

Juan Ignacio Cirac Sasturáin

List of Publications by Year in descending order

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590
papers

80,549
citations

429

128
h-index

429

270
g-index

599
all docs

599
docs citations

599
times ranked

20838
citing authors

#	ARTICLE	IF	CITATIONS
1	Cold Bosonic Atoms in Optical Lattices. <i>Physical Review Letters</i> , 1998, 81, 3108-3111.	7.8	3,187
2	Quantum Computations with Cold Trapped Ions. <i>Physical Review Letters</i> , 1995, 74, 4091-4094.	7.8	3,145
3	Long-distance quantum communication with atomic ensembles and linear optics. <i>Nature</i> , 2001, 414, 413-418.	35.3	2,962
4	Three qubits can be entangled in two inequivalent ways. <i>Physical Review A</i> , 2000, 62, .	2.5	2,666
5	Quantum Repeaters: The Role of Imperfect Local Operations in Quantum Communication. <i>Physical Review Letters</i> , 1998, 81, 5932-5935.	7.8	2,619
6	Quantum State Transfer and Entanglement Distribution among Distant Nodes in a Quantum Network. <i>Physical Review Letters</i> , 1997, 78, 3221-3224.	7.8	1,889
7	Inseparability Criterion for Continuous Variable Systems. <i>Physical Review Letters</i> , 2000, 84, 2722-2725.	7.8	1,747
8	Machine learning and the physical sciences. <i>Reviews of Modern Physics</i> , 2019, 91, .	45.4	1,414
9	Tonksâ€“Girardeau gas of ultracold atoms in an optical lattice. <i>Nature</i> , 2004, 429, 277-281.	35.3	1,404
10	Dipole Blockade and Quantum Information Processing in Mesoscopic Atomic Ensembles. <i>Physical Review Letters</i> , 2001, 87, 037901.	7.8	1,329
11	Fast Quantum Gates for Neutral Atoms. <i>Physical Review Letters</i> , 2000, 85, 2208-2211.	7.8	1,237
12	Quantum computation and quantum-state engineering driven by dissipation. <i>Nature Physics</i> , 2009, 5, 633-636.	11.5	1,155
13	Many-particle entanglement with Boseâ€“Einstein condensates. <i>Nature</i> , 2001, 409, 63-66.	35.3	826
14	Improvement of Frequency Standards with Quantum Entanglement. <i>Physical Review Letters</i> , 1997, 79, 3865-3868.	7.8	807
15	Matrix Product Density Operators: Simulation of Finite-Temperature and Dissipative Systems. <i>Physical Review Letters</i> , 2004, 93, 207204.	7.8	779
16	Experimental demonstration of quantum memory for light. <i>Nature</i> , 2004, 432, 482-486.	35.3	734
17	Decoherence, Continuous Observation, and Quantum Computing: A Cavity QED Model. <i>Physical Review Letters</i> , 1995, 75, 3788-3791.	7.8	729
18	Effective Quantum Spin Systems with Trapped Ions. <i>Physical Review Letters</i> , 2004, 92, 207901.	7.8	727

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19	Entanglement of Atoms via Cold Controlled Collisions. <i>Physical Review Letters</i> , 1999, 82, 1975-1978.	7.8	715
20	Quantum teleportation between light and matter. <i>Nature</i> , 2006, 443, 557-560.	35.3	685
21	Goals and opportunities in quantum simulation. <i>Nature Physics</i> , 2012, 8, 264-266.	11.5	676
22	Geometric Manipulation of Trapped Ions for Quantum Computation. <i>Science</i> , 2001, 292, 1695-1697.	19.6	654
23	Quantum Reservoir Engineering with Laser Cooled Trapped Ions. <i>Physical Review Letters</i> , 1996, 77, 4728-4731.	7.8	632
24	Majorana Fermions in Equilibrium and in Driven Cold-Atom Quantum Wires. <i>Physical Review Letters</i> , 2011, 106, 220402.	7.8	629
25	Quantum repeaters based on entanglement purification. <i>Physical Review A</i> , 1999, 59, 169-181.	2.5	588
26	Sonic Analog of Gravitational Black Holes in Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2000, 85, 4643-4647.	7.8	561
27	Complete Characterization of a Quantum Process: The Two-Bit Quantum Gate. <i>Physical Review Letters</i> , 1997, 78, 390-393.	7.8	556
28	Optimization of entanglement witnesses. <i>Physical Review A</i> , 2000, 62, .	2.5	553
29	Classifying quantum phases using matrix product states and projected entangled pair states. <i>Physical Review B</i> , 2011, 84, .	3.2	545
30	Time-Dependent Variational Principle for Quantum Lattices. <i>Physical Review Letters</i> , 2011, 107, 070601.	7.8	508
31	Matrix product states represent ground states faithfully. <i>Physical Review B</i> , 2006, 73, .	3.2	505
32	Creation of entangled states of distant atoms by interference. <i>Physical Review A</i> , 1999, 59, 1025-1033.	2.5	494
33	Assessing Non-Markovian Quantum Dynamics. <i>Physical Review Letters</i> , 2008, 101, 150402.	7.8	493
34	Area Laws in Quantum Systems: Mutual Information and Correlations. <i>Physical Review Letters</i> , 2008, 100, 070502.	7.8	480
35	Entanglement Generated by Dissipation and Steady State Entanglement of Two Macroscopic Objects. <i>Physical Review Letters</i> , 2011, 107, 080503.	7.8	475
36	Distributed quantum computation over noisy channels. <i>Physical Review A</i> , 1999, 59, 4249-4254.	2.5	469

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37	Characterization of Gaussian operations and distillation of Gaussian states. <i>Physical Review A</i> , 2002, 66, .	2.5	462
38	Density Matrix Renormalization Group and Periodic Boundary Conditions: A Quantum Information Perspective. <i>Physical Review Letters</i> , 2004, 93, 227205.	7.8	461
39	A scalable quantum computer with ions in an array of microtraps. <i>Nature</i> , 2000, 404, 579-581.	35.3	458
40	Criticality, the Area Law, and the Computational Power of Projected Entangled Pair States. <i>Physical Review Letters</i> , 2006, 96, 220601.	7.8	444
41	Classical Simulation of Infinite-Size Quantum Lattice Systems in Two Spatial Dimensions. <i>Physical Review Letters</i> , 2008, 101, 250602.	7.8	442
42	High-Temperature Superfluidity of Fermionic Atoms in Optical Lattices. <i>Physical Review Letters</i> , 2002, 89, 220407.	7.8	399
43	Large Quantum Superpositions and Interference of Massive Nanometer-Sized Objects. <i>Physical Review Letters</i> , 2011, 107, 020405.	7.8	386
44	Entanglement versus Correlations in Spin Systems. <i>Physical Review Letters</i> , 2004, 92, 027901.	7.8	382
45	Quantum superposition states of Bose-Einstein condensates. <i>Physical Review A</i> , 1998, 57, 1208-1218.	2.5	377
46	Toward quantum superposition of living organisms. <i>New Journal of Physics</i> , 2010, 12, 033015.	2.9	371
47	Low Energy Excitations of a Bose-Einstein Condensate: A Time-Dependent Variational Analysis. <i>Physical Review Letters</i> , 1996, 77, 5320-5323.	7.8	356
48	Dynamics of Bose-Einstein condensates: Variational solutions of the Gross-Pitaevskii equations. <i>Physical Review A</i> , 1997, 56, 1424-1432.	2.5	334
49	Quantum correlations in two-fermion systems. <i>Physical Review A</i> , 2001, 64, .	2.5	329
50	Strong Dissipation Inhibits Losses and Induces Correlations in Cold Molecular Gases. <i>Science</i> , 2008, 320, 1329-1331.	19.6	329
51	Quantum simulations of lattice gauge theories using ultracold atoms in optical lattices. <i>Reports on Progress in Physics</i> , 2016, 79, 014401.	19.9	325
52	Optimal creation of entanglement using a two-qubit gate. <i>Physical Review A</i> , 2001, 63, .	2.5	322
53	Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 504004.	2.1	320
54	Diverging Entanglement Length in Gapped Quantum Spin Systems. <i>Physical Review Letters</i> , 2004, 92, 087201.	7.8	315

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55	Simulating lattice gauge theories within quantum technologies. European Physical Journal D, 2020, 74, 1.	1.3	315
56	de Finetti Representation Theorem for Infinite-Dimensional Quantum Systems and Applications to Quantum Cryptography. Physical Review Letters, 2009, 102, 110504.	7.8	292
57	Matrix product states and projected entangled pair states: Concepts, symmetries, theorems. Reviews of Modern Physics, 2021, 93, .	45.4	285
58	Quantum information processing and communication. European Physical Journal D, 2005, 36, 203-228.	1.3	280
59	Quantum Communication between Atomic Ensembles Using Coherent Light. Physical Review Letters, 2000, 85, 5643-5646.	7.8	268
60	The 2019 surface acoustic waves roadmap. Journal Physics D: Applied Physics, 2019, 52, 353001.	2.9	268
61	Entropy Scaling and Simulability by Matrix Product States. Physical Review Letters, 2008, 100, 030504.	7.8	266
62	Strong and Weak Thermalization of Infinite Nonintegrable Quantum Systems. Physical Review Letters, 2011, 106, 050405.	7.8	265
63	Valence-bond states for quantum computation. Physical Review A, 2004, 70, .	2.5	261
64	â€ˆâ€ˆDarkâ€™â€™ squeezed states of the motion of a trapped ion. Physical Review Letters, 1993, 70, 556-559.	7.8	257
65	Entanglement of Formation for Symmetric Gaussian States. Physical Review Letters, 2003, 91, 107901.	7.8	255
66	Dissipative phase transition in a central spin system. Physical Review A, 2012, 86, .	2.5	255
67	Laser cooling of trapped ions in a standing wave. Physical Review A, 1992, 46, 2668-2681.	2.5	254
68	Subwavelength vacuum lattices and atomâ€™atom interactions in two-dimensional photonic crystals. Nature Photonics, 2015, 9, 320-325.	22.6	251
69	Extremality of Gaussian Quantum States. Physical Review Letters, 2006, 96, 080502.	7.8	245
70	Separability and Distillability of Multiparticle Quantum Systems. Physical Review Letters, 1999, 83, 3562-3565.	7.8	242
71	Classification of multiqubit mixed states: Separability and distillability properties. Physical Review A, 2000, 61, .	2.5	241
72	Matrix product operator representations. New Journal of Physics, 2010, 12, 025012.	2.9	239

