

Juan Ignacio Cirac Sasturin

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577
papers

64,280
citations

119
h-index

241
g-index

614
ext. papers

73,163
ext. citations

5.8
avg, IF

8.06
L-index

#	Paper	IF	Citations
577	Cold Bosonic Atoms in Optical Lattices. <i>Physical Review Letters</i> , 1998 , 81, 3108-3111	7.4	2799
576	Quantum Computations with Cold Trapped Ions. <i>Physical Review Letters</i> , 1995 , 74, 4091-4094	7.4	2584
575	Long-distance quantum communication with atomic ensembles and linear optics. <i>Nature</i> , 2001 , 414, 413-8	50.4	2264
574	Three qubits can be entangled in two inequivalent ways. <i>Physical Review A</i> , 2000 , 62,	2.6	2203
573	Quantum Repeaters: The Role of Imperfect Local Operations in Quantum Communication. <i>Physical Review Letters</i> , 1998 , 81, 5932-5935	7.4	1957
572	Quantum State Transfer and Entanglement Distribution among Distant Nodes in a Quantum Network. <i>Physical Review Letters</i> , 1997 , 78, 3221-3224	7.4	1479
571	Inseparability criterion for continuous variable systems. <i>Physical Review Letters</i> , 2000 , 84, 2722-5	7.4	1439
570	Tonks-Girardeau gas of ultracold atoms in an optical lattice. <i>Nature</i> , 2004 , 429, 277-81	50.4	1259
569	Dipole blockade and quantum information processing in mesoscopic atomic ensembles. <i>Physical Review Letters</i> , 2001 , 87, 037901	7.4	1063
568	Fast quantum gates for neutral atoms. <i>Physical Review Letters</i> , 2000 , 85, 2208-11	7.4	968
567	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	18.4	960
566	Quantum computation and quantum-state engineering driven by dissipation. <i>Nature Physics</i> , 2009 , 5, 633-636	16.2	816
565	Many-particle entanglement with Bose-Einstein condensates. <i>Nature</i> , 2001 , 409, 63-6	50.4	710
564	Improvement of Frequency Standards with Quantum Entanglement. <i>Physical Review Letters</i> , 1997 , 79, 3865-3868	7.4	664
563	Experimental demonstration of quantum memory for light. <i>Nature</i> , 2004 , 432, 482-6	50.4	629
562	Entanglement of Atoms via Cold Controlled Collisions. <i>Physical Review Letters</i> , 1999 , 82, 1975-1978	7.4	627
561	Decoherence, continuous observation, and quantum computing: A cavity QED model. <i>Physical Review Letters</i> , 1995 , 75, 3788-3791	7.4	622

560	Room-temperature quantum bit memory exceeding one second. <i>Science</i> , 2012 , 336, 1283-6	33.3	580
559	Effective quantum spin systems with trapped ions. <i>Physical Review Letters</i> , 2004 , 92, 207901	7.4	566
558	Matrix product density operators: simulation of finite-temperature and dissipative systems. <i>Physical Review Letters</i> , 2004 , 93, 207204	7.4	564
557	Geometric manipulation of trapped ions for quantum computation. <i>Science</i> , 2001 , 292, 1695-7	33.3	557
556	Machine learning and the physical sciences*. <i>Reviews of Modern Physics</i> , 2019 , 91,	40.5	520
555	Majorana fermions in equilibrium and in driven cold-atom quantum wires. <i>Physical Review Letters</i> , 2011 , 106, 220402	7.4	501
554	Quantum Reservoir Engineering with Laser Cooled Trapped Ions. <i>Physical Review Letters</i> , 1996 , 77, 4728-4731	47.31	495
553	Optimization of entanglement witnesses. <i>Physical Review A</i> , 2000 , 62,	2.6	480
552	Quantum teleportation between light and matter. <i>Nature</i> , 2006 , 443, 557-60	50.4	473
551	Complete Characterization of a Quantum Process: The Two-Bit Quantum Gate. <i>Physical Review Letters</i> , 1997 , 78, 390-393	7.4	454
550	Quantum repeaters based on entanglement purification. <i>Physical Review A</i> , 1999 , 59, 169-181	2.6	446
549	Sonic analog of gravitational black holes in bose-einstein condensates. <i>Physical Review Letters</i> , 2000 , 85, 4643-7	7.4	434
548	Classifying quantum phases using matrix product states and projected entangled pair states. <i>Physical Review B</i> , 2011 , 84,	3.3	426
547	Creation of entangled states of distant atoms by interference. <i>Physical Review A</i> , 1999 , 59, 1025-1033	2.6	405
546	Matrix product states represent ground states faithfully. <i>Physical Review B</i> , 2006 , 73,	3.3	403
545	Assessing non-Markovian quantum dynamics. <i>Physical Review Letters</i> , 2008 , 101, 150402	7.4	402
544	Density matrix renormalization group and periodic boundary conditions: a quantum information perspective. <i>Physical Review Letters</i> , 2004 , 93, 227205	7.4	398
543	Characterization of Gaussian operations and distillation of Gaussian states. <i>Physical Review A</i> , 2002 , 66,	2.6	392

