

Juan Ignacio Cirac Sasturáin

List of Publications by Year in descending order

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606
papers

79,823
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484

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614
docs citations

614
times ranked

20690
citing authors

#	ARTICLE	IF	CITATIONS
1	Cold Bosonic Atoms in Optical Lattices. <i>Physical Review Letters</i> , 1998, 81, 3108-3111.	2.9	3,154
2	Quantum Computations with Cold Trapped Ions. <i>Physical Review Letters</i> , 1995, 74, 4091-4094.	2.9	3,086
3	Long-distance quantum communication with atomic ensembles and linear optics. <i>Nature</i> , 2001, 414, 413-418.	13.7	2,891
4	Three qubits can be entangled in two inequivalent ways. <i>Physical Review A</i> , 2000, 62, .	1.0	2,609
5	Quantum Repeaters: The Role of Imperfect Local Operations in Quantum Communication. <i>Physical Review Letters</i> , 1998, 81, 5932-5935.	2.9	2,526
6	Quantum State Transfer and Entanglement Distribution among Distant Nodes in a Quantum Network. <i>Physical Review Letters</i> , 1997, 78, 3221-3224.	2.9	1,845
7	Inseparability Criterion for Continuous Variable Systems. <i>Physical Review Letters</i> , 2000, 84, 2722-2725.	2.9	1,712
8	Tonksâ€“Girardeau gas of ultracold atoms in an optical lattice. <i>Nature</i> , 2004, 429, 277-281.	13.7	1,385
9	Dipole Blockade and Quantum Information Processing in Mesoscopic Atomic Ensembles. <i>Physical Review Letters</i> , 2001, 87, 037901.	2.9	1,290
10	Machine learning and the physical sciences. <i>Reviews of Modern Physics</i> , 2019, 91, .	16.4	1,245
11	Matrix product states, projected entangled pair states, and variational renormalization group methods for quantum spin systems. <i>Advances in Physics</i> , 2008, 57, 143-224.	35.9	1,210
12	Fast Quantum Gates for Neutral Atoms. <i>Physical Review Letters</i> , 2000, 85, 2208-2211.	2.9	1,197
13	Quantum computation and quantum-state engineering driven by dissipation. <i>Nature Physics</i> , 2009, 5, 633-636.	6.5	1,092
14	Many-particle entanglement with Boseâ€“Einstein condensates. <i>Nature</i> , 2001, 409, 63-66.	13.7	809
15	Improvement of Frequency Standards with Quantum Entanglement. <i>Physical Review Letters</i> , 1997, 79, 3865-3868.	2.9	782
16	Experimental demonstration of quantum memory for light. <i>Nature</i> , 2004, 432, 482-486.	13.7	727
17	Matrix Product Density Operators: Simulation of Finite-Temperature and Dissipative Systems. <i>Physical Review Letters</i> , 2004, 93, 207204.	2.9	724
18	Decoherence, Continuous Observation, and Quantum Computing: A Cavity QED Model. <i>Physical Review Letters</i> , 1995, 75, 3788-3791.	2.9	713