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73	PEPS as ground states: Degeneracy and topology. <i>Annals of Physics</i> , 2010, 325, 2153-2192.	2.8	237
74	Dividing Quantum Channels. <i>Communications in Mathematical Physics</i> , 2008, 279, 147-168.	2.2	231
75	Entanglement spectrum and boundary theories with projected entangled-pair states. <i>Physical Review B</i> , 2011, 83, .	3.2	230
76	Speed Optimized Two-Qubit Gates with Laser Coherent Control Techniques for Ion Trap Quantum Computing. <i>Physical Review Letters</i> , 2003, 91, 157901.	7.8	228
77	Preparation of Fock states by observation of quantum jumps in an ion trap. <i>Physical Review Letters</i> , 1993, 70, 762-765.	7.8	226
78	Quantum memory for nonstationary light fields based on controlled reversible inhomogeneous broadening. <i>Physical Review A</i> , 2006, 73, .	2.5	218
79	Sonic black holes in dilute Bose-Einstein condensates. <i>Physical Review A</i> , 2001, 63, .	2.5	217
80	Many-particle entanglement in two-component Bose-Einstein condensates. <i>Physical Review A</i> , 2003, 67, .	2.5	217
81	Sequential Generation of Entangled Multiqubit States. <i>Physical Review Letters</i> , 2005, 95, 110503.	7.8	214
82	12-Anyons in Small Atomic Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2001, 87, 010402.	7.8	211
83	Ideal Quantum Communication over Noisy Channels: A Quantum Optical Implementation. <i>Physical Review Letters</i> , 1997, 78, 4293-4296.	7.8	208
84	Variational study of hard-core bosons in a two-dimensional optical lattice using projected entangled pair states. <i>Physical Review A</i> , 2007, 75, .	2.5	207
85	Discrete Entanglement Distribution with Squeezed Light. <i>Physical Review Letters</i> , 2004, 92, 013602.	7.8	205
86	Implementation of Spin Hamiltonians in Optical Lattices. <i>Physical Review Letters</i> , 2004, 93, 250405.	7.8	202
87	Entangling Operations and Their Implementation Using a Small Amount of Entanglement. <i>Physical Review Letters</i> , 2001, 86, 544-547.	7.8	200
88	Continuous Matrix Product States for Quantum Fields. <i>Physical Review Letters</i> , 2010, 104, 190405.	7.8	199
89	Squeezing and Entanglement of Atomic Beams. <i>Physical Review Letters</i> , 2000, 85, 3991-3994.	7.8	198
90	Creation of Dark Solitons and Vortices in Bose-Einstein Condensates. <i>Physical Review Letters</i> , 1998, 80, 2972-2975.	7.8	196

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91	Cold-Atom Quantum Simulator for SU(2) Yang-Mills Lattice Gauge Theory. Physical Review Letters, 2013, 110, 125304.	7.8	196
92	Preparation of macroscopic superpositions in many-atom systems. Physical Review A, 1994, 50, R2799-R2802.	2.5	195
93	Simulating Compact Quantum Electrodynamics with Ultracold Atoms: Probing Confinement and Nonperturbative Effects. Physical Review Letters, 2012, 109, 125302.	7.8	194
94	Scalable architecture for a room temperature solid-state quantum information processor. Nature Communications, 2012, 3, 800.	12.8	193
95	Computational Complexity of Projected Entangled Pair States. Physical Review Letters, 2007, 98, 140506.	7.8	192
96	Quantum gates with neutral atoms: Controlling collisional interactions in time-dependent traps. Physical Review A, 2000, 61, .	2.5	190
97	Entanglement Purification of Gaussian Continuous Variable Quantum States. Physical Review Letters, 2000, 84, 4002-4005.	7.8	188
98	Localizable entanglement. Physical Review A, 2005, 71, .	2.5	188
99	Optically levitating dielectrics in the quantum regime: Theory and protocols. Physical Review A, 2011, 83, .	2.5	188
100	Atomic Quantum Gases in Kagomé Lattices. Physical Review Letters, 2004, 93, 030601.	7.8	184
101	Entanglement percolation in quantum networks. Nature Physics, 2007, 3, 256-259.	11.5	179
102	Rényi Entropies from Random Quenches in Atomic Hubbard and Spin Models. Physical Review Letters, 2018, 120, 050406.	7.8	179
103	Fermionic projected entangled pair states. Physical Review A, 2010, 81, .	2.5	178
104	Neural-Network Quantum States, String-Bond States, and Chiral Topological States. Physical Review X, 2018, 8, .	8.9	178
105	Creation of a Molecular Condensate by Dynamically Melting a Mott Insulator. Physical Review Letters, 2002, 89, 040402.	7.8	177
106	Separability properties of three-mode Gaussian states. Physical Review A, 2001, 64, .	2.5	175
107	String Order and Symmetries in Quantum Spin Lattices. Physical Review Letters, 2008, 100, 167202.	7.8	174
108	Distillability and partial transposition in bipartite systems. Physical Review A, 2000, 61, .	2.5	168

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109	Spin Squeezing Inequalities and Entanglement of NQubit States. Physical Review Letters, 2005, 95, 120502.	7.8	167
110	Universal Quantum Transducers Based on Surface Acoustic Waves. Physical Review X, 2015, 5, .	8.9	164
111	Entanglement Criteria for All Bipartite Gaussian States. Physical Review Letters, 2001, 87, 167904.	7.8	161
112	Quantum simulations of gauge theories with ultracold atoms: Local gauge invariance from angular-momentum conservation. Physical Review A, 2013, 88, .	2.5	157
113	Effective spin quantum phases in systems of trapped ions. Physical Review A, 2005, 72, .	2.5	154
114	Unconventional quantum optics in topological waveguide QED. Science Advances, 2019, 5, eaaw0297.	10.7	154
115	Renormalization-Group Transformations on Quantum States. Physical Review Letters, 2005, 94, 140601.	7.8	153
116	Quantum Benchmark for Storage and Transmission of Coherent States. Physical Review Letters, 2005, 94, 150503.	7.8	152
117	Quantum Chaos in an Ion Trap: The Delta-Kicked Harmonic Oscillator. Physical Review Letters, 1997, 79, 4790-4793.	7.8	151
118	Entanglement Capabilities of Nonlocal Hamiltonians. Physical Review Letters, 2001, 87, 137901.	7.8	147
119	Continuous observation of interference fringes from Bose condensates. Physical Review A, 1996, 54, R3714-R3717.	2.5	146
120	Characterization of separable states and entanglement witnesses. Physical Review A, 2001, 63, .	2.5	144
121	Variational Matrix Product Operators for the Steady State of Dissipative Quantum Systems. Physical Review Letters, 2015, 114, 220601.	7.8	141
122	Multiphoton-scattering theory and generalized master equations. Physical Review A, 2015, 92, .	2.5	140
123	Theory of an atom laser. Physical Review A, 1996, 54, R1757-R1760.	2.5	138
124	Unconditional Two-Mode Squeezing of Separated Atomic Ensembles. Physical Review Letters, 2006, 96, 053602.	7.8	137
125	Reflections upon separability and distillability. Journal of Modern Optics, 2002, 49, 1399-1418.	1.3	133
126	Gaussian entanglement of formation. Physical Review A, 2004, 69, .	2.5	133

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127	Dissipatively driven entanglement of two macroscopic atomic ensembles. <i>Physical Review A</i> , 2011, 83, .	2.5	132
128	Quantum dynamics of propagating photons with strong interactions: a generalized input–output formalism. <i>New Journal of Physics</i> , 2015, 17, 113001.	2.9	131
129	Quantum collapse and revival in the motion of a single trapped ion. <i>Physical Review A</i> , 1994, 49, 1202-1207.	2.5	129
130	Separability in 2^N -N composite quantum systems. <i>Physical Review A</i> , 2000, 61, .	2.5	129
131	Restricted Boltzmann machines in quantum physics. <i>Nature Physics</i> , 2019, 15, 887-892.	11.5	128
132	Mapping local Hamiltonians of fermions to local Hamiltonians of spins. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, P09012-P09012.	2.3	127
133	Algorithms for finite projected entangled pair states. <i>Physical Review B</i> , 2014, 90, .	3.2	127
134	Matrix Product States for Dynamical Simulation of Infinite Chains. <i>Physical Review Letters</i> , 2009, 102, 240603.	7.8	126
135	Operational criterion and constructive checks for the separability of low-rank density matrices. <i>Physical Review A</i> , 2000, 62, .	2.5	125
136	Quasi-Many-Body Localization in Translation-Invariant Systems. <i>Physical Review Letters</i> , 2016, 117, 240601.	7.8	122
137	Self-Organization of Atoms along a Nanophotonic Waveguide. <i>Physical Review Letters</i> , 2013, 110, 113606.	7.8	121
138	Optimal Purification of Single Qubits. <i>Physical Review Letters</i> , 1999, 82, 4344-4347.	7.8	120
139	Exact dynamics in dual-unitary quantum circuits. <i>Physical Review B</i> , 2020, 101, .	3.2	120
140	Separable States Can Be Used To Distribute Entanglement. <i>Physical Review Letters</i> , 2003, 91, 037902.	7.8	118
141	Cold Atom Simulation of Interacting Relativistic Quantum Field Theories. <i>Physical Review Letters</i> , 2010, 105, 190403.	7.8	118
142	Interference of Bose condensates. <i>Physical Review A</i> , 1996, 54, 2185-2196.	2.5	116
143	Bose-Einstein Condensation and Strong-Correlation Behavior of Phonons in Ion Traps. <i>Physical Review Letters</i> , 2004, 93, 263602.	7.8	116
144	Dissipation-induced hard-core boson gas in an optical lattice. <i>New Journal of Physics</i> , 2009, 11, 013053.	2.9	115