542	A scalable quantum computer with ions in an array of microtraps. <i>Nature</i> , 2000 , 404, 579-81	50.4	378
541	Entanglement generated by dissipation and steady state entanglement of two macroscopic objects. <i>Physical Review Letters</i> , 2011 , 107, 080503	7.4	375
540	High-temperature superfluidity of fermionic atoms in optical lattices. <i>Physical Review Letters</i> , 2002 , 89, 220407	7.4	360
539	Area laws in quantum systems: mutual information and correlations. <i>Physical Review Letters</i> , 2008 , 100, 070502	7.4	354
538	Entanglement versus correlations in spin systems. <i>Physical Review Letters</i> , 2004 , 92, 027901	7.4	345
537	Criticality, the area law, and the computational power of projected entangled pair states. <i>Physical Review Letters</i> , 2006 , 96, 220601	7.4	340
536	Distributed quantum computation over noisy channels. <i>Physical Review A</i> , 1999 , 59, 4249-4254	2.6	335
535	Quantum superposition states of Bose-Einstein condensates. <i>Physical Review A</i> , 1998 , 57, 1208-1218	2.6	331
534	Classical simulation of infinite-size quantum lattice systems in two spatial dimensions. <i>Physical Review Letters</i> , 2008 , 101, 250602	7.4	310
533	Low Energy Excitations of a Bose-Einstein Condensate: A Time-Dependent Variational Analysis. <i>Physical Review Letters</i> , 1996 , 77, 5320-5323	7.4	310
532	Large quantum superpositions and interference of massive nanometer-sized objects. <i>Physical Review Letters</i> , 2011 , 107, 020405	7.4	305
531	Diverging entanglement length in gapped quantum spin systems. <i>Physical Review Letters</i> , 2004 , 92, 087201	7.4	296
530	Time-dependent variational principle for quantum lattices. <i>Physical Review Letters</i> , 2011 , 107, 070601	7.4	294
529	Quantum correlations in two-fermion systems. <i>Physical Review A</i> , 2001 , 64,	2.6	293
528	Toward quantum superposition of living organisms. <i>New Journal of Physics</i> , 2010 , 12, 033015	2.9	287
527	Dynamics of Bose-Einstein condensates: Variational solutions of the Gross-Pitaevskii equations. <i>Physical Review A</i> , 1997 , 56, 1424-1432	2.6	282
526	Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009 , 42, 504004	2	275
525	Optimal creation of entanglement using a two-qubit gate. <i>Physical Review A</i> , 2001 , 63,	2.6	255