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19	Entanglement of Atoms via Cold Controlled Collisions. <i>Physical Review Letters</i> , 1999, 82, 1975-1978.	2.9	712
20	Room-Temperature Quantum Bit Memory Exceeding One Second. <i>Science</i> , 2012, 336, 1283-1286.	6.0	707
21	Effective Quantum Spin Systems with Trapped Ions. <i>Physical Review Letters</i> , 2004, 92, 207901.	2.9	700
22	Quantum teleportation between light and matter. <i>Nature</i> , 2006, 443, 557-560.	13.7	644
23	Geometric Manipulation of Trapped Ions for Quantum Computation. <i>Science</i> , 2001, 292, 1695-1697.	6.0	641
24	Goals and opportunities in quantum simulation. <i>Nature Physics</i> , 2012, 8, 264-266.	6.5	639
25	Quantum Reservoir Engineering with Laser Cooled Trapped Ions. <i>Physical Review Letters</i> , 1996, 77, 4728-4731.	2.9	607
26	Majorana Fermions in Equilibrium and in Driven Cold-Atom Quantum Wires. <i>Physical Review Letters</i> , 2011, 106, 220402.	2.9	606
27	Quantum repeaters based on entanglement purification. <i>Physical Review A</i> , 1999, 59, 169-181.	1.0	567
28	Sonic Analog of Gravitational Black Holes in Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2000, 85, 4643-4647.	2.9	556
29	Complete Characterization of a Quantum Process: The Two-Bit Quantum Gate. <i>Physical Review Letters</i> , 1997, 78, 390-393.	2.9	546
30	Optimization of entanglement witnesses. <i>Physical Review A</i> , 2000, 62, .	1.0	540
31	Classifying quantum phases using matrix product states and projected entangled pair states. <i>Physical Review B</i> , 2011, 84, .	1.1	521
32	Matrix product states represent ground states faithfully. <i>Physical Review B</i> , 2006, 73, .	1.1	484
33	Creation of entangled states of distant atoms by interference. <i>Physical Review A</i> , 1999, 59, 1025-1033.	1.0	481
34	Assessing Non-Markovian Quantum Dynamics. <i>Physical Review Letters</i> , 2008, 101, 150402.	2.9	477
35	Entanglement Generated by Dissipation and Steady State Entanglement of Two Macroscopic Objects. <i>Physical Review Letters</i> , 2011, 107, 080503.	2.9	465
36	Area Laws in Quantum Systems: Mutual Information and Correlations. <i>Physical Review Letters</i> , 2008, 100, 070502.	2.9	458

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37	Characterization of Gaussian operations and distillation of Gaussian states. <i>Physical Review A</i> , 2002, 66, .	1.0	456
38	Density Matrix Renormalization Group and Periodic Boundary Conditions: A Quantum Information Perspective. <i>Physical Review Letters</i> , 2004, 93, 227205.	2.9	455
39	Time-Dependent Variational Principle for Quantum Lattices. <i>Physical Review Letters</i> , 2011, 107, 070601.	2.9	450
40	A scalable quantum computer with ions in an array of microtraps. <i>Nature</i> , 2000, 404, 579-581.	13.7	449
41	Distributed quantum computation over noisy channels. <i>Physical Review A</i> , 1999, 59, 4249-4254.	1.0	444
42	Criticality, the Area Law, and the Computational Power of Projected Entangled Pair States. <i>Physical Review Letters</i> , 2006, 96, 220601.	2.9	422
43	Classical Simulation of Infinite-Size Quantum Lattice Systems in Two Spatial Dimensions. <i>Physical Review Letters</i> , 2008, 101, 250602.	2.9	413
44	High-Temperature Superfluidity of Fermionic Atoms in Optical Lattices. <i>Physical Review Letters</i> , 2002, 89, 220407.	2.9	396
45	Entanglement versus Correlations in Spin Systems. <i>Physical Review Letters</i> , 2004, 92, 027901.	2.9	377
46	Quantum superposition states of Bose-Einstein condensates. <i>Physical Review A</i> , 1998, 57, 1208-1218.	1.0	375
47	Large Quantum Superpositions and Interference of Massive Nanometer-Sized Objects. <i>Physical Review Letters</i> , 2011, 107, 020405.	2.9	373
48	Toward quantum superposition of living organisms. <i>New Journal of Physics</i> , 2010, 12, 033015.	1.2	366
49	Low Energy Excitations of a Bose-Einstein Condensate: A Time-Dependent Variational Analysis. <i>Physical Review Letters</i> , 1996, 77, 5320-5323.	2.9	349
50	Dynamics of Bose-Einstein condensates: Variational solutions of the Gross-Pitaevskii equations. <i>Physical Review A</i> , 1997, 56, 1424-1432.	1.0	325
51	Quantum correlations in two-fermion systems. <i>Physical Review A</i> , 2001, 64, .	1.0	323
52	Diverging Entanglement Length in Gapped Quantum Spin Systems. <i>Physical Review Letters</i> , 2004, 92, 087201.	2.9	315
53	Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009, 42, 504004.	0.7	314
54	Optimal creation of entanglement using a two-qubit gate. <i>Physical Review A</i> , 2001, 63, .	1.0	310