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145	Resonating valence bond states in the PEPS formalism. <i>Physical Review B</i> , 2012, 86, .	3.2	115
146	Quantum spin dynamics with pairwise-tunable, long-range interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E4946-55.	7.4	115
147	Holonomic quantum computation with neutral atoms. <i>Physical Review A</i> , 2002, 66, .	2.5	113
148	Exploring frustrated spin systems using projected entangled pair states. <i>Physical Review B</i> , 2009, 79, .	3.2	112
149	Hawking Radiation from an Acoustic Black Hole on an Ion Ring. <i>Physical Review Letters</i> , 2010, 104, 250403.	7.8	112
150	Quantum Phase Transitions in Matrix Product Systems. <i>Physical Review Letters</i> , 2006, 97, 110403.	7.8	111
151	Quantum memories based on engineered dissipation. <i>Physical Review A</i> , 2011, 83, .	2.5	111
152	Topological and entanglement properties of resonating valence bond wave functions. <i>Physical Review B</i> , 2012, 86, .	3.2	111
153	Nanoplasmonic Lattices for Ultracold Atoms. <i>Physical Review Letters</i> , 2012, 109, 235309.	7.8	109
154	Stability and collective excitations of a two-component Bose-Einstein condensed gas: A moment approach. <i>Physical Review A</i> , 1997, 56, 2978-2983.	2.5	108
155	Quantum Gates with $\text{Hot}^{\text{Trapped}}$ Ions. <i>Physical Review Letters</i> , 1998, 81, 1322-1325.	7.8	107
156	Three-dimensional theory for interaction between atomic ensembles and free-space light. <i>Physical Review A</i> , 2002, 66, .	2.5	107
157	Quantum random networks. <i>Nature Physics</i> , 2010, 6, 539-543.	11.5	107
158	Variational matrix product ansatz for dispersion relations. <i>Physical Review B</i> , 2012, 85, .	3.2	107
159	Laser cooling of trapped three-level ions: Designing two-level systems for sideband cooling. <i>Physical Review A</i> , 1994, 49, 2771-2779.	2.5	106
160	Variational matrix-product-state approach to quantum impurity models. <i>Physical Review B</i> , 2009, 80, .	3.2	106
161	Quantum circuits for strongly correlated quantum systems. <i>Physical Review A</i> , 2009, 79, .	2.5	106
162	Simulating $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \text{Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 67 Td (display="inl}$ Lattice QED with Dynamical Matter Using Ultracold Atoms. <i>Physical Review Letters</i> , 2013, 110, 055302.	7.8	106

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163	Collective generation of quantum states of light by entangled atoms. <i>Physical Review A</i> , 2008, 78, .	2.5	104
164	Defect-Suppressed Atomic Crystals in an Optical Lattice. <i>Physical Review Letters</i> , 2003, 91, 110403.	7.8	103
165	Entanglement in fermionic systems. <i>Physical Review A</i> , 2007, 76, .	2.5	103
166	Matrix product unitaries: structure, symmetries, and topological invariants. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 083105.	2.3	103
167	Mesoscopic spin-boson models of trapped ions. <i>Physical Review A</i> , 2008, 78, .	2.5	102
168	Noise-driven dynamics and phase transitions in fermionic systems. <i>Physical Review A</i> , 2013, 87, .	2.5	102
169	Motion tomography of a single trapped ion. <i>Physical Review A</i> , 1996, 53, R1966-R1969.	2.5	101
170	Quantum communication with dark photons. <i>Physical Review A</i> , 1999, 59, 2659-2664.	2.5	99
171	Quantum computing with neutral atoms. <i>Journal of Modern Optics</i> , 2000, 47, 415-451.	1.3	99
172	Simulation of Quantum Many-Body Systems with Strings of Operators and Monte Carlo Tensor Contractions. <i>Physical Review Letters</i> , 2008, 100, 040501.	7.8	99
173	Infinite matrix product states, conformal field theory, and the Haldane-Shastry model. <i>Physical Review B</i> , 2010, 81, .	3.2	99
174	Trapped ions in the strong-excitation regime: Ion interferometry and nonclassical states. <i>Physical Review A</i> , 1996, 54, 1532-1540.	2.5	98
175	New Frontiers in Quantum Information With Atoms and Ions. <i>Physics Today</i> , 2004, 57, 38-44.	0.4	98
176	Creation, Manipulation, and Detection of Abelian and Non-Abelian Anyons in Optical Lattices. <i>Physical Review Letters</i> , 2008, 101, 260501.	7.8	98
177	Topological Order in the Projected Entangled-Pair States Formalism: Transfer Operator and Boundary Hamiltonians. <i>Physical Review Letters</i> , 2013, 111, 090501.	7.8	98
178	Nonlinear matter wave dynamics with a chaotic potential. <i>Physical Review A</i> , 2000, 62, .	2.5	97
179	Entanglement Cost of Bipartite Mixed States. <i>Physical Review Letters</i> , 2002, 89, 027901.	7.8	96
180	Deterministic Generation of Arbitrary Photonic States Assisted by Dissipation. <i>Physical Review Letters</i> , 2015, 115, 163603.	7.8	96

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181	Bound States in Boson Impurity Models. <i>Physical Review X</i> , 2016, 6, .	8.9	96
182	Digital lattice gauge theories. <i>Physical Review A</i> , 2017, 95, .	2.5	96
183	Light-matter quantum interface. <i>Physical Review A</i> , 2004, 70, .	2.5	95
184	Quantum Manipulation of Trapped Ions in Two Dimensional Coulomb Crystals. <i>Physical Review Letters</i> , 2006, 96, 250501.	7.8	95
185	Coherent control of trapped ions using off-resonant lasers. <i>Physical Review A</i> , 2005, 71, .	2.5	93
186	Analogue quantum chemistry simulation. <i>Nature</i> , 2019, 574, 215-218.	35.3	93
187	Sequential generation of matrix-product states in cavity QED. <i>Physical Review A</i> , 2007, 75, .	2.5	92
188	Approximating Gibbs states of local Hamiltonians efficiently with projected entangled pair states. <i>Physical Review B</i> , 2015, 91, .	3.2	92
189	Detecting Vacuum Entanglement in a Linear Ion Trap. <i>Physical Review Letters</i> , 2005, 94, 050504.	7.8	90
190	Quantum Magnetomechanics with Levitating Superconducting Microspheres. <i>Physical Review Letters</i> , 2012, 109, 147205.	7.8	89
191	Effective Size of Certain Macroscopic Quantum Superpositions. <i>Physical Review Letters</i> , 2002, 89, 210402.	7.8	88
192	Digital Quantum Simulation of Z^2 Lattice Gauge Theories with Dynamical Fermionic Matter. <i>Physical Review Letters</i> , 2017, 118, 070501.	7.8	88
193	Optimal simulation of two-qubit Hamiltonians using general local operations. <i>Physical Review A</i> , 2002, 66, .	2.5	87
194	Ground-state properties of quantum many-body systems: entangled-plaquette states and variational Monte Carlo. <i>New Journal of Physics</i> , 2009, 11, 083026.	2.9	87
195	Entanglement Distillation by Dissipation and Continuous Quantum Repeaters. <i>Physical Review Letters</i> , 2011, 107, 120502.	7.8	87
196	Gauging Quantum States: From Global to Local Symmetries in Many-Body Systems. <i>Physical Review X</i> , 2015, 5, .	8.9	87
197	Markovian and non-Markovian dynamics of quantum emitters coupled to two-dimensional structured reservoirs. <i>Physical Review A</i> , 2017, 96, .	2.5	87
198	Variational study of fermionic and bosonic systems with non-Gaussian states: Theory and applications. <i>Annals of Physics</i> , 2018, 390, 245-302.	2.8	87

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199	Quantum Nonlocality in the Presence of Superselection Rules and Data Hiding Protocols. Physical Review Letters, 2003, 91, 010404.	7.8	82
200	Quantum entanglement theory in the presence of superselection rules. Physical Review A, 2004, 70, .	2.5	82
201	Unifying projected entangled pair state contractions. New Journal of Physics, 2014, 16, 033014.	2.9	82
202	Digital quantum simulation of lattice gauge theories in three spatial dimensions. New Journal of Physics, 2018, 20, 093001.	2.9	82
203	Measurement-based measure of the size of macroscopic quantum superpositions. Physical Review A, 2007, 75, .	2.5	81
204	Quantum simulation of the Schwinger model: A study of feasibility. Physical Review A, 2014, 90, .	2.5	81
205	Quantum Emitters in Two-Dimensional Structured Reservoirs in the Nonperturbative Regime. Physical Review Letters, 2017, 119, 143602.	7.8	81
206	Interaction of a two-level atom with a cavity mode in the bad-cavity limit. Physical Review A, 1992, 46, 4354-4362.	2.5	80
207	Dynamic splitting of a Bose-Einstein condensate. Physical Review A, 2001, 63, .	2.5	80
208	Quantum entanglement in spinor Bose-Einstein condensates. Physical Review A, 2002, 65, .	2.5	80
209	Unitary designs via random quenches in atomic Hubbard and spin models: Application to the measurement of Rényi entropies. Physical Review A, 2018, 97, .	2.5	80
210	Reabsorption of Light by Trapped Atoms. Physical Review Letters, 1998, 80, 5305-5308.	7.8	79
211	Nonlocal Resources in the Presence of Superselection Rules. Physical Review Letters, 2004, 92, 087904.	7.8	79
212	Nonclassical states of motion in a three-dimensional ion trap by adiabatic passage. Physical Review A, 1994, 49, R3174-R3177.	2.5	78
213	Local models of fractional quantum Hall states in lattices and physical implementation. Nature Communications, 2013, 4, 2864.	12.8	78
214	Storing Quantum Dynamics in Quantum States: A Stochastic Programmable Gate. Physical Review Letters, 2002, 88, 047905.	7.8	77
215	Laughlin Spin-Liquid States on Lattices Obtained from Conformal Field Theory. Physical Review Letters, 2012, 108, 257206.	7.8	77
216	Projected Entangled-Pair States Can Describe Chiral Topological States. Physical Review Letters, 2013, 111, 236805.	7.8	77

