Frank Verstraete

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

66 15,886 183 123 h-index g-index citations papers 18,787 6.94 197 5.2 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
183	Variational Optimization of Continuous Matrix Product States <i>Physical Review Letters</i> , 2022 , 128, 0205	0 / 1.4	O
182	Matrix product states and projected entangled pair states: Concepts, symmetries, theorems. <i>Reviews of Modern Physics</i> , 2021 , 93,	40.5	22
181	Matrix product operator symmetries and intertwiners in string-nets with domain walls. <i>SciPost Physics</i> , 2021 , 10,	6.1	6
180	Lattice regularisation and entanglement structure of the Gross-Neveu model. <i>Journal of High Energy Physics</i> , 2021 , 2021, 1	5.4	1
179	Characterizing Topological Order with Matrix Product Operators. <i>Annales Henri Poincare</i> , 2021 , 22, 563-	-5192	4
178	Solving frustrated Ising models using tensor networks. <i>Physical Review Research</i> , 2021 , 3,	3.9	1
177	Real-time scattering of interacting quasiparticles in quantum spin chains. <i>Physical Review Research</i> , 2021 , 3,	3.9	1
176	Tangent-space methods for truncating uniform MPS. SciPost Physics Core, 2021, 4,	3.9	2
175	Efficient matrix product state methods for extracting spectral information on rings and cylinders. <i>Physical Review B</i> , 2021 , 104,	3.3	2
174	Entanglement compression in scale space: From the multiscale entanglement renormalization ansatz to matrix product operators. <i>Physical Review B</i> , 2020 , 102,	3.3	1
173	Spinon confinement and deconfinement in spin-1 chains. <i>Physical Review B</i> , 2020 , 101,	3.3	3
172	Galois Conjugated Tensor Fusion Categories and Nonunitary Conformal Field Theory. <i>Physical Review Letters</i> , 2020 , 124, 120601	7.4	5
171	Restricted Boltzmann Machines for Quantum States with Non-Abelian or Anyonic Symmetries. <i>Physical Review Letters</i> , 2020 , 124, 097201	7.4	25
170	Uncertainty and trade-offs in quantum multiparameter estimation. <i>Journal of Physics A:</i> Mathematical and Theoretical, 2020 , 53, 244001	2	10
169	Simulating lattice gauge theories within quantum technologies. <i>European Physical Journal D</i> , 2020 , 74, 1	1.3	84
168	A Tensor Version of the Quantum Wielandt Theorem. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2019 , 40, 1125-1130	1.5	2
167	Simulating excitation spectra with projected entangled-pair states. <i>Physical Review B</i> , 2019 , 99,	3.3	21

(2017-2019)

166	Three-Legged Tree Tensor Networks with SU(2) and Molecular Point Group Symmetry. <i>Journal of Chemical Theory and Computation</i> , 2019 , 15, 2996-3007	6.4	6
165	Approaching the Kosterlitz-Thouless transition for the classical XY model with tensor networks. <i>Physical Review E</i> , 2019 , 100, 062136	2.4	3
164	Scaling Hypothesis for Matrix Product States. <i>Physical Review Letters</i> , 2019 , 123, 250604	7.4	8
163	Tensor-network approach to phase transitions in string-net models. <i>Physical Review B</i> , 2019 , 100,	3.3	6
162	T3NS: Three-Legged Tree Tensor Network States. <i>Journal of Chemical Theory and Computation</i> , 2018 , 14, 2026-2033	6.4	25
161	Global Anomaly Detection in Two-Dimensional Symmetry-Protected Topological Phases. <i>Physical Review Letters</i> , 2018 , 120, 156601	7.4	7
160	Variational optimization algorithms for uniform matrix product states. <i>Physical Review B</i> , 2018 , 97,	3.3	65
159	Topological nature of spinons and holons: Elementary excitations from matrix product states with conserved symmetries. <i>Physical Review B</i> , 2018 , 97,	3.3	16
158	Fermionic projected entangled-pair states and topological phases. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018 , 51, 025202	2	15
157	Residual entropies for three-dimensional frustrated spin systems with tensor networks. <i>Physical Review E</i> , 2018 , 98,	2.4	18
156	Faster methods for contracting infinite two-dimensional tensor networks. <i>Physical Review B</i> , 2018 , 98,	3.3	28
155	Thermal states as convex combinations of matrix product states. <i>Physical Review B</i> , 2018 , 98,	3.3	5
154	Mapping Topological to Conformal Field Theories through strange Correlators. <i>Physical Review Letters</i> , 2018 , 121, 177203	7:4	13
153	Quasiparticles in Quantum Spin Chains with Long-Range Interactions. <i>Physical Review Letters</i> , 2018 , 121, 090603	7.4	20
152	Anyons and matrix product operator algebras. <i>Annals of Physics</i> , 2017 , 378, 183-233	2.5	48
151	Diagonalizing Transfer Matrices and Matrix Product Operators: A Medley of Exact and Computational Methods. <i>Annual Review of Condensed Matter Physics</i> , 2017 , 8, 355-406	19.7	40
150	Matrix product density operators: Renormalization fixed points and boundary theories. <i>Annals of Physics</i> , 2017 , 378, 100-149	2.5	37
149	Matrix product unitaries: structure, symmetries, and topological invariants. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2017 , 2017, 083105	1.9	81