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55	Strong Dissipation Inhibits Losses and Induces Correlations in Cold Molecular Gases. <i>Science</i> , 2008, 320, 1329-1331.	6.0	304
56	Quantum simulations of lattice gauge theories using ultracold atoms in optical lattices. <i>Reports on Progress in Physics</i> , 2016, 79, 014401.	8.1	301
57	de Finetti Representation Theorem for Infinite-Dimensional Quantum Systems and Applications to Quantum Cryptography. <i>Physical Review Letters</i> , 2009, 102, 110504.	2.9	277
58	Quantum information processing and communication. <i>European Physical Journal D</i> , 2005, 36, 203-228.	0.6	272
59	Simulating lattice gauge theories within quantum technologies. <i>European Physical Journal D</i> , 2020, 74, 1.	0.6	272
60	Quantum Communication between Atomic Ensembles Using Coherent Light. <i>Physical Review Letters</i> , 2000, 85, 5643-5646.	2.9	268
61	Valence-bond states for quantum computation. <i>Physical Review A</i> , 2004, 70, .	1.0	258
62	â€˜â€˜Darkâ€™â€™ squeezed states of the motion of a trapped ion. <i>Physical Review Letters</i> , 1993, 70, 556-559.	2.9	253
63	Strong and Weak Thermalization of Infinite Nonintegrable Quantum Systems. <i>Physical Review Letters</i> , 2011, 106, 050405.	2.9	252
64	Entanglement of Formation for Symmetric Gaussian States. <i>Physical Review Letters</i> , 2003, 91, 107901.	2.9	250
65	Entropy Scaling and Simulability by Matrix Product States. <i>Physical Review Letters</i> , 2008, 100, 030504.	2.9	250
66	Laser cooling of trapped ions in a standing wave. <i>Physical Review A</i> , 1992, 46, 2668-2681.	1.0	248
67	Subwavelength vacuum lattices and atomâ€˜atom interactions in two-dimensional photonic crystals. <i>Nature Photonics</i> , 2015, 9, 320-325.	15.6	242
68	Separability and Distillability of Multiparticle Quantum Systems. <i>Physical Review Letters</i> , 1999, 83, 3562-3565.	2.9	238
69	The 2019 surface acoustic waves roadmap. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 353001.	1.3	236
70	Classification of multiqubit mixed states: Separability and distillability properties. <i>Physical Review A</i> , 2000, 61, .	1.0	235
71	Extremality of Gaussian Quantum States. <i>Physical Review Letters</i> , 2006, 96, 080502.	2.9	235
72	Dissipative phase transition in a central spin system. <i>Physical Review A</i> , 2012, 86, .	1.0	234