#	ARTICLE	IF	CITATIONS
217	On entropy growth and the hardness of simulating time evolution. <i>New Journal of Physics</i> , 2008, 10, 033032.	2.9	76
218	Density Induced Phase Transitions in the Schwinger Model: A Study with Matrix Product States. <i>Physical Review Letters</i> , 2017, 118, 071601.	7.8	76
219	Interaction Cost of Nonlocal Gates. <i>Physical Review Letters</i> , 2002, 88, 237902.	7.8	75
220	Spin dynamics for bosons in an optical lattice. <i>New Journal of Physics</i> , 2003, 5, 76-76.	2.9	75
221	Entanglement distribution in pure-state quantum networks. <i>Physical Review A</i> , 2008, 77, .	2.5	72
222	Non-Abelian string breaking phenomena with matrix product states. <i>Journal of High Energy Physics</i> , 2015, 2015, 1.	4.7	72
223	Faster ground state preparation and high-precision ground energy estimation with fewer qubits. <i>Journal of Mathematical Physics</i> , 2019, 60, .	1.2	72
224	Mimicking a squeezed-bath interaction: Quantum-reservoir engineering with atoms. <i>Physical Review A</i> , 1998, 57, 548-558.	2.5	71
225	Characterization of nonlocal gates. <i>Physical Review A</i> , 2002, 66, .	2.5	71
226	Exploiting Quantum Parallelism to Simulate Quantum Random Many-Body Systems. <i>Physical Review Letters</i> , 2005, 95, 140501.	7.8	71
227	Irreversibility in Asymptotic Manipulations of Entanglement. <i>Physical Review Letters</i> , 2001, 86, 5803-5806.	7.8	70
228	Matter-Wave Emission in Optical Lattices: Single Particle and Collective Effects. <i>Physical Review Letters</i> , 2008, 101, 260404.	7.8	70
229	Order Parameter for Symmetry-Protected Phases in One Dimension. <i>Physical Review Letters</i> , 2012, 109, 050402.	7.8	70
230	Matrix product states: Symmetries and two-body Hamiltonians. <i>Physical Review A</i> , 2009, 79, .	2.5	69
231	Superconducting Vortex Lattices for Ultracold Atoms. <i>Physical Review Letters</i> , 2013, 111, 145304.	7.8	69
232	Topologically protected quantum state transfer in a chiral spin liquid. <i>Nature Communications</i> , 2013, 4, 1585.	12.8	69
233	Laser cooling of trapped ions: The influence of micromotion. <i>Physical Review A</i> , 1994, 49, 421-432.	2.5	68
234	Purifying Two-Bit Quantum Gates and Joint Measurements in Cavity QED. <i>Physical Review Letters</i> , 1997, 79, 5178-5181.	7.8	68

#	ARTICLE	IF	CITATIONS
235	Nonclassical states and measurement of general motional observables of a trapped ion. Physical Review A, 1997, 55, 1683-1694.	2.5	68
236	Pfaffian State Generation by Strong Three-Body Dissipation. Physical Review Letters, 2010, 104, 096803.	7.8	68
237	Efficient variational diagonalization of fully many-body localized Hamiltonians. Physical Review B, 2016, 94, .	3.2	67
238	Efficient Multiphoton Generation in Waveguide Quantum Electrodynamics. Physical Review Letters, 2017, 118, 213601.	7.8	67
239	Quantum East Model: Localization, Nonthermal Eigenstates, and Slow Dynamics. Physical Review X, 2020, 10, .	8.9	66
240	Quantum information processing with cold atoms and trapped ions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, S567-S578.	1.5	64
241	Emerging bosons with three-body interactions from spin-1 atoms in optical lattices. Physical Review A, 2010, 82, .	2.5	64
242	Standard forms of noisy quantum operations via depolarization. Physical Review A, 2005, 72, .	2.5	63
243	Efficient Basis Formulation for $SU(2)$ Lattice Gauge Theory: Spectral Calculations with Matrix Product States. Physical Review X, 2017, 7, .	8.9	63
244	Entanglement engineering of one-photon wave packets using a single-atom source. Physical Review A, 1998, 58, R2627-R2630.	2.5	62
245	Activating bound entanglement in multiparticle systems. Physical Review A, 2000, 62, .	2.5	62
246	Long-Distance Transfer and Routing of Static Magnetic Fields. Physical Review Letters, 2014, 112, 253901.	7.8	62
247	Adiabatic path to fractional quantum Hall states of a few bosonic atoms. Physical Review A, 2004, 70, .	2.5	61
248	Lieb-Liniger model of a dissipation-induced Tonks-Girardeau gas. Physical Review A, 2009, 79, .	2.5	61
249	Thermal evolution of the Schwinger model with matrix product operators. Physical Review D, 2015, 92, .	4.7	61
250	Quantum chaos in the Brownian SYK model with large finite N : OTOCs and tripartite information. Journal of High Energy Physics, 2019, 2019, 1.	4.7	61
251	Engineering and Harnessing Giant Atoms in High-Dimensional Baths: A Proposal for Implementation with Cold Atoms. Physical Review Letters, 2019, 122, 203603.	7.8	60
252	Optimal Conversion of Nonlocal Unitary Operations. Physical Review Letters, 2002, 89, 057901.	7.8	59

#	ARTICLE	IF	CITATIONS
253	Complete devil's staircase and crystal-superfluid transitions in a dipolar XXZ spin chain: a trapped ion quantum simulation. <i>New Journal of Physics</i> , 2010, 12, 113037.	2.9	59
254	Quantum spin Hamiltonians for the SU(2) kZW model. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011, 2011, P11014.	2.3	59
255	Fermionic projected entangled pair states and local $U(1)$ symmetries. <i>Annals of Physics</i> , 2015, 363, 385-439.	2.8	59
256	Quantum simulation of the Abelian-Higgs lattice gauge theory with ultracold atoms. <i>New Journal of Physics</i> , 2017, 19, 063038.	2.9	58
257	Algorithms for Quantum Simulation at Finite Energies. <i>PRX Quantum</i> , 2021, 2, .	9.2	58
258	Quantum Emulsion: A Glassy Phase of Bosonic Mixtures in Optical Lattices. <i>Physical Review Letters</i> , 2007, 98, 190402.	7.8	57
259	Methods for Detecting Acceleration Radiation in a Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2008, 101, 110402.	7.8	57
260	Characterizing symmetries in a projected entangled pair state. <i>New Journal of Physics</i> , 2010, 12, 025010.	2.9	57
261	Nonlocal operations: Purification, storage, compression, tomography, and probabilistic implementation. <i>Physical Review A</i> , 2001, 64, .	2.5	56
262	Calculus of continuous matrix product states. <i>Physical Review B</i> , 2013, 88, .	3.2	56
263	Entanglement generation and Hamiltonian simulation in continuous-variable systems. <i>Physical Review A</i> , 2003, 67, .	2.5	55
264	Quantum description of nuclear spin cooling in a quantum dot. <i>Physical Review B</i> , 2007, 75, .	3.2	55
265	Adiabatic Preparation of a Heisenberg Antiferromagnet Using an Optical Superlattice. <i>Physical Review Letters</i> , 2011, 107, 165301.	7.8	55
266	Entanglement detection based on interference and particle counting. <i>Physical Review A</i> , 2003, 68, .	2.5	54
267	Laser cooling a trapped atom in a cavity: Bad-cavity limit. <i>Physical Review A</i> , 1995, 51, 1650-1655.	2.5	53
268	Theory of Plasmon-Assisted Transmission of Entangled Photons. <i>Physical Review Letters</i> , 2004, 92, 236801.	7.8	53
269	Efficient quantum memory and entanglement between light and an atomic ensemble using magnetic fields. <i>Physical Review A</i> , 2006, 73, .	2.5	53
270	Two-level system interacting with a finite-bandwidth thermal cavity mode. <i>Physical Review A</i> , 1991, 44, 4541-4551.	2.5	52

#	ARTICLE	IF	CITATIONS
271	Quantum phases of trapped ions in an optical lattice. <i>New Journal of Physics</i> , 2008, 10, 045017.	2.9	52
272	Simulating quantum-optical phenomena with cold atoms in optical lattices. <i>New Journal of Physics</i> , 2011, 13, 023024.	2.9	52
273	Inhibition of spontaneous emission in Fermi gases. <i>Europhysics Letters</i> , 1998, 44, 1-6.	2.0	51
274	From Cooper Pairs to Luttinger Liquids with Bosonic Atoms in Optical Lattices. <i>Physical Review Letters</i> , 2003, 90, 150402.	7.8	51
275	Cold atoms in twisted-bilayer optical potentials. <i>Physical Review A</i> , 2019, 100, .	2.5	51
276	Quantum States on Harmonic Lattices. <i>Communications in Mathematical Physics</i> , 2006, 267, 65-92.	2.2	50
277	Tensor network techniques for the computation of dynamical observables in one-dimensional quantum spin systems. <i>New Journal of Physics</i> , 2012, 14, 075003.	2.9	49
278	Renormalization algorithm for the calculation of spectra of interacting quantum systems. <i>Physical Review B</i> , 2006, 73, .	3.2	48
279	Pairing in fermionic systems: A quantum-information perspective. <i>Physical Review A</i> , 2009, 79, .	2.5	48
280	Purifications of multipartite states: limitations and constructive methods. <i>New Journal of Physics</i> , 2013, 15, 123021.	2.9	48
281	Exotic quantum dynamics and purely long-range coherent interactions in Dirac conelike baths. <i>Physical Review A</i> , 2018, 97, .	2.5	48
282	Variational study of U(1) and SU(2) lattice gauge theories with Gaussian states in d dimensions. <i>Physical Review D</i> , 2018, 98, .	4.7	48
283	Eliminating fermionic matter fields in lattice gauge theories. <i>Physical Review B</i> , 2018, 98, .	3.2	48
284	Realizing a deterministic source of multipartite-entangled photonic qubits. <i>Nature Communications</i> , 2020, 11, 4877.	12.8	48
285	Uniting Bose-Einstein Condensates in Optical Resonators. <i>Physical Review Letters</i> , 2001, 86, 4733-4736.	7.8	47
286	Applying the Variational Principle to Quantum Field Theories. <i>Physical Review Letters</i> , 2010, 105, 251601.	7.8	47
287	Chiral topological spin liquids with projected entangled pair states. <i>Physical Review B</i> , 2015, 91, .	3.2	47
288	Magnetic Tomography of a Cavity State. <i>Physical Review Letters</i> , 1996, 77, 2658-2661.	7.8	46