148	Entanglement phases as holographic duals of anyon condensates. <i>Physical Review B</i> , 2017 , 95,	3.3	19
147	Fermionic matrix product states and one-dimensional topological phases. <i>Physical Review B</i> , 2017 , 95,	3.3	49
146	Bridging Perturbative Expansions with Tensor Networks. <i>Physical Review Letters</i> , 2017 , 119, 070401	7.4	18
145	Real-time simulation of the Schwinger effect with matrix product states. <i>Physical Review D</i> , 2017 , 96,	4.9	36
144	Condensation-driven phase transitions in perturbed string nets. <i>Physical Review B</i> , 2017 , 96,	3.3	10
143	Renormalization Group Flows of Hamiltonians Using Tensor Networks. <i>Physical Review Letters</i> , 2017 , 118, 250602	7.4	34
142	Continuous matrix product states with periodic boundary conditions and an application to atomtronics. <i>Physical Review B</i> , 2017 , 95,	3.3	8
141	Finite-representation approximation of lattice gauge theories at the continuum limit with tensor networks. <i>Physical Review D</i> , 2017 , 95,	4.9	31
140	Quantum Gross-Pitaevskii Equation. SciPost Physics, 2017, 3,	6.1	6
139	Entanglement Rates and the Stability of the Area Law for the Entanglement Entropy. <i>Communications in Mathematical Physics</i> , 2016 , 346, 35-73	2	10
138	Tensor-product state approach to spin-12 square J1🏿 antiferromagnetic Heisenberg model: Evidence for deconfined quantum criticality. <i>Physical Review B</i> , 2016 , 94,	3.3	49
137	Confinement and String Breaking for QED2 in the Hamiltonian Picture. <i>Physical Review X</i> , 2016 , 6,	9.1	35
136	Quasiparticle interactions in frustrated Heisenberg chains. <i>Physical Review B</i> , 2016 , 93,	3.3	6
135	Gradient methods for variational optimization of projected entangled-pair states. <i>Physical Review B</i> , 2016 , 94,	3.3	76
134	Symmetry breaking and the geometry of reduced density matrices. <i>New Journal of Physics</i> , 2016 , 18, 113033	2.9	12
133	Matrix product operators for symmetry-protected topological phases: Gauging and edge theories. <i>Physical Review B</i> , 2016 , 94,	3.3	32
132	Hamiltonian simulation of the Schwinger model at finite temperature. <i>Physical Review D</i> , 2016 , 94,	4.9	33
131	Matrix product state renormalization. <i>Physical Review B</i> , 2016 , 94,	3.3	10