524	Quantum communication between atomic ensembles using coherent light. <i>Physical Review Letters</i> , 2000 , 85, 5643-6	7.4	248
523	Strong dissipation inhibits losses and induces correlations in cold molecular gases. <i>Science</i> , 2008 , 320, 1329-31	33.3	235
522	"Dark" squeezed states of the motion of a trapped ion. <i>Physical Review Letters</i> , 1993 , 70, 556-559	7.4	235
521	De Finetti representation theorem for infinite-dimensional quantum systems and applications to quantum cryptography. <i>Physical Review Letters</i> , 2009 , 102, 110504	7.4	229
520	Quantum information processing and communication. <i>European Physical Journal D</i> , 2005 , 36, 203-228	1.3	228
519	Laser cooling of trapped ions in a standing wave. <i>Physical Review A</i> , 1992 , 46, 2668-2681	2.6	222
518	Entanglement of formation for symmetric Gaussian states. <i>Physical Review Letters</i> , 2003 , 91, 107901	7.4	218
517	Separability and Distillability of Multiparticle Quantum Systems. <i>Physical Review Letters</i> , 1999 , 83, 3562-3565	7.4	217
516	Preparation of Fock states by observation of quantum jumps in an ion trap. <i>Physical Review Letters</i> , 1993 , 70, 762-765	7.4	213
515	Valence-bond states for quantum computation. <i>Physical Review A</i> , 2004 , 70,	2.6	210
514	Classification of multiqubit mixed states: Separability and distillability properties. <i>Physical Review A</i> , 2000 , 61,	2.6	205
513	Extremality of Gaussian quantum states. <i>Physical Review Letters</i> , 2006 , 96, 080502	7.4	203
512	1/2-anyons in small atomic Bose-Einstein condensates. <i>Physical Review Letters</i> , 2001 , 87, 010402	7.4	198
511	Many-particle entanglement in two-component Bose-Einstein condensates. <i>Physical Review A</i> , 2003 , 67,	2.6	194
510	Strong and weak thermalization of infinite nonintegrable quantum systems. <i>Physical Review Letters</i> , 2011 , 106, 050405	7.4	193
509	Ideal Quantum Communication over Noisy Channels: A Quantum Optical Implementation. <i>Physical Review Letters</i> , 1997 , 78, 4293-4296	7.4	191
508	Implementation of spin Hamiltonians in optical lattices. <i>Physical Review Letters</i> , 2004 , 93, 250405	7.4	189
507	Entropy scaling and simulability by matrix product states. <i>Physical Review Letters</i> , 2008 , 100, 030504	7.4	186

506	Quantum memory for nonstationary light fields based on controlled reversible inhomogeneous broadening. <i>Physical Review A</i> , 2006 , 73,	2.6	184
505	Creation of Dark Solitons and Vortices in Bose-Einstein Condensates. <i>Physical Review Letters</i> , 1998 , 80, 2972-2975	7.4	183
504	Variational study of hard-core bosons in a two-dimensional optical lattice using projected entangled pair states. <i>Physical Review A</i> , 2007 , 75,	2.6	182
503	Preparation of macroscopic superpositions in many-atom systems. <i>Physical Review A</i> , 1994 , 50, R2799-R2802	2.6	182
502	Entangling operations and their implementation using a small amount of entanglement. <i>Physical Review Letters</i> , 2001 , 86, 544-7	7.4	181
501	Entanglement spectrum and boundary theories with projected entangled-pair states. <i>Physical Review B</i> , 2011 , 83,	3.3	178
500	PEPS as ground states: Degeneracy and topology. <i>Annals of Physics</i> , 2010 , 325, 2153-2192	2.5	178
499	Discrete entanglement distribution with squeezed light. <i>Physical Review Letters</i> , 2004 , 92, 013602	7.4	177
498	Squeezing and entanglement of atomic beams. <i>Physical Review Letters</i> , 2000 , 85, 3991-4	7.4	177
497	Schemes for atomic-state teleportation. <i>Physical Review A</i> , 1994 , 50, R4441-R4444	2.6	177
496	Speed optimized two-qubit gates with laser coherent control techniques for ion trap quantum computing. <i>Physical Review Letters</i> , 2003 , 91, 157901	7.4	176
495	Quantum simulations of lattice gauge theories using ultracold atoms in optical lattices. <i>Reports on Progress in Physics</i> , 2016 , 79, 014401	14.4	172
494	Atomic quantum gases in Kagomí lattices. <i>Physical Review Letters</i> , 2004 , 93, 030601	7.4	172
493	Dividing Quantum Channels. <i>Communications in Mathematical Physics</i> , 2008 , 279, 147-168	2	171
492	Matrix product operator representations. <i>New Journal of Physics</i> , 2010 , 12, 025012	2.9	170
491	Subwavelength vacuum lattices and atom-atom interactions in two-dimensional photonic crystals. <i>Nature Photonics</i> , 2015 , 9, 320-325	33.9	169
490	Quantum gates with neutral atoms: Controlling collisional interactions in time-dependent traps. <i>Physical Review A</i> , 2000 , 61,	2.6	167
489	Sonic black holes in dilute Bose-Einstein condensates. <i>Physical Review A</i> , 2001 , 63,	2.6	164