#	ARTICLE	IF	CITATIONS
289	Quantum phases of interacting phonons in ion traps. Physical Review A, 2008, 77, .	2.5	46
290	Quantum Spin Stabilized Magnetic Levitation. Physical Review Letters, 2017, 119, 167202.	7.8	46
291	Quantum Circuits Assisted by Local Operations and Classical Communication: Transformations and Phases of Matter. Physical Review Letters, 2021, 127, 220503.	7.8	46
292	Spectrum of resonance fluorescence from a single trapped ion. Physical Review A, 1993, 48, 2169-2181.	2.5	45
293	Quantum statistics of a laser cooled ideal gas. Physical Review Letters, 1994, 72, 2977-2980.	7.8	45
294	Teleportation and spin squeezing utilizing multimode entanglement of light with atoms. Physical Review A, 2005, 72, .	2.5	45
295	Unforgeable noise-tolerant quantum tokens. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16079-16082.	7.4	45
296	Rapid Adiabatic Preparation of Injective Projected Entangled Pair States and Gibbs States. Physical Review Letters, 2016, 116, 080503.	7.8	44
297	Localization with random time-periodic quantum circuits. Physical Review B, 2018, 98, .	3.2	44
298	Separability and distillability in composite quantum systems-a primer. Journal of Modern Optics, 2000, 47, 2481-2499.	1.3	43
299	Removing staggered fermionic matter in $U(1)$ spin liquids. Physical Review Letters, 2017, 118, 085701.	4.7	43
300	Computational Difficulty of Finding Matrix Product Ground States. Physical Review Letters, 2008, 100, 250501.	7.8	42
301	Generalized Hartree-Fock theory for interacting fermions in lattices: numerical methods. New Journal of Physics, 2010, 12, 113004.	2.9	42
302	Quantum Simulation of Small-Polaron Formation with Trapped Ions. Physical Review Letters, 2012, 109, 250501.	7.8	42
303	Robustness of quantum memories based on Majorana zero modes. Physical Review B, 2013, 88, .	3.2	42
304	Slowest local operators in quantum spin chains. Physical Review E, 2015, 92, 012128.	2.1	42
305	Collective laser cooling of trapped atoms. Europhysics Letters, 1996, 35, 647-652.	2.0	41
306	Laser cooling of two trapped ions: Sideband cooling beyond the Lamb-Dicke limit. Physical Review A, 1999, 59, 3797-3808.	2.5	41

#	ARTICLE	IF	CITATIONS
307	Multipartite Bound Information Exists and Can Be Activated. <i>Physical Review Letters</i> , 2004, 92, 107903.	7.8	41
308	Pfaffian-like ground state for three-body hard-core bosons in one-dimensional lattices. <i>Physical Review A</i> , 2007, 75, .	2.5	41
309	Homogeneous binary trees as ground states of quantum critical Hamiltonians. <i>Physical Review A</i> , 2010, 81, .	2.5	41
310	Master-equation approach to optomechanics with arbitrary dielectrics. <i>Physical Review A</i> , 2012, 86, .	2.5	41
311	Lattice Laughlin states of bosons and fermions at filling fractions $1/q$. <i>New Journal of Physics</i> , 2014, 16, 033025.	2.9	41
312	Chiral Projected Entangled-Pair State with Topological Order. <i>Physical Review Letters</i> , 2015, 114, 106803.	7.8	41
313	Exploring the anisotropic Kondo model in and out of equilibrium with alkaline-earth atoms. <i>Physical Review B</i> , 2018, 97, .	3.2	41
314	Cooling and localization of atoms in laser-induced potential wells. <i>Physical Review A</i> , 1994, 49, 4876-4887.	2.5	40
315	Physical implementation for entanglement purification of Gaussian continuous-variable quantum states. <i>Physical Review A</i> , 2000, 62, .	2.5	40
316	Multiparty teleportation. <i>Journal of Modern Optics</i> , 2000, 47, 247-255.	1.3	40
317	Quantum Simulators, Continuous-Time Automata, and Translationally Invariant Systems. <i>Physical Review Letters</i> , 2008, 100, 010501.	7.8	40
318	Projected Entangled Pair States with non-Abelian gauge symmetries: An SU(2) study. <i>Annals of Physics</i> , 2016, 374, 84-137.	2.8	40
319	Time-dependent study of disordered models with infinite projected entangled pair states. <i>SciPost Physics</i> , 2019, 6, .	4.8	40
320	Entangling ions in arrays of microscopic traps. <i>Physical Review A</i> , 2001, 63, .	2.5	39
321	Fermionizing a small gas of ultracold bosons. <i>Physical Review A</i> , 2002, 66, .	2.5	39
322	Quantum Computation with Unknown Parameters. <i>Physical Review Letters</i> , 2003, 90, 127902.	7.8	38
323	Ensemble Quantum Computation with Atoms in Periodic Potentials. <i>Physical Review Letters</i> , 2004, 93, 220502.	7.8	38
324	Entanglement flow in multipartite systems. <i>Physical Review A</i> , 2005, 71, .	2.5	38

#	ARTICLE	IF	CITATIONS
325	Trapping states of motion with cold ions. <i>Physical Review A</i> , 1995, 52, 518-524.	2.5	37
326	Ground-state laser cooling beyond the Lamb-Dicke limit. <i>Europhysics Letters</i> , 1997, 39, 13-18.	2.0	37
327	Solving Quantum Impurity Problems in and out of Equilibrium with the Variational Approach. <i>Physical Review Letters</i> , 2018, 121, 026805.	7.8	37
328	Hilbert's 17th Problem and the Quantumness of States. <i>Physical Review Letters</i> , 2005, 94, 153601.	7.8	36
329	Modified spin-wave theory with ordering vector optimization: spatially anisotropic triangular lattice and J_1 , J_2 , J_3 model with Heisenberg interactions. <i>New Journal of Physics</i> , 2011, 13, 075017.	2.9	36
330	Edge Theories in Projected Entangled Pair State Models. <i>Physical Review Letters</i> , 2014, 112, 036402.	7.8	36
331	Fermionic atoms in optical superlattices. <i>Physical Review A</i> , 2005, 71, .	2.5	35
332	Symmetries and boundary theories for chiral projected entangled pair states. <i>Physical Review B</i> , 2014, 90, .	3.2	35
333	Quantum metrology with one-dimensional superradiant photonic states. <i>Physical Review A</i> , 2019, 99, .	2.5	35
334	Quantum Cellular Automata, Tensor Networks, and Area Laws. <i>Physical Review Letters</i> , 2020, 125, 190402.	7.8	35
335	Population trapping in the Jaynes-Cummings model via phase coupling. <i>Physical Review A</i> , 1990, 42, 2851-2857.	2.5	34
336	Multiparticle entanglement and its experimental detection. <i>Journal of Physics A</i> , 2001, 34, 6837-6850.	1.6	34
337	PHYSICS: How to Manipulate Cold Atoms. <i>Science</i> , 2003, 301, 176-177.	19.6	34
338	Nonadditivity of Quantum Capacity for Multiparty Communication Channels. <i>Physical Review Letters</i> , 2004, 93, 020503.	7.8	34
339	Quantum dynamics of a laser-cooled ideal gas. <i>Physical Review A</i> , 1994, 50, 3409-3422.	2.5	33
340	Chaotic and regular behavior of a trapped ion interacting with a laser field. <i>Physical Review A</i> , 1995, 51, 4900-4905.	2.5	33
341	Entangling neutral atoms for quantum information processing. <i>Journal of Modern Optics</i> , 2000, 47, 2137-2149.	1.3	33
342	Ground-state cooling of atoms in optical lattices. <i>Physical Review A</i> , 2006, 74, .	2.5	33

#	ARTICLE	IF	CITATIONS
343	Exact parent Hamiltonians of bosonic and fermionic Moore's Read states on lattices and local models. <i>New Journal of Physics</i> , 2015, 17, 082001.	2.9	33
344	Characterization of distillable and activatable states using entanglement witnesses. <i>Physical Review A</i> , 2002, 65, .	2.5	32
345	Entanglement Frustration for Gaussian States on Symmetric Graphs. <i>Physical Review Letters</i> , 2004, 92, 087903.	7.8	32
346	Sequentially generated states for the study of two-dimensional systems. <i>Physical Review A</i> , 2008, 77, .	2.5	32
347	Optical Superradiance from Nuclear Spin Environment of Single-Photon Emitters. <i>Physical Review Letters</i> , 2010, 104, 143601.	7.8	32
348	Inhibition of Quantum Tunneling of an Atom due to the Continuous Observation of Light Scattering. <i>Europhysics Letters</i> , 1994, 27, 123-128.	2.0	31
349	Resonant Transmission of Cold Atoms through Subwavelength Apertures. <i>Physical Review Letters</i> , 2005, 95, 170406.	7.8	31
350	Engineering Correlation and Entanglement Dynamics in Spin Systems. <i>Physical Review Letters</i> , 2008, 100, 180406.	7.8	31
351	Ion Crystal Transducer for Strong Coupling between Single Ions and Single Photons. <i>Physical Review Letters</i> , 2011, 107, 030501.	7.8	31
352	Zero-temperature phases of the two-dimensional Hubbard-Holstein model: A non-Gaussian exact diagonalization study. <i>Physical Review Research</i> , 2020, 2, .	3.6	31
353	Optomechanics assisted by a qubit: From dissipative state preparation to many-partite systems. <i>Physical Review A</i> , 2013, 88, .	2.5	29
354	Combining tensor networks with Monte Carlo methods for lattice gauge theories. <i>Physical Review D</i> , 2018, 97, .	4.7	29
355	Effective many-body Hamiltonians of qubit-photon bound states. <i>New Journal of Physics</i> , 2018, 20, 105005.	2.9	29
356	Computational Speedups Using Small Quantum Devices. <i>Physical Review Letters</i> , 2018, 121, 250501.	7.8	29
357	Evaluation of time-dependent correlators after a local quench in iPEPS: hole motion in the t-J model. <i>SciPost Physics</i> , 2020, 8, .	4.8	29
358	Suppression of spontaneous emission by squeezed light in a cavity. <i>Physical Review A</i> , 1991, 44, 1948-1955.	2.5	28
359	ENTANGLEMENT AND FRUSTRATION IN ORDERED SYSTEMS. <i>International Journal of Quantum Information</i> , 2003, 01, 465-477.	1.2	28
360	Energy as a Detector of Nonlocality of Many-Body Spin Systems. <i>Physical Review X</i> , 2017, 7, .	8.9	28