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73	PEPS as ground states: Degeneracy and topology. <i>Annals of Physics</i> , 2010, 325, 2153-2192.	1.0	231
74	Speed Optimized Two-Qubit Gates with Laser Coherent Control Techniques for Ion Trap Quantum Computing. <i>Physical Review Letters</i> , 2003, 91, 157901.	2.9	226
75	Preparation of Fock states by observation of quantum jumps in an ion trap. <i>Physical Review Letters</i> , 1993, 70, 762-765.	2.9	224
76	Matrix product operator representations. <i>New Journal of Physics</i> , 2010, 12, 025012.	1.2	224
77	Entanglement spectrum and boundary theories with projected entangled-pair states. <i>Physical Review B</i> , 2011, 83, .	1.1	223
78	Matrix product states and projected entangled pair states: Concepts, symmetries, theorems. <i>Reviews of Modern Physics</i> , 2021, 93, .	16.4	221
79	Quantum memory for nonstationary light fields based on controlled reversible inhomogeneous broadening. <i>Physical Review A</i> , 2006, 73, .	1.0	218
80	Dividing Quantum Channels. <i>Communications in Mathematical Physics</i> , 2008, 279, 147-168.	1.0	217
81	Many-particle entanglement in two-component Bose-Einstein condensates. <i>Physical Review A</i> , 2003, 67, .	1.0	212
82	12-Anyons in Small Atomic Bose-Einstein Condensates. <i>Physical Review Letters</i> , 2001, 87, 010402.	2.9	211
83	Sonic black holes in dilute Bose-Einstein condensates. <i>Physical Review A</i> , 2001, 63, .	1.0	208
84	Ideal Quantum Communication over Noisy Channels: A Quantum Optical Implementation. <i>Physical Review Letters</i> , 1997, 78, 4293-4296.	2.9	206
85	Discrete Entanglement Distribution with Squeezed Light. <i>Physical Review Letters</i> , 2004, 92, 013602.	2.9	203
86	Implementation of Spin Hamiltonians in Optical Lattices. <i>Physical Review Letters</i> , 2004, 93, 250405.	2.9	200
87	Variational study of hard-core bosons in a two-dimensional optical lattice using projected entangled pair states. <i>Physical Review A</i> , 2007, 75, .	1.0	200
88	Sequential Generation of Entangled Multiqubit States. <i>Physical Review Letters</i> , 2005, 95, 110503.	2.9	198
89	Squeezing and Entanglement of Atomic Beams. <i>Physical Review Letters</i> , 2000, 85, 3991-3994.	2.9	197
90	Entangling Operations and Their Implementation Using a Small Amount of Entanglement. <i>Physical Review Letters</i> , 2001, 86, 544-547.	2.9	196

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91	Preparation of macroscopic superpositions in many-atom systems. <i>Physical Review A</i> , 1994, 50, R2799-R2802.	1.0	194
92	Creation of Dark Solitons and Vortices in Bose-Einstein Condensates. <i>Physical Review Letters</i> , 1998, 80, 2972-2975.	2.9	194
93	Quantum gates with neutral atoms: Controlling collisional interactions in time-dependent traps. <i>Physical Review A</i> , 2000, 61, .	1.0	190
94	Scalable architecture for a room temperature solid-state quantum information processor. <i>Nature Communications</i> , 2012, 3, 800.	5.8	190
95	Optically levitating dielectrics in the quantum regime: Theory and protocols. <i>Physical Review A</i> , 2011, 83, .	1.0	187
96	Localizable entanglement. <i>Physical Review A</i> , 2005, 71, .	1.0	186
97	Cold-Atom Quantum Simulator for SU(2) Yang-Mills Lattice Gauge Theory. <i>Physical Review Letters</i> , 2013, 110, 125304.	2.9	185
98	Schemes for atomic-state teleportation. <i>Physical Review A</i> , 1994, 50, R4441-R4444.	1.0	184
99	Continuous Matrix Product States for Quantum Fields. <i>Physical Review Letters</i> , 2010, 104, 190405.	2.9	184
100	Simulating Compact Quantum Electrodynamics with Ultracold Atoms: Probing Confinement and Nonperturbative Effects. <i>Physical Review Letters</i> , 2012, 109, 125302.	2.9	184
101	Entanglement Purification of Gaussian Continuous Variable Quantum States. <i>Physical Review Letters</i> , 2000, 84, 4002-4005.	2.9	183
102	Atomic Quantum Gases in Kagomé Lattices. <i>Physical Review Letters</i> , 2004, 93, 030601.	2.9	183
103	Computational Complexity of Projected Entangled Pair States. <i>Physical Review Letters</i> , 2007, 98, 140506.	2.9	179
104	Photonic Channels for Quantum Communication. <i>Science</i> , 1998, 279, 205-208.	6.0	177
105	Creation of a Molecular Condensate by Dynamically Melting a Mott Insulator. <i>Physical Review Letters</i> , 2002, 89, 040402.	2.9	177
106	Entanglement percolation in quantum networks. <i>Nature Physics</i> , 2007, 3, 256-259.	6.5	173
107	Fermionic projected entangled pair states. <i>Physical Review A</i> , 2010, 81, .	1.0	170
108	Separability properties of three-mode Gaussian states. <i>Physical Review A</i> , 2001, 64, .	1.0	168