488	Creation of a molecular condensate by dynamically melting a Mott insulator. <i>Physical Review Letters</i> , 2002 , 89, 040402	7.4	163
487	Dissipative phase transition in a central spin system. <i>Physical Review A</i> , 2012 , 86,	2.6	159
486	Photonic channels for quantum communication. <i>Science</i> , 1998 , 279, 205-8	33.3	158
485	Localizable entanglement. <i>Physical Review A</i> , 2005 , 71,	2.6	158
484	Entanglement purification of gaussian continuous variable quantum states. <i>Physical Review Letters</i> , 2000 , 84, 4002-5	7.4	158
483	Scalable architecture for a room temperature solid-state quantum information processor. <i>Nature Communications</i> , 2012 , 3, 800	17.4	157
482	Optically levitating dielectrics in the quantum regime: Theory and protocols. <i>Physical Review A</i> , 2011 , 83,	2.6	155
481	Separability properties of three-mode Gaussian states. <i>Physical Review A</i> , 2001 , 64,	2.6	150
480	Continuous matrix product states for quantum fields. <i>Physical Review Letters</i> , 2010 , 104, 190405	7.4	147
479	Spin squeezing inequalities and entanglement of N qubit states. <i>Physical Review Letters</i> , 2005 , 95, 120502	7.4	144
478	Distillability and partial transposition in bipartite systems. <i>Physical Review A</i> , 2000 , 61,	2.6	142
477	Continuous observation of interference fringes from Bose condensates. <i>Physical Review A</i> , 1996 , 54, R3714-R3717	2.6	141
476	Simulating compact quantum electrodynamics with ultracold atoms: probing confinement and nonperturbative effects. <i>Physical Review Letters</i> , 2012 , 109, 125302	7.4	137
475	Sequential generation of entangled multiqubit states. <i>Physical Review Letters</i> , 2005 , 95, 110503	7.4	137
474	Renormalization-group transformations on quantum states. <i>Physical Review Letters</i> , 2005 , 94, 140601	7.4	135
473	Fermionic projected entangled pair states. <i>Physical Review A</i> , 2010 , 81,	2.6	134
472	Quantum Chaos in an Ion Trap: The Delta-Kicked Harmonic Oscillator. <i>Physical Review Letters</i> , 1997 , 79, 4790-4793	7.4	134
471	Effective spin quantum phases in systems of trapped ions. <i>Physical Review A</i> , 2005 , 72,	2.6	134