#	ARTICLE	IF	CITATIONS
361	Continuous Tensor Network States for Quantum Fields. <i>Physical Review X</i> , 2019, 9, .	8.9	28
362	Dynamics of localization phenomena for hard-core bosons in optical lattices. <i>Physical Review A</i> , 2007, 76, .	2.5	27
363	Detection of spin correlations in optical lattices by light scattering. <i>Physical Review A</i> , 2008, 77, .	2.5	27
364	Modified spin-wave theory with ordering vector optimization: frustrated bosons on the spatially anisotropic triangular lattice. <i>New Journal of Physics</i> , 2010, 12, 053036.	2.9	27
365	Dissipative spin chains: Implementation with cold atoms and steady-state properties. <i>Physical Review A</i> , 2013, 87, .	2.5	27
366	Resonating-valence-bond superconductors with fermionic projected entangled pair states. <i>Physical Review B</i> , 2014, 89, .	3.2	27
367	Population trapping in two-level models: Spectral and statistical properties. <i>Physical Review A</i> , 1991, 44, 3317-3324.	2.5	26
368	Dynamical Creation of a Supersolid in Asymmetric Mixtures of Bosons. <i>Physical Review Letters</i> , 2009, 102, 255304.	7.8	26
369	Simulations of quantum double models. <i>New Journal of Physics</i> , 2009, 11, 053009.	2.9	26
370	Simulating two- and three-dimensional frustrated quantum systems with string-bond states. <i>Physical Review B</i> , 2010, 81, .	3.2	26
371	Superradiance-like electron transport through a quantum dot. <i>Physical Review B</i> , 2012, 86, .	3.2	26
372	Quantum Rydberg Central Spin Model. <i>Physical Review Letters</i> , 2019, 123, 183001.	7.8	26
373	Non-Markovian Quantum Optics with Three-Dimensional State-Dependent Optical Lattices. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 2, 97.	0.0	26
374	Controlled source of entangled photonic qubits. <i>Physical Review A</i> , 2000, 61, .	2.5	25
375	Efficient Evaluation of Partition Functions of Inhomogeneous Many-Body Spin Systems. <i>Physical Review Letters</i> , 2005, 95, 057206.	7.8	25
376	One-shot entanglement generation over long distances in noisy quantum networks. <i>Physical Review A</i> , 2008, 78, .	2.5	25
377	High-fidelity hot gates for generic spin-resonator systems. <i>Physical Review A</i> , 2017, 95, .	2.5	25
378	Dynamics of quantum information in many-body localized systems. <i>Physical Review B</i> , 2017, 96, .	3.2	25

#	ARTICLE	IF	CITATIONS
379	From Probabilistic Graphical Models to Generalized Tensor Networks for Supervised Learning. IEEE Access, 2020, 8, 68169-68182.	4.4	25
380	Catalysis in Nonlocal Quantum Operations. Physical Review Letters, 2002, 88, 167903.	7.8	24
381	Matrix product state and mean-field solutions for one-dimensional systems can be found efficiently. Physical Review A, 2010, 82, .	2.5	24
382	Ground-state properties of the spin- $\frac{1}{2}$ antiferromagnetic Heisenberg model on the triangular lattice: a variational study based on entangled-plaquette states. New Journal of Physics, 2010, 12, 103039.	2.9	24
383	Variational principle for quantum impurity systems in and out of equilibrium: Application to Kondo problems. Physical Review B, 2018, 98, .	3.2	24
384	Gaussian time-dependent variational principle for the Bose-Hubbard model. Physical Review B, 2019, 100, .	3.2	24
385	Reversible universal quantum computation within translation-invariant systems. Physical Review A, 2006, 73, .	2.5	23
386	Fundamental limitations in the purifications of tensor networks. Journal of Mathematical Physics, 2016, 57, .	1.2	23
387	Normal projected entangled pair states generating the same state. New Journal of Physics, 2018, 20, 113017.	2.9	23
388	Simulating $D \times Z^2$ Lattice Gauge Theory with an Infinite Projected Entangled-Pair State. Physical Review Letters, 2021, 126, .	7.8	23
389	Higgs-Mediated Optical Amplification in a Nonequilibrium Superconductor. Physical Review X, 2021, 11, .	8.9	23
390	Quantum Communication in a Quantum Network. Physica Scripta, 1998, T76, 223.	2.5	22
391	Nonlocal Hamiltonian simulation assisted by local operations and classical communication. Physical Review A, 2002, 66, .	2.5	22
392	Towards overcoming the Monte Carlo sign problem with tensor networks. EPJ Web of Conferences, 2017, 137, 04001.	0.3	22
393	Acoustic Traps and Lattices for Electrons in Semiconductors. Physical Review X, 2017, 7, .	8.9	22
394	Tensor Networks and their use for Lattice Gauge Theories. , 2019, , .		22
395	Sequential Generation of Projected Entangled-Pair States. Physical Review Letters, 2022, 128, 010607.	7.8	22
396	Master equation for sympathetic cooling of trapped particles. Physical Review A, 1995, 51, 4617-4627.	2.5	21

#	ARTICLE	IF	CITATIONS
397	Adiabatic time evolution in spin systems. <i>Physical Review A</i> , 2004, 69, .	2.5	21
398	Variational ansatz for the superfluid Mott-insulator transition in optical lattices. <i>Optics Express</i> , 2004, 12, 42.	3.3	21
399	Robust entanglement generation by reservoir engineering. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 124021.	1.5	21
400	Robustness in projected entangled pair states. <i>Physical Review B</i> , 2013, 88, .	3.2	21
401	Lattice effects on Laughlin wave functions and parent Hamiltonians. <i>Physical Review B</i> , 2016, 94, .	3.2	21
402	Efficient Description of Many-Body Systems with Matrix Product Density Operators. <i>PRX Quantum</i> , 2020, 1, .	9.2	21
403	Quantum state transfer in a quantum network: A quantum-optical implementation. <i>Journal of Modern Optics</i> , 1997, 44, 1727-1736.	1.3	20
404	Lower bounds for attainable fidelities in entanglement purification. <i>Physical Review A</i> , 1999, 59, 2641-2648.	2.5	20
405	Steady-State Entanglement in the Nuclear Spin Dynamics of a Double Quantum Dot. <i>Physical Review Letters</i> , 2013, 111, 246802.	7.8	20
406	Frustration Free Gapless Hamiltonians for Matrix Product States. <i>Communications in Mathematical Physics</i> , 2015, 333, 299-333.	2.2	20
407	Probing Thermalization through Spectral Analysis with Matrix Product Operators. <i>Physical Review Letters</i> , 2020, 124, 100602.	7.8	20
408	Analytic approximation to the interaction of a two-level atom with squeezed light. <i>Physical Review A</i> , 1989, 40, 3743-3749.	2.5	19
409	Pumping atoms into a Bose-Einstein condensate in the boson-accumulation regime. <i>Physical Review A</i> , 1996, 53, 2466-2476.	2.5	19
410	Reversible Combination of Inequivalent Kinds of Multipartite Entanglement. <i>Physical Review Letters</i> , 2000, 85, 658-661.	7.8	19
411	PROJECTED ENTANGLED STATES: PROPERTIES AND APPLICATIONS. <i>International Journal of Modern Physics B</i> , 2006, 20, 5142-5153.	1.8	19
412	How Much Entanglement Can Be Generated between Two Atoms by Detecting Photons?. <i>Physical Review Letters</i> , 2007, 98, 010502.	7.8	19
413	Topological Lower Bound on Quantum Chaos by Entanglement Growth. <i>Physical Review Letters</i> , 2021, 126, 160601.	7.8	19
414	Laser cooling of trapped atoms to the ground state: a dark state in position space. <i>Physical Review A</i> , 1998, 57, 2909-2914.	2.5	18

#	ARTICLE	IF	CITATIONS
415	Dynamically turning off interactions in a two-component condensate. <i>Physical Review A</i> , 2002, 65, .	2.5	18
416	Quantum computation with cold bosonic atoms in an optical lattice. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 1537-1548.	3.4	18
417	Quantum Key Distillation from Gaussian States by Gaussian Operations. <i>Physical Review Letters</i> , 2005, 94, 010502.	7.8	18
418	Hawking radiation on an ion ring in the quantum regime. <i>New Journal of Physics</i> , 2011, 13, 045008.	2.9	18
419	Systematic construction of density functionals based on matrix product state computations. <i>New Journal of Physics</i> , 2016, 18, 083039.	2.9	18
420	Topological phenomena in classical optical networks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8967-E8976.	7.4	18
421	Classification of matrix product states with a local (gauge) symmetry. <i>Annals of Physics</i> , 2017, 386, 199-241.	2.8	18
422	Classification of Matrix-Product Unitaries with Symmetries. <i>Physical Review Letters</i> , 2020, 124, 100402.	7.8	18
423	Real-time dynamics in 2+1D compact QED using complex periodic Gaussian states. <i>Physical Review Research</i> , 2020, 2, .	3.6	18
424	Locally Accurate Tensor Networks for Thermal States and Time Evolution. <i>PRX Quantum</i> , 2021, 2, .	9.2	18
425	Enhancing Generative Models via Quantum Correlations. <i>Physical Review X</i> , 2022, 12, .	8.9	18
426	Laser cooling of trapped ions in a squeezed vacuum. <i>Physical Review A</i> , 1993, 47, 2191-2195.	2.5	17
427	How Long Can a Quantum Memory Withstand Depolarizing Noise?. <i>Physical Review Letters</i> , 2009, 103, 080501.	7.8	17
428	Towards electron-electron entanglement in Penning traps. <i>Physical Review A</i> , 2010, 81, .	2.5	17
429	Gapless Hamiltonians for the Toric Code Using the Projected Entangled Pair State Formalism. <i>Physical Review Letters</i> , 2012, 109, 260401.	7.8	17
430	Adiabatic Spectroscopy and a Variational Quantum Adiabatic Algorithm. <i>PRX Quantum</i> , 2022, 3, .	9.2	17
431	Laser cooling of trapped ions with polarization gradients. <i>Physical Review A</i> , 1993, 48, 1434-1445.	2.5	16
432	Collective laser cooling of two trapped ions. <i>Physical Review A</i> , 1996, 53, 950-968.	2.5	16