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109	Distillability and partial transposition in bipartite systems. <i>Physical Review A</i> , 2000, 61, .	1.0	165
110	String Order and Symmetries in Quantum Spin Lattices. <i>Physical Review Letters</i> , 2008, 100, 167202.	2.9	163
111	Spin Squeezing Inequalities and Entanglement of NQubit States. <i>Physical Review Letters</i> , 2005, 95, 120502.	2.9	161
112	Neural-Network Quantum States, String-Bond States, and Chiral Topological States. <i>Physical Review X</i> , 2018, 8, .	2.8	161
113	Rényi Entropies from Random Quenches in Atomic Hubbard and Spin Models. <i>Physical Review Letters</i> , 2018, 120, 050406.	2.9	159
114	Universal Quantum Transducers Based on Surface Acoustic Waves. <i>Physical Review X</i> , 2015, 5, .	2.8	154
115	Entanglement Criteria for All Bipartite Gaussian States. <i>Physical Review Letters</i> , 2001, 87, 167904.	2.9	153
116	Renormalization-Group Transformations on Quantum States. <i>Physical Review Letters</i> , 2005, 94, 140601.	2.9	150
117	Effective spin quantum phases in systems of trapped ions. <i>Physical Review A</i> , 2005, 72, .	1.0	150
118	Quantum Chaos in an Ion Trap: The Delta-Kicked Harmonic Oscillator. <i>Physical Review Letters</i> , 1997, 79, 4790-4793.	2.9	149
119	Quantum simulations of gauge theories with ultracold atoms: Local gauge invariance from angular-momentum conservation. <i>Physical Review A</i> , 2013, 88, .	1.0	148
120	Quantum Benchmark for Storage and Transmission of Coherent States. <i>Physical Review Letters</i> , 2005, 94, 150503.	2.9	147
121	Continuous observation of interference fringes from Bose condensates. <i>Physical Review A</i> , 1996, 54, R3714-R3717.	1.0	146
122	Entanglement Capabilities of Nonlocal Hamiltonians. <i>Physical Review Letters</i> , 2001, 87, 137901.	2.9	141
123	Characterization of separable states and entanglement witnesses. <i>Physical Review A</i> , 2001, 63, .	1.0	139
124	Unconventional quantum optics in topological waveguide QED. <i>Science Advances</i> , 2019, 5, eaaw0297.	4.7	139
125	Theory of an atom laser. <i>Physical Review A</i> , 1996, 54, R1757-R1760.	1.0	138
126	The mass spectrum of the Schwinger model with matrix product states. <i>Journal of High Energy Physics</i> , 2013, 2013, 1.	1.6	138

