700.	2.9	24
184	Efficient Simulation of Resistively Shunted Josephson Junctions. Physical Review Letters, 2005, 95, 060201.	2.9	24
185	Accuracy of downfolding based on the constrained random-phase approximation. Physical Review B, 2015, 91, .	1.1	24
186	Negative sign problem in continuous-time quantum Monte Carlo: Optimal choice of single-particle basis for impurity problems. Physical Review B, 2015, 92, .	1.1	24
187	Quantum Monte Carlo tunneling from quantum chemistry to quantum annealing. Physical Review B, 2017, 96, .	1.1	24
188	Mechanisms for spin supersolidity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi><mml:mo>=</mml:mo><mml:mstyle scriptlevel="1"><mml:mfrac bevelled="false"><mml:mn>1</mml:mn><mml:mn>2</mml:mn></mml:mfrac></mml:mstyle></mml:mrow></mml:math>spin-dimer antiferromagnets. Physical Review B, 2008, 78, .	1.1	23
189	Efficient continuous-time quantum Monte Carlo algorithm for fermionic lattice models. Physical Review B, 2015, 91, .	1.1	23
190	The Quantum Future of Computation. Computer, 2016, 49, 21-30.	1.2	23
191	Stochastic series expansion simulation of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>t</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>V</mml:mi> Physical Review B, 2016, 93, .	1.1	23
192	Uncertain fate of fair sampling in quantum annealing. Physical Review A, 2019, 100, .	1.0	23
193	Coral Reef Monitoring by Scuba Divers Using Underwater Photogrammetry and Geodetic Surveying. Remote Sensing, 2020, 12, 3036.	1.8	23
194	Thermodynamic Properties of the One-Dimensional Kondo Insulators Studied by the Density Matrix Renormalization Group Method. Journal of the Physical Society of Japan, 1998, 67, 1086-1089.	0.7	21
195	Melting of Bosonic Stripes. Physical Review Letters, 2004, 93, 067003.	2.9	21
196	Dynamics of the Wangâ€“Landau algorithm and complexity of rare events for the three-dimensional bimodal Ising spin glass. Journal of Statistical Mechanics: Theory and Experiment, 2004, 2004, P07008.	0.9	21
197	From the Cooper Problem to Canted Supersolids in Bose-Fermi Mixtures. Physical Review Letters, 2012, 109, 206401.	2.9	21
198	Topological phase transition in the Hofstadter-Hubbard model. Physical Review B, 2014, 90, .	1.1	21

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199	From local to global ground states in Ising spin glasses. Physical Review B, 2015, 91, .	1.1	21
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