470	Entanglement percolation in quantum networks. <i>Nature Physics</i> , 2007 , 3, 256-259	16.2	133
469	Entanglement criteria for all bipartite Gaussian states. <i>Physical Review Letters</i> , 2001 , 87, 167904	7.4	132
468	Theory of an atom laser. <i>Physical Review A</i> , 1996 , 54, R1757-R1760	2.6	132
467	Entanglement capabilities of nonlocal Hamiltonians. <i>Physical Review Letters</i> , 2001 , 87, 137901	7.4	130
466	Computational complexity of projected entangled pair states. <i>Physical Review Letters</i> , 2007 , 98, 140506	7.4	127
465	Cold-atom quantum simulator for SU(2) Yang-Mills lattice gauge theory. <i>Physical Review Letters</i> , 2013 , 110, 125304	7.4	126
464	String order and symmetries in quantum spin lattices. <i>Physical Review Letters</i> , 2008 , 100, 167202	7.4	126
463	Characterization of separable states and entanglement witnesses. <i>Physical Review A</i> , 2001 , 63,	2.6	123
462	Quantum benchmark for storage and transmission of coherent states. <i>Physical Review Letters</i> , 2005 , 94, 150503	7.4	122
461	Separability in 2^N composite quantum systems. <i>Physical Review A</i> , 2000 , 61,	2.6	121
460	Quantum collapse and revival in the motion of a single trapped ion. <i>Physical Review A</i> , 1994 , 49, 1202-1207	2.6	120
459	Unconditional two-mode squeezing of separated atomic ensembles. <i>Physical Review Letters</i> , 2006 , 96, 053602	7.4	119
458	Reflections upon separability and distillability. <i>Journal of Modern Optics</i> , 2002 , 49, 1399-1418	1.1	113
457	The 2019 surface acoustic waves roadmap. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 353001	3	112
456	Interference of Bose condensates. <i>Physical Review A</i> , 1996 , 54, 2185-2196	2.6	111
455	Operational criterion and constructive checks for the separability of low-rank density matrices. <i>Physical Review A</i> , 2000 , 62,	2.6	110
454	Quantum simulations of gauge theories with ultracold atoms: Local gauge invariance from angular-momentum conservation. <i>Physical Review A</i> , 2013 , 88,	2.6	109
453	Dissipatively driven entanglement of two macroscopic atomic ensembles. <i>Physical Review A</i> , 2011 , 83,	2.6	108

452	Gaussian entanglement of formation. <i>Physical Review A</i> , 2004 , 69,	2.6	108
451	Neural-Network Quantum States, String-Bond States, and Chiral Topological States. <i>Physical Review X</i> , 2018 , 8,	9.1	104
450	Multiphoton-scattering theory and generalized master equations. <i>Physical Review A</i> , 2015 , 92,	2.6	104
449	Universal Quantum Transducers Based on Surface Acoustic Waves. <i>Physical Review X</i> , 2015 , 5,	9.1	102
448	Optimal Purification of Single Qubits. <i>Physical Review Letters</i> , 1999 , 82, 4344-4347	7.4	102
447	Separable States can be used to distribute entanglement. <i>Physical Review Letters</i> , 2003 , 91, 037902	7.4	100
446	Variational Matrix Product Operators for the Steady State of Dissipative Quantum Systems. <i>Physical Review Letters</i> , 2015 , 114, 220601	7.4	99
445	Holonomic quantum computation with neutral atoms. <i>Physical Review A</i> , 2002 , 66,	2.6	98
444	Three-dimensional theory for interaction between atomic ensembles and free-space light. <i>Physical Review A</i> , 2002 , 66,	2.6	98
443	Self-organization of atoms along a nanophotonic waveguide. <i>Physical Review Letters</i> , 2013 , 110, 113606	7.4	97
442	Stability and collective excitations of a two-component Bose-Einstein condensed gas: A moment approach. <i>Physical Review A</i> , 1997 , 56, 2978-2983	2.6	97
441	Nanoplasmonic lattices for ultracold atoms. <i>Physical Review Letters</i> , 2012 , 109, 235309	7.4	96
440	Motion tomography of a single trapped ion. <i>Physical Review A</i> , 1996 , 53, R1966-R1969	2.6	96
439	Defect-suppressed atomic crystals in an optical lattice. <i>Physical Review Letters</i> , 2003 , 91, 110403	7.4	95
438	Quantum dynamics of propagating photons with strong interactions: a generalized input-output formalism. <i>New Journal of Physics</i> , 2015 , 17, 113001	2.9	94
437	Quantum phase transitions in matrix product systems. <i>Physical Review Letters</i> , 2006 , 97, 110403	7.4	94
436	The mass spectrum of the Schwinger model with matrix product states. <i>Journal of High Energy Physics</i> , 2013 , 2013, 1	5.4	93
435	Cold atom simulation of interacting relativistic quantum field theories. <i>Physical Review Letters</i> , 2010 , 105, 190403	7.4	93