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127	Multiphoton-scattering theory and generalized master equations. <i>Physical Review A</i> , 2015, 92, .	1.0	137
128	Unconditional Two-Mode Squeezing of Separated Atomic Ensembles. <i>Physical Review Letters</i> , 2006, 96, 053602.	2.9	135
129	Variational Matrix Product Operators for the Steady State of Dissipative Quantum Systems. <i>Physical Review Letters</i> , 2015, 114, 220601.	2.9	134
130	Gaussian entanglement of formation. <i>Physical Review A</i> , 2004, 69, .	1.0	130
131	Dissipatively driven entanglement of two macroscopic atomic ensembles. <i>Physical Review A</i> , 2011, 83, .	1.0	130
132	Separability in 2^N -Ncomposite quantum systems. <i>Physical Review A</i> , 2000, 61, .	1.0	129
133	Quantum dynamics of propagating photons with strong interactions: a generalized input-output formalism. <i>New Journal of Physics</i> , 2015, 17, 113001.	1.2	129
134	Quantum collapse and revival in the motion of a single trapped ion. <i>Physical Review A</i> , 1994, 49, 1202-1207.	1.0	128
135	Reflections upon separability and distillability. <i>Journal of Modern Optics</i> , 2002, 49, 1399-1418.	0.6	128
136	Operational criterion and constructive checks for the separability of low-rank density matrices. <i>Physical Review A</i> , 2000, 62, .	1.0	124
137	Optimal Purification of Single Qubits. <i>Physical Review Letters</i> , 1999, 82, 4344-4347.	2.9	118
138	Mapping local Hamiltonians of fermions to local Hamiltonians of spins. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, P09012-P09012.	0.9	118
139	Separable States Can Be Used To Distribute Entanglement. <i>Physical Review Letters</i> , 2003, 91, 037902.	2.9	117
140	Self-Organization of Atoms along a Nanophotonic Waveguide. <i>Physical Review Letters</i> , 2013, 110, 113606.	2.9	117
141	Restricted Boltzmann machines in quantum physics. <i>Nature Physics</i> , 2019, 15, 887-892.	6.5	117
142	Interference of Bose condensates. <i>Physical Review A</i> , 1996, 54, 2185-2196.	1.0	116
143	Quasi-Many-Body Localization in Translation-Invariant Systems. <i>Physical Review Letters</i> , 2016, 117, 240601.	2.9	116
144	Matrix Product States for Dynamical Simulation of Infinite Chains. <i>Physical Review Letters</i> , 2009, 102, 240603.	2.9	115

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145	Algorithms for finite projected entangled pair states. <i>Physical Review B</i> , 2014, 90, .	1.1	115
146	Holonomic quantum computation with neutral atoms. <i>Physical Review A</i> , 2002, 66, .	1.0	113
147	Bose-Einstein Condensation and Strong-Correlation Behavior of Phonons in Ion Traps. <i>Physical Review Letters</i> , 2004, 93, 263602.	2.9	113
148	Resonating valence bond states in the PEPS formalism. <i>Physical Review B</i> , 2012, 86, .	1.1	111
149	Cold Atom Simulation of Interacting Relativistic Quantum Field Theories. <i>Physical Review Letters</i> , 2010, 105, 190403.	2.9	110
150	Dissipation-induced hard-core boson gas in an optical lattice. <i>New Journal of Physics</i> , 2009, 11, 013053.	1.2	108
151	Nanoplasmonic Lattices for Ultracold Atoms. <i>Physical Review Letters</i> , 2012, 109, 235309.	2.9	108
152	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.	3.3	108
153	Quantum computing with neutral atoms. <i>Physics Today</i> , 2017, 70, 44-50.	0.3	108
154	Quantum Phase Transitions in Matrix Product Systems. <i>Physical Review Letters</i> , 2006, 97, 110403.	2.9	107
155	Hawking Radiation from an Acoustic Black Hole on an Ion Ring. <i>Physical Review Letters</i> , 2010, 104, 250403.	2.9	107
156	Stability and collective excitations of a two-component Bose-Einstein condensed gas: A moment approach. <i>Physical Review A</i> , 1997, 56, 2978-2983.	1.0	106
157	Three-dimensional theory for interaction between atomic ensembles and free-space light. <i>Physical Review A</i> , 2002, 66, .	1.0	106
158	Quantum memories based on engineered dissipation. <i>Physical Review A</i> , 2011, 83, .	1.0	106
159	Quantum Gates with Trapped Ions. <i>Physical Review Letters</i> , 1998, 81, 1322-1325.	2.9	105
160	Topological and entanglement properties of resonating valence bond wave functions. <i>Physical Review B</i> , 2012, 86, .	1.1	105
161	Collective generation of quantum states of light by entangled atoms. <i>Physical Review A</i> , 2008, 78, .	1.0	104
162	Laser cooling of trapped three-level ions: Designing two-level systems for sideband cooling. <i>Physical Review A</i> , 1994, 49, 2771-2779.	1.0	103