130	Unifying time evolution and optimization with matrix product states. <i>Physical Review B</i> , 2016 , 94,	3.3	238
129	Boundary-field-driven control of discontinuous phase transitions on hyperbolic lattices. <i>Physical Review E</i> , 2016 , 94, 022133	2.4	1
128	Entanglement of Distillation for Lattice Gauge Theories. <i>Physical Review Letters</i> , 2016 , 117, 131602	7.4	31
127	Approximating Gibbs states of local Hamiltonians efficiently with projected entangled pair states. <i>Physical Review B</i> , 2015 , 91,	3.3	65
126	Transfer matrices and excitations with matrix product states. <i>New Journal of Physics</i> , 2015 , 17, 053002	2.9	41
125	Continuum tensor network field states, path integral representations and spatial symmetries. <i>New Journal of Physics</i> , 2015 , 17, 063039	2.9	16
124	Quantum chi-squared and goodness of fit testing. Journal of Mathematical Physics, 2015, 56, 012202	1.2	7
123	Tensor product methods and entanglement optimization for ab initio quantum chemistry. <i>International Journal of Quantum Chemistry</i> , 2015 , 115, 1342-1391	2.1	157
122	Nested algebraic Bethe ansatz for the supersymmetric t model and tensor networks. <i>Physical Review B</i> , 2015 , 91,	3.3	4
121	Excitations and the tangent space of projected entangled-pair states. <i>Physical Review B</i> , 2015 , 92,	3.3	40
120	Gauging Quantum States: From Global to Local Symmetries in Many-Body Systems. <i>Physical Review X</i> , 2015 , 5,	9.1	61
119	Scattering particles in quantum spin chains. <i>Physical Review B</i> , 2015 , 92,	3.3	28
118	Efficient DMFT impurity solver using real-time dynamics with matrix product states. <i>Physical Review B</i> , 2015 , 92,	3.3	34
117	Truncating an exact matrix product state for the XY model: Transfer matrix and its renormalization. <i>Physical Review B</i> , 2015 , 92,	3.3	10
116	Shadows of anyons and the entanglement structure of topological phases. <i>Nature Communications</i> , 2015 , 6, 8284	17.4	44
115	Tree Tensor Network State with Variable Tensor Order: An Efficient Multireference Method for Strongly Correlated Systems. <i>Journal of Chemical Theory and Computation</i> , 2015 , 11, 1027-36	6.4	50
114	Conformal data from finite entanglement scaling. <i>Physical Review B</i> , 2015 , 91,	3.3	39
113	Geometry of matrix product states: Metric, parallel transport, and curvature. <i>Journal of Mathematical Physics</i> , 2014 , 55, 021902	1.2	33

112	Matrix product states for gauge field theories. <i>Physical Review Letters</i> , 2014 , 113, 091601	7.4	88
111	Chebyshev expansion for impurity models using matrix product states. <i>Physical Review B</i> , 2014 , 90,	3.3	40
110	S matrix from matrix product states. <i>Physical Review Letters</i> , 2014 , 112, 257202	7.4	21
109	Edge theories in projected entangled pair state models. <i>Physical Review Letters</i> , 2014 , 112, 036402	7.4	29
108	Faster identification of optimal contraction sequences for tensor networks. <i>Physical Review E</i> , 2014 , 90, 033315	2.4	32
107	Particles, holes, and solitons: a matrix product state approach. <i>Physical Review Letters</i> , 2013 , 111, 02040	0 ≱ .4	28
106	Preparing topological projected entangled pair states on a quantum computer. <i>Physical Review A</i> , 2013 , 88,	2.6	13
105	Variational matrix product ansatz for nonuniform dynamics in the thermodynamic limit. <i>Physical Review B</i> , 2013 , 88,	3.3	21
104	Entanglement renormalization for quantum fields in real space. <i>Physical Review Letters</i> , 2013 , 110, 100	4 9 2 ₄	129
103	Calculus of continuous matrix product states. <i>Physical Review B</i> , 2013 , 88,	3.3	41
102	Post-matrix product state methods: To tangent space and beyond. <i>Physical Review B</i> , 2013 , 88,	2.2	116
		3.3	
101	Entanglement rates and area laws. <i>Physical Review Letters</i> , 2013 , 111, 170501	7·4	44
100	Entanglement rates and area laws. <i>Physical Review Letters</i> , 2013 , 111, 170501 Constructing a gapless spin-liquid state for the spin-1/2 J(1)-J(2) Heisenberg model on a square lattice. <i>Physical Review Letters</i> , 2013 , 111, 037202		84
	Constructing a gapless spin-liquid state for the spin-1/2 J(1)-J(2) Heisenberg model on a square	7.4	
100	Constructing a gapless spin-liquid state for the spin-1/2 J(1)-J(2) Heisenberg model on a square lattice. <i>Physical Review Letters</i> , 2013 , 111, 037202	7·4 7·4	84
100	Constructing a gapless spin-liquid state for the spin-1/2 J(1)-J(2) Heisenberg model on a square lattice. <i>Physical Review Letters</i> , 2013 , 111, 037202 Elementary excitations in gapped quantum spin systems. <i>Physical Review Letters</i> , 2013 , 111, 080401	7·4 7·4	8 ₄
100 99 98	Constructing a gapless spin-liquid state for the spin-1/2 J(1)-J(2) Heisenberg model on a square lattice. <i>Physical Review Letters</i> , 2013 , 111, 037202 Elementary excitations in gapped quantum spin systems. <i>Physical Review Letters</i> , 2013 , 111, 080401 Tree tensor networks and entanglement spectra. <i>Physical Review B</i> , 2013 , 88,	7·4 7·4 7·4 3·3	84 51 14