#	ARTICLE	IF	CITATIONS
433	Cooling toolbox for atoms in optical lattices. <i>New Journal of Physics</i> , 2006, 8, 164-164.	2.9	16
434	Entanglement generation via a completely mixed nuclear spin bath. <i>Physical Review B</i> , 2008, 78, .	3.2	16
435	Nuclear spin dynamics in double quantum dots: Multistability, dynamical polarization, criticality, and entanglement. <i>Physical Review B</i> , 2014, 89, .	3.2	16
436	Correlation Decay in Fermionic Lattice Systems with Power-Law Interactions at Nonzero Temperature. <i>Physical Review Letters</i> , 2017, 119, 110601.	7.8	16
437	Almost conserved operators in nearly many-body localized systems. <i>Physical Review B</i> , 2018, 97, .	3.2	16
438	Entanglement, fractional magnetization, and long-range interactions. <i>Physical Review B</i> , 2013, 87, .	3.2	15
439	Linear stability analysis of a levitated nanomagnet in a static magnetic field: Quantum spin stabilized magnetic levitation. <i>Physical Review B</i> , 2017, 96, .	3.2	15
440	Multimode Fock states with large photon number: effective descriptions and applications in quantum metrology. <i>Quantum Science and Technology</i> , 2020, 5, 025003.	5.8	15
441	Computable Rényi mutual information: Area laws and correlations. <i>Quantum - the Open Journal for Quantum Science</i> , 0, 5, 541.	0.0	15
442	High-fidelity teleportation between light and atoms. <i>Physical Review A</i> , 2006, 74, .	2.5	14
443	Delocalized Entanglement of Atoms in Optical Lattices. <i>Physical Review Letters</i> , 2007, 98, 190502.	7.8	14
444	Topological phenomena in trapped-ion systems. <i>Physical Review A</i> , 2013, 87, .	2.5	14
445	Quantum optics, what next?. <i>Nature Photonics</i> , 2017, 11, 18-20.	22.6	14
446	A generalization of the injectivity condition for projected entangled pair states. <i>Journal of Mathematical Physics</i> , 2018, 59, .	1.2	14
447	Entanglement and its relation to energy variance for local one-dimensional Hamiltonians. <i>Physical Review B</i> , 2020, 101, .	3.2	14
448	Variational Approach for Many-Body Systems at Finite Temperature. <i>Physical Review Letters</i> , 2020, 125, 180602.	7.8	14
449	Exploiting the photonic nonlinearity of free-space subwavelength arrays of atoms. <i>Physical Review A</i> , 2021, 104, .	2.5	14
450	Fermionic quantum cellular automata and generalized matrix-product unitaries. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2021, 2021, 013107.	2.3	14

#	ARTICLE	IF	CITATIONS
451	Bose polaron and the Efimov effect: A Gaussian-state approach. <i>Physical Review A</i> , 2022, 105, .	2.5	14
452	Quantum interface between light and nuclear spins in quantum dots. <i>Physical Review B</i> , 2010, 81, .	3.2	13
453	Dissipative long-range entanglement generation between electronic spins. <i>Physical Review B</i> , 2016, 94, .	3.2	13
454	Irreducible forms of matrix product states: Theory and applications. <i>Journal of Mathematical Physics</i> , 2017, 58, .	1.2	13
455	Error Propagation in NISQ Devices for Solving Classical Optimization Problems. <i>PRX Quantum</i> , 2022, 3, .	9.2	13
456	Separability and Distillability of bipartite Gaussian States – the Complete Story. <i>Fortschritte Der Physik</i> , 2001, 49, 973.	4.7	12
457	Irreversibility in asymptotic manipulations of a distillable entangled state. <i>Physical Review A</i> , 2001, 65, .	2.5	12
458	Violation of the area law and long-range correlations in infinite-dimensional-matrix product states. <i>Physical Review A</i> , 2011, 83, .	2.5	12
459	Quantum Gross-Pitaevskii Equation. <i>SciPost Physics</i> , 2017, 3, .	4.8	12
460	Variational Ansatz for the Ground State of the Quantum Sherrington-Kirkpatrick Model. <i>Physical Review Letters</i> , 2022, 129, .	7.8	12
461	Quantum simulations under translational symmetry. <i>Physical Review A</i> , 2007, 75, .	2.5	11
462	Interfacing nuclear spins in quantum dots to a cavity or traveling-wave fields. <i>New Journal of Physics</i> , 2010, 12, 043026.	2.9	11
463	Mathematical open problems in projected entangled pair states. <i>Revista Matematica Complutense</i> , 2019, 32, 579-599.	1.2	11
464	Wigner crystals in two-dimensional transition-metal dichalcogenides: Spin physics and readout. <i>Physical Review B</i> , 2020, 101, .	3.2	11
465	Generation of photonic matrix product states with Rydberg atomic arrays. <i>Physical Review Research</i> , 2021, 3, .	3.6	11
466	Quantum simulation of two-dimensional quantum chemistry in optical lattices. <i>Physical Review Research</i> , 2020, 2, .	3.6	11
467	Field-induced superfluids and Bose liquids in projected entangled pair states. <i>Physical Review B</i> , 2013, 88, .	3.2	10
468	Nondestructive photon counting in waveguide QED. <i>Physical Review Research</i> , 2020, 2, .	3.6	10

#	ARTICLE	IF	CITATIONS
469	Ultrafast molecular dynamics in terahertz-STM experiments: Theoretical analysis using the Anderson-Holstein model. <i>Physical Review Research</i> , 2020, 2, .	3.6	10
470	Quantum computing and simulation. <i>Nanophotonics</i> , 2020, 10, 453-456.	6.2	10
471	Quantum motion of trapped ions. <i>Physica Scripta</i> , 1995, T59, 294-302.	2.5	9
472	Generalized Bose-Einstein distributions and multistability of a laser-cooled gas. <i>Physical Review A</i> , 1995, 51, 2899-2907.	2.5	9
473	Entanglement Capability of Two-qubit Operations. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 2001, 56, 91-99.	1.5	9
474	Visible compression of commuting mixed states. <i>Physical Review A</i> , 2001, 64, .	2.5	9
475	Entanglement in systems of indistinguishable fermions. <i>Journal of Physics: Conference Series</i> , 2009, 171, 012032.	0.4	9
476	Ground states of fermionic lattice Hamiltonians with permutation symmetry. <i>Physical Review A</i> , 2013, 88, .	2.5	9
477	Generation of single- and two-mode multiphoton states in waveguide QED. <i>Physical Review A</i> , 2018, 97, .	2.5	9
478	Efficient variational approach to dynamics of a spatially extended bosonic Kondo model. <i>Physical Review A</i> , 2019, 100, .	2.5	9
479	Matrix Product States: Entanglement, Symmetries, and State Transformations. <i>Physical Review Letters</i> , 2019, 123, 170504.	7.8	9
480	Chemistry of a Light Impurity in a Bose-Einstein Condensate. <i>Physical Review Letters</i> , 2022, 128, 183401.	7.8	9
481	Classical algorithms for many-body quantum systems at finite energies. <i>Physical Review B</i> , 2022, 106, .	3.2	9
482	Quantum simulation of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \langle \text{mml:mi mathvariant="double-struck"} \text{Z} \langle \text{mml:mi} \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ lattice gauge theory with minimal resources. <i>Physical Review D</i> , 2023, 108, .	4.7	9
483	Multiparty teleportation. <i>Journal of Modern Optics</i> , 2000, 47, 247-255.	1.3	8
484	Quantum Processing Photonic States in Optical Lattices. <i>Physical Review Letters</i> , 2008, 100, 063601.	7.8	8
485	Quantum simulations based on measurements and feedback control. <i>Physical Review A</i> , 2009, 79, .	2.5	8
486	Optical-lattice implementation scheme of a bosonic topological model with fermionic atoms. <i>Physical Review A</i> , 2014, 90, .	2.5	8

#	ARTICLE	IF	CITATIONS
487	Approximating the long time average of the density operator: Diagonal ensemble. Physical Review B, 2021, 103, .	3.2	8
488	Variational dynamics as a ground-state problem on a quantum computer. Physical Review Research, 2022, 4, .	3.6	8
489	Laser-induced condensation of trapped bosonic gases. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4131-4148.	1.5	7
490	Edge states for the Kalmeyer-Laughlin wave function. Physical Review B, 2015, 92, .	3.2	7
491	Quantum simulation and optimization in hot quantum networks. Physical Review B, 2019, 99, .	3.2	7
492	Markovianity of an emitter coupled to a structured spin-chain bath. Physical Review A, 2020, 101, .	2.5	7
493	Atomic waveguide QED with atomic dimers. Physical Review A, 2021, 104, .	2.5	7
494	Convergence Guarantees for Discrete Mode Approximations to Non-Markovian Quantum Baths. Physical Review Letters, 2021, 127, 250404.	7.8	7
495	Long-Range Free Fermions: Lieb-Robinson Bound, Clustering Properties, and Topological Phases. Physical Review Letters, 2023, 130, .	7.8	7
496	Quantum Statistics of a Laser Cooled Ideal Gas. Physical Review Letters, 1994, 73, 2010-2010.	7.8	6
497	Phase shifts and intensity dependence in frequency-modulation spectroscopy. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 721.	2.0	6
498	Cooling of atoms in external fields. Physical Review A, 1995, 52, 4737-4740.	2.5	6
499	Trapping atoms in the vacuum field of a cavity. Physical Review A, 2003, 67, .	2.5	6
500	Matrix product states with long-range localizable entanglement. Physical Review A, 2012, 86, .	2.5	6
501	Weakly invasive metrology: quantum advantage and physical implementations. Quantum - the Open Journal for Quantum Science, 0, 5, 446.	0.0	6
502	Density of states of the lattice Schwinger model. Physical Review D, 2021, 104, .	4.7	6
503	Temperature dependence of the chiral condensate in the Schwinger model with Matrix Product States. , 2015, , .		6
504	Spin-Holstein Models in Trapped-Ion Systems. Physical Review Letters, 2022, 128, 120404.	7.8	6