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163	Exploring frustrated spin systems using projected entangled pair states. <i>Physical Review B</i> , 2009, 79, .	1.1	103
164	Defect-Suppressed Atomic Crystals in an Optical Lattice. <i>Physical Review Letters</i> , 2003, 91, 110403.	2.9	102
165	Quantum random networks. <i>Nature Physics</i> , 2010, 6, 539-543.	6.5	102
166	Motion tomography of a single trapped ion. <i>Physical Review A</i> , 1996, 53, R1966-R1969.	1.0	101
167	Variational matrix-product-state approach to quantum impurity models. <i>Physical Review B</i> , 2009, 80, .	1.1	101
168	Variational matrix product ansatz for dispersion relations. <i>Physical Review B</i> , 2012, 85, .	1.1	101
169	Matrix product unitaries: structure, symmetries, and topological invariants. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017, 2017, 083105.	0.9	101
170	Exact dynamics in dual-unitary quantum circuits. <i>Physical Review B</i> , 2020, 101, .	1.1	101
171	Entanglement in fermionic systems. <i>Physical Review A</i> , 2007, 76, .	1.0	100
172	Mesoscopic spin-boson models of trapped ions. <i>Physical Review A</i> , 2008, 78, .	1.0	99
173	Quantum circuits for strongly correlated quantum systems. <i>Physical Review A</i> , 2009, 79, .	1.0	99
174	Infinite matrix product states, conformal field theory, and the Haldane-Shastry model. <i>Physical Review B</i> , 2010, 81, .	1.1	99
175	Trapped ions in the strong-excitation regime: Ion interferometry and nonclassical states. <i>Physical Review A</i> , 1996, 54, 1532-1540.	1.0	98
176	Simulating $T_j \text{ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Td}$ (display="ir Lattice QED with Dynamical Matter Using Ultracold Atoms. <i>Physical Review Letters</i> , 2013, 110, 055302.	2.9	98
177	Quantum communication with dark photons. <i>Physical Review A</i> , 1999, 59, 2659-2664.	1.0	97
178	Nonlinear matter wave dynamics with a chaotic potential. <i>Physical Review A</i> , 2000, 62, .	1.0	96
179	New Frontiers in Quantum Information With Atoms and Ions. <i>Physics Today</i> , 2004, 57, 38-44.	0.3	96
180	Simulation of Quantum Many-Body Systems with Strings of Operators and Monte Carlo Tensor Contractions. <i>Physical Review Letters</i> , 2008, 100, 040501.	2.9	96

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181	Quantum computing with neutral atoms. <i>Journal of Modern Optics</i> , 2000, 47, 415-451.	0.6	95
182	Light-matter quantum interface. <i>Physical Review A</i> , 2004, 70, .	1.0	95
183	Quantum Manipulation of Trapped Ions in Two Dimensional Coulomb Crystals. <i>Physical Review Letters</i> , 2006, 96, 250501.	2.9	95
184	Topological Order in the Projected Entangled-Pair States Formalism: Transfer Operator and Boundary Hamiltonians. <i>Physical Review Letters</i> , 2013, 111, 090501.	2.9	94
185	Entanglement Cost of Bipartite Mixed States. <i>Physical Review Letters</i> , 2002, 89, 027901.	2.9	93
186	Noise-driven dynamics and phase transitions in fermionic systems. <i>Physical Review A</i> , 2013, 87, .	1.0	93
187	Deterministic Generation of Arbitrary Photonic States Assisted by Dissipation. <i>Physical Review Letters</i> , 2015, 115, 163603.	2.9	93
188	Coherent control of trapped ions using off-resonant lasers. <i>Physical Review A</i> , 2005, 71, .	1.0	92
189	Creation, Manipulation, and Detection of Abelian and Non-Abelian Anyons in Optical Lattices. <i>Physical Review Letters</i> , 2008, 101, 260501.	2.9	90
190	Bound States in Boson Impurity Models. <i>Physical Review X</i> , 2016, 6, .	2.8	90
191	Digital lattice gauge theories. <i>Physical Review A</i> , 2017, 95, .	1.0	90
192	Effective Size of Certain Macroscopic Quantum Superpositions. <i>Physical Review Letters</i> , 2002, 89, 210402.	2.9	88
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