(2010-2012)

94	Variational matrix product ansatz for dispersion relations. <i>Physical Review B</i> , 2012 , 85,	3.3	77
93	Matrix product states for critical spin chains: Finite-size versus finite-entanglement scaling. <i>Physical Review B</i> , 2012 , 86,	3.3	74
92	Matrix product state based algorithm for determining dispersion relations of quantum spin chains with periodic boundary conditions. <i>Physical Review B</i> , 2012 , 85,	3.3	31
91	Variational numerical renormalization group: bridging the gap between NRG and density matrix renormalization group. <i>Physical Review Letters</i> , 2012 , 108, 067202	7.4	11
90	Quantum state discrimination bounds for finite sample size. <i>Journal of Mathematical Physics</i> , 2012 , 53, 122205	1.2	19
89	Finite-temperature mutual information in a simple phase transition. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012 , 2012, P01023	1.9	56
88	Quantum Metropolis sampling. <i>Nature</i> , 2011 , 471, 87-90	50.4	114
87	Monte Carlo simulation with tensor network states. <i>Physical Review B</i> , 2011 , 83,	3.3	47
86	Time evolution of projected entangled pair states in the single-layer picture. <i>Physical Review A</i> , 2011 , 83,	2.6	25
85	Entanglement spectrum and boundary theories with projected entangled-pair states. <i>Physical Review B</i> , 2011 , 83,	3.3	178
84	Time-dependent variational principle for quantum lattices. <i>Physical Review Letters</i> , 2011 , 107, 070601	7.4	294
83	Quantum simulation of time-dependent Hamiltonians and the convenient illusion of Hilbert space. <i>Physical Review Letters</i> , 2011 , 106, 170501	7.4	107
82	Exploiting translational invariance in matrix product state simulations of spin chains with periodic boundary conditions. <i>Physical Review B</i> , 2011 , 83,	3.3	38
81	Mutual information in classical spin models. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2011 , 2011, P10011	1.9	35
80	The 🏿-divergence and mixing times of quantum Markov processes. <i>Journal of Mathematical Physics</i> , 2010 , 51, 122201	1.2	54
79	Fermionic implementation of projected entangled pair states algorithm. <i>Physical Review B</i> , 2010 , 81,	3.3	33
78	Simulation of interacting fermions with entanglement renormalization. <i>Physical Review A</i> , 2010 , 81,	2.6	93
77	Continuous matrix product states for quantum fields. <i>Physical Review Letters</i> , 2010 , 104, 190405	7.4	147