434	Laser cooling of trapped three-level ions: Designing two-level systems for sideband cooling. <i>Physical Review A</i> , 1994 , 49, 2771-2779	2.6	93
433	Topological and entanglement properties of resonating valence bond wave functions. <i>Physical Review B</i> , 2012 , 86,	3.3	92
432	Exploring frustrated spin systems using projected entangled pair states. <i>Physical Review B</i> , 2009 , 79,	3.3	91
431	Bose-Einstein condensation and strong-correlation behavior of phonons in ion traps. <i>Physical Review Letters</i> , 2004 , 93, 263602	7.4	91
430	Quantum Gates with Hot Trapped Ions. <i>Physical Review Letters</i> , 1998 , 81, 1322-1325	7.4	91
429	Quantum communication with dark photons. <i>Physical Review A</i> , 1999 , 59, 2659-2664	2.6	91
428	Nonlinear matter wave dynamics with a chaotic potential. <i>Physical Review A</i> , 2000 , 62,	2.6	90
427	Entropy Entropies from Random Quenches in Atomic Hubbard and Spin Models. <i>Physical Review Letters</i> , 2018 , 120, 050406	7.4	89
426	Infinite matrix product states, conformal field theory, and the Haldane-Shastry model. <i>Physical Review B</i> , 2010 , 81,	3.3	89
425	Hawking radiation from an acoustic black hole on an ion ring. <i>Physical Review Letters</i> , 2010 , 104, 250403	7.4	89
424	Trapped ions in the strong-excitation regime: Ion interferometry and nonclassical states. <i>Physical Review A</i> , 1996 , 54, 1532-1540	2.6	89
423	Variational matrix-product-state approach to quantum impurity models. <i>Physical Review B</i> , 2009 , 80,	3.3	88
422	Collective generation of quantum states of light by entangled atoms. <i>Physical Review A</i> , 2008 , 78,	2.6	88
421	Quantum manipulation of trapped ions in two dimensional coulomb crystals. <i>Physical Review Letters</i> , 2006 , 96, 250501	7.4	87
420	Resonating valence bond states in the PEPS formalism. <i>Physical Review B</i> , 2012 , 86,	3.3	85
419	Quantum memories based on engineered dissipation. <i>Physical Review A</i> , 2011 , 83,	2.6	85
418	Mesoscopic spin-boson models of trapped ions. <i>Physical Review A</i> , 2008 , 78,	2.6	85
417	Simulating lattice gauge theories within quantum technologies. <i>European Physical Journal D</i> , 2020 , 74, 1	1.3	84

416	Quasi-Many-Body Localization in Translation-Invariant Systems. <i>Physical Review Letters</i> , 2016 , 117, 2406014	7.4	84
415	New Frontiers in Quantum Information With Atoms and Ions. <i>Physics Today</i> , 2004 , 57, 38-44	0.9	83
414	Light-matter quantum interface. <i>Physical Review A</i> , 2004 , 70,	2.6	83
413	Effective size of certain macroscopic quantum superpositions. <i>Physical Review Letters</i> , 2002 , 89, 210402	7.4	82
412	Matrix product unitaries: structure, symmetries, and topological invariants. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017 , 2017, 083105	1.9	81
411	Simulation of quantum many-body systems with strings of operators and Monte Carlo tensor contractions. <i>Physical Review Letters</i> , 2008 , 100, 040501	7.4	81
410	Coherent control of trapped ions using off-resonant lasers. <i>Physical Review A</i> , 2005 , 71,	2.6	81
409	Quantum computing with neutral atoms. <i>Journal of Modern Optics</i> , 2000 , 47, 415-451	1.1	81
408	Quantum random networks. <i>Nature Physics</i> , 2010 , 6, 539-543	16.2	80
407	Dissipation-induced hard-core boson gas in an optical lattice. <i>New Journal of Physics</i> , 2009 , 11, 013053	2.9	80
406	Entanglement in fermionic systems. <i>Physical Review A</i> , 2007 , 76,	2.6	79
405	Matrix product states for dynamical simulation of infinite chains. <i>Physical Review Letters</i> , 2009 , 102, 240603	7.4	78
404	Coherent eavesdropping strategies for the four state quantum cryptography protocol. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1997 , 229, 1-7	2.3	78
403	Algorithms for finite projected entangled pair states. <i>Physical Review B</i> , 2014 , 90,	3.3	77
402	Variational matrix product ansatz for dispersion relations. <i>Physical Review B</i> , 2012 , 85,	3.3	77
401	Entanglement cost of bipartite mixed states. <i>Physical Review Letters</i> , 2002 , 89, 027901	7.4	77
400	Dynamic splitting of a Bose-Einstein condensate. <i>Physical Review A</i> , 2001 , 63,	2.6	77
399	Nonclassical states of motion in a three-dimensional ion trap by adiabatic passage. <i>Physical Review A</i> , 1994 , 49, R3174-R3177	2.6	77