#	ARTICLE	IF	CITATIONS
505	Preparation and verification of tensor network states. <i>Physical Review Research</i> , 2022, 4, .	3.6	6
506	Efficient adiabatic preparation of tensor network states. <i>Physical Review Research</i> , 2023, 5, .	3.6	6
507	Preparation of Matrix Product States with Log-Depth Quantum Circuits. <i>Physical Review Letters</i> , 2024, 132, .	7.8	6
508	Quantum communication and the creation of maximally entangled pairs of atoms over a noisy channel. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1998, 356, 1841-1851.	3.4	5
509	Entangled atomic samples. <i>Nature</i> , 2001, 413, 375-377.	35.3	5
510	Heralded multiphoton states with coherent spin interactions in waveguide QED. <i>New Journal of Physics</i> , 2017, 19, 043004.	2.9	5
511	Efficient quantum computation in a network with probabilistic gates and logical encoding. <i>Physical Review A</i> , 2017, 95, .	2.5	5
512	Continuum limits of matrix product states. <i>Physical Review B</i> , 2018, 98, .	3.2	5
513	Generalization of group-theoretic coherent states for variational calculations. <i>Physical Review Research</i> , 2021, 3, .	3.6	5
514	Quantum Repeaters for Quantum Communication. , 1999, , 147-154.		5
515	Long-range electron-electron interactions in quantum dot systems and applications in quantum chemistry. <i>Physical Review Research</i> , 2022, 4, .	3.6	5
516	Characterization of decoherence processes in quantum computation. <i>Optics Express</i> , 1998, 2, 372.	3.3	4
517	Controlling dynamical phases in quantum optics. <i>Journal of Optics B: Quantum and Semiclassical Optics</i> , 2002, 4, S430-S436.	1.4	4
518	Topology in quantum states. PEPS formalism and beyond. <i>Journal of Physics: Conference Series</i> , 2007, 87, 012003.	0.4	4
519	Construction of spin models displaying quantum criticality from quantum field theory. <i>Nuclear Physics B</i> , 2014, 886, 63-74.	2.6	4
520	Bosonic Gaussian states from conformal field theory. <i>Physical Review B</i> , 2018, 98, .	3.2	4
521	Projected entangled pair states with continuous virtual symmetries. <i>Physical Review B</i> , 2018, 98, .	3.2	4
522	Field tensor network states. <i>Physical Review B</i> , 2021, 103, .	3.2	4

#	ARTICLE	IF	CITATIONS
523	Quantum algorithms for powering stable Hermitian matrices. <i>Physical Review A</i> , 2021, 103, .	2.5	4
524	Physical Implementations for Quantum Communication in Quantum Networks. <i>Lecture Notes in Computer Science</i> , 1999, , 373-382.	2.0	4
525	Deterministic Quantum Interface between Light and Atomic Ensembles. , 2007, , 513-551.		4
526	Generation of photonic tensor network states with circuit QED. <i>Physical Review A</i> , 2022, 105, .	2.5	4
527	Large- $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi>N</mml:mi> \langle \text{mml:math> limit of Dicke superradiance. Physical Review A, 2022, 106, .$	2.5	4
528	Topological effects in two-dimensional quantum emitter systems. <i>Physical Review B</i> , 2023, 107, .	3.2	4
529	Simulating Prethermalization Using Near-Term Quantum Computers. <i>PRX Quantum</i> , 2023, 4, .	9.2	4
530	Decoherence and Quantum Error Correction in Frequency Standards. , 2002, , 337-345.		3
531	Phonon Superfluids in Sets of Trapped Ions. <i>Foundations of Physics</i> , 2006, 36, 465-476.	1.3	3
532	Rényi free energy and variational approximations to thermal states. <i>Physical Review B</i> , 2021, 103, .	3.2	3
533	Bound Entanglement for Continuous Variables is a Rare Phenomenon. , 2003, , 211-228.		3
534	Gaussian states for the variational study of (1+1)-dimensional lattice gauge models. , 2019, , .		3
535	Transitions in Computational Complexity of Continuous-Time Local Open Quantum Dynamics. <i>Physical Review Letters</i> , 2022, 129, .	7.8	3
536	Quantum engineering moves on. <i>Physics World</i> , 1999, 12, 22-24.	0.0	2
537	Quantum Teleportation with Atomic Ensembles and Coherent Light. , 2002, , 351-357.		2
538	Strong correlation effects and quantum information theory of low dimensional atomic gases. <i>European Physical Journal Special Topics</i> , 2004, 116, 135-168.	0.2	2
539	Optimal Squeezing and Entanglement from Noisy Gaussian Operations. <i>Physical Review Letters</i> , 2006, 96, 023004.	7.8	2
540	Quantum simulation – an exciting adventure. <i>Annalen Der Physik</i> , 2013, 525, A153.	2.4	2

#	ARTICLE	IF	CITATIONS
541	Effective description of correlations for states obtained from conformal field theory. Physical Review B, 2017, 96, .	3.2	2
542	Solid-state magnetic traps and lattices. Physical Review B, 2018, 97, .	3.2	2
543	Locality of temperature and correlations in the presence of non-zero-temperature phase transitions. New Journal of Physics, 2021, 23, 073052.	2.9	2
544	Quantum Networks and Multi-Particle Entanglement. , 2000, , 191-220.		2
545	Quantum Information: Entanglement, Purification, Error Correction, and Quantum Optical Implementations. , 2002, , 199-239.		2
546	Symmetries and local transformations of translationally invariant matrix product states. Physical Review A, 2022, 105, .	2.5	2
547	Locality optimization for parent Hamiltonians of tensor networks. Physical Review B, 2022, 106, .	3.2	2
548	Free-fermion Page curve: Canonical typicality and dynamical emergence. Physical Review Research, 2023, 5, .	3.6	2
549	Cross-platform verification in quantum networks. Physical Review A, 2023, 107, .	2.5	2
550	Variational Monte Carlo algorithm for lattice gauge theories with continuous gauge groups: A study of d -dimensional compact QED with dynamical fermions at finite density. Physical Review Research, 2023, 5, .	3.6	2
551	Non-classical states of motion in an ion trap. , 1993, , 156-169.		1
552	Quantum Engineering with Trapped Ions. , 1997, , 317-323.		1
553	Cooling of a small sample of Bose atoms with accidental degeneracy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4107-4129.	1.5	1
554	Continuous variable entanglement purification and its physical implementation. Journal of Modern Optics, 2000, 47, 2529-2542.	1.3	1
555	Nonlocality in the presence of superselection rules. , 2004, 5468, 93.		1
556	Simulation of quantum magnetism with trapped ions. , 2005, , .		1
557	Entanglement Generated by Dissipation. , 2011, , .		1
558	Ultrashort Pulses for Far-Field Nanoscopy. Physical Review Letters, 2016, 117, 103602.	7.8	1

#	ARTICLE	IF	CITATIONS
559	Ultrafocussed Electromagnetic Field Pulses with a Hollow Cylindrical Waveguide. Physical Review Letters, 2017, 119, 043904.	7.8	1
560	Quantum optics without photons. Nature, 2018, 559, 481-482.	35.3	1
561	Separability and Distillability of bipartite Gaussian States “the Complete Story. Fortschritte Der Physik, 2001, 49, 973.	4.7	1
562	Gaussian matrix product states cannot efficiently describe critical systems. Physical Review B, 2022, 106, .	3.2	1
563	Few-Body Analog Quantum Simulation with Rydberg-Dressed Atoms in Optical Lattices. PRX Quantum, 2023, 4, .	9.2	1
564	Symmetries and field tensor network states. Physical Review B, 2023, 107, .	3.2	1
565	Fermionic matter-wave quantum optics with cold-atom impurity models. Physical Review A, 2024, 109, .	2.5	1
566	Phase-Sensitive Quantum Measurement without Controlled Operations. Physical Review Letters, 2024, 132, .	7.8	1
567	Quantum communication and computation. AIP Conference Proceedings, 1999, , .	0.2	0
568	From Classical to Quantum Computers. Quantum Computations with Trapped Ions. Physica Scripta, 2000, T86, 72.	2.5	0
569	Quantum Information Processing with Quantum Optics. Annales Henri Poincare, 2003, 4, 759-781.	1.7	0
570	Quantum Computation: Basic Concepts and Physical Implementations. AIP Conference Proceedings, 2003, , .	0.2	0
571	Squeezing and entanglement from noisy Gaussian operations (Invited Paper). , 2005, , .		0
572	Superfluid-Mott insulator transition and Bose-Einstein Condensation of phonons in ion traps. AIP Conference Proceedings, 2005, , .	0.2	0
573	PROJECTED ENTANGLED STATES: PROPERTIES AND APPLICATIONS. , 2006, , .		0
574	Quantum computation and quantum simulation with Coulomb crystals. , 2007, , .		0
575	QUANTUM INFORMATION PROCESSING: PRESENT STATUS AND PERSPECTIVES. , 2008, , .		0
576	Quantum memory, entanglement and sensing with room temperature atoms. Journal of Physics: Conference Series, 2011, 264, 012022.	0.4	0

#	ARTICLE	IF	CITATIONS
577	Simulating quantum-optical phenomena with optical lattices. , 2011, , .		0
578	Quantum Computing with Cold Ions and Atoms: Theory. , 2016, , 483-517.		0
579	Distillability and Entanglement Purification for Gaussian States. , 2003, , 173-192.		0
580	Inseparability Criterion for Continuous Variable Systems. , 2003, , 145-153.		0
581	SPECTROSCOPY OF STRONGLY CORRELATED COLD ATOMS. , 2004, , .		0
582	STRONG CORRELATION EFFECTS IN COLD ATOMIC GASES. , 2004, , .		0
583	Quantum State Generation in Many-Body Quantum Optical Systems. , 2007, , .		0
584	Trapping in Some Model Hamiltonians. Springer Proceedings in Physics, 1991, , 120-124.	0.0	0
585	Non-Classical States of Motion and Quantum Collapse and Revival in an Ion Trap. Springer Proceedings in Physics, 1994, , 112-120.	0.0	0
586	Synthesis of Entangled Atomic States and Quantum Computation. , 1996, , 35-44.		0
587	Quantum Computing and Decoherence in Quantum Optical Systems. , 1997, , 159-169.		0
588	Ensemble Quantum Computation and Algorithmic Cooling in Optical Lattices. , 0, , 99-120.		0
589	Probing off-diagonal eigenstate thermalization with tensor networks. Physical Review B, 2024, 109, .	3.2	0
590	Quantum advantage and stability to errors in analogue quantum simulators. Nature Communications, 2024, 15, .	12.8	0