398	Measurement-based measure of the size of macroscopic quantum superpositions. <i>Physical Review A</i> , 2007 , 75,	2.6	76
397	Detecting vacuum entanglement in a linear ion trap. <i>Physical Review Letters</i> , 2005 , 94, 050504	7.4	76
396	Simulating (2+1)-dimensional lattice QED with dynamical matter using ultracold atoms. <i>Physical Review Letters</i> , 2013 , 110, 055302	7.4	75
395	Creation, manipulation, and detection of Abelian and non-Abelian anyons in optical lattices. <i>Physical Review Letters</i> , 2008 , 101, 260501	7.4	75
394	Mapping local Hamiltonians of fermions to local Hamiltonians of spins. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005 , 2005, P09012-P09012	1.9	75
393	Quantum nonlocality in the presence of superselection rules and data hiding protocols. <i>Physical Review Letters</i> , 2003 , 91, 010404	7.4	74
392	Reabsorption of Light by Trapped Atoms. <i>Physical Review Letters</i> , 1998 , 80, 5305-5308	7.4	74
391	Noise-driven dynamics and phase transitions in fermionic systems. <i>Physical Review A</i> , 2013 , 87,	2.6	73
390	Entanglement distillation by dissipation and continuous quantum repeaters. <i>Physical Review Letters</i> , 2011 , 107, 120502	7.4	73
389	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	73
388	Optimal simulation of two-qubit Hamiltonians using general local operations. <i>Physical Review A</i> , 2002 , 66,	2.6	73
387	Topological order in the projected entangled-pair states formalism: transfer operator and boundary Hamiltonians. <i>Physical Review Letters</i> , 2013 , 111, 090501	7.4	71
386	Quantum entanglement theory in the presence of superselection rules. <i>Physical Review A</i> , 2004 , 70,	2.6	70
385	Quantum entanglement in spinor Bose-Einstein condensates. <i>Physical Review A</i> , 2002 , 65,	2.6	70
384	Quantum magnetomechanics with levitating superconducting microspheres. <i>Physical Review Letters</i> , 2012 , 109, 147205	7.4	69
383	Spin dynamics for bosons in an optical lattice. <i>New Journal of Physics</i> , 2003 , 5, 76-76	2.9	69
382	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	11.5	67
381	Nonclassical states and measurement of general motional observables of a trapped ion. <i>Physical Review A</i> , 1997 , 55, 1683-1694	2.6	66

380	Interaction of a two-level atom with a cavity mode in the bad-cavity limit. <i>Physical Review A</i> , 1992 , 46, 4354-4362	2.6	66
379	Approximating Gibbs states of local Hamiltonians efficiently with projected entangled pair states. <i>Physical Review B</i> , 2015 , 91,	3.3	65
378	Quantum circuits for strongly correlated quantum systems. <i>Physical Review A</i> , 2009 , 79,	2.6	65
377	Purifying Two-Bit Quantum Gates and Joint Measurements in Cavity QED. <i>Physical Review Letters</i> , 1997 , 79, 5178-5181	7.4	65
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