76	Stochastic matrix product states. <i>Physical Review Letters</i> , 2010 , 104, 210502	7.4	10
75	Matrix product operator representations. <i>New Journal of Physics</i> , 2010 , 12, 025012	2.9	170
74	Fermionic projected entangled pair states. <i>Physical Review A</i> , 2010 , 81,	2.6	134
73	Holographic quantum states. <i>Physical Review Letters</i> , 2010 , 105, 260401	7.4	45
72	Applying the variational principle to (1+1)-dimensional quantum field theories. <i>Physical Review Letters</i> , 2010 , 105, 251601	7.4	39
71	Simulating strongly correlated quantum systems with tree tensor networks. <i>Physical Review B</i> , 2010 , 82,	3.3	125
70	Complete-graph tensor network states: a new fermionic wave function ansatz for molecules. <i>New Journal of Physics</i> , 2010 , 12, 103008	2.9	70
69	Variational matrix-product-state approach to quantum impurity models. <i>Physical Review B</i> , 2009 , 80,	3.3	88
68	Exploring frustrated spin systems using projected entangled pair states. <i>Physical Review B</i> , 2009 , 79,	3.3	91
67	Renormalization algorithm with graph enhancement. <i>Physical Review A</i> , 2009 , 79,	2.6	13
67 66	Renormalization algorithm with graph enhancement. <i>Physical Review A</i> , 2009 , 79, Matrix product states for dynamical simulation of infinite chains. <i>Physical Review Letters</i> , 2009 , 102, 24		13 78
66	Matrix product states for dynamical simulation of infinite chains. <i>Physical Review Letters</i> , 2009 , 102, 24 Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A</i> :	0 6 03	78
66	Matrix product states for dynamical simulation of infinite chains. <i>Physical Review Letters</i> , 2009 , 102, 24 Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009 , 42, 504004 Quantum computation and quantum-state engineering driven by dissipation. <i>Nature Physics</i> , 2009 ,	0 6 0β 2 16.2	78 275
666564	Matrix product states for dynamical simulation of infinite chains. <i>Physical Review Letters</i> , 2009 , 102, 24 Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009 , 42, 504004 Quantum computation and quantum-state engineering driven by dissipation. <i>Nature Physics</i> , 2009 , 5, 633-636 Computational complexity of interacting electrons and fundamental limitations of density	0 6 0β 2 16.2	78 275 816
66656463	Matrix product states for dynamical simulation of infinite chains. <i>Physical Review Letters</i> , 2009 , 102, 24. Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009 , 42, 504004 Quantum computation and quantum-state engineering driven by dissipation. <i>Nature Physics</i> , 2009 , 5, 633-636 Computational complexity of interacting electrons and fundamental limitations of density functional theory. <i>Nature Physics</i> , 2009 , 5, 732-735	0603 2 16.2	78 275 816
6665646362	Matrix product states for dynamical simulation of infinite chains. <i>Physical Review Letters</i> , 2009 , 102, 24 Renormalization and tensor product states in spin chains and lattices. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2009 , 42, 504004 Quantum computation and quantum-state engineering driven by dissipation. <i>Nature Physics</i> , 2009 , 5, 633-636 Computational complexity of interacting electrons and fundamental limitations of density functional theory. <i>Nature Physics</i> , 2009 , 5, 732-735 Quantum circuits for strongly correlated quantum systems. <i>Physical Review A</i> , 2009 , 79, Classical simulation of infinite-size quantum lattice systems in two spatial dimensions. <i>Physical</i>	060B 2 16.2 16.2	78 275 816 121 65

(2006-2008)

58	Entropy scaling and simulability by matrix product states. <i>Physical Review Letters</i> , 2008 , 100, 030504	7.4	186
57	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
56	Creation, manipulation, and detection of Abelian and non-Abelian anyons in optical lattices. <i>Physical Review Letters</i> , 2008 , 101, 260501	7.4	75
55	Sequentially generated states for the study of two-dimensional systems. <i>Physical Review A</i> , 2008 , 77,	2.6	20
54	One-shot entanglement generation over long distances in noisy quantum networks. <i>Physical Review A</i> , 2008 , 78,	2.6	23
53	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
52	Computational difficulty of finding matrix product ground states. <i>Physical Review Letters</i> , 2008 , 100, 250501	7.4	35
51	Asymptotic Error Rates in Quantum Hypothesis Testing. <i>Communications in Mathematical Physics</i> , 2008 , 279, 251-283	2	120
50	Quantum computational complexity of the N-representability problem: QMA complete. <i>Physical Review Letters</i> , 2007 , 98, 110503	7.4	105
49	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
48	Computational complexity of projected entangled pair states. <i>Physical Review Letters</i> , 2007 , 98, 14050	6 7.4	127
47	Discriminating States: the quantum Chernoff bound. <i>Physical Review Letters</i> , 2007 , 98, 160501	7.4	260
46	Criticality, the area law, and the computational power of projected entangled pair states. <i>Physical Review Letters</i> , 2006 , 96, 220601	7.4	340
45	Renormalization algorithm for the calculation of spectra of interacting quantum systems. <i>Physical Review B</i> , 2006 , 73,	3.3	43
44	Ground-state approximation for strongly interacting spin systems in arbitrary spatial dimension. <i>Physical Review Letters</i> , 2006 , 97, 107206	7.4	46
43	Quantum phase transitions in matrix product systems. <i>Physical Review Letters</i> , 2006 , 97, 110403	7.4	94
42	PROJECTED ENTANGLED STATES: PROPERTIES AND APPLICATIONS. <i>International Journal of Modern Physics B</i> , 2006 , 20, 5142-5153	1.1	13
41	Matrix product states represent ground states faithfully. <i>Physical Review B</i> , 2006 , 73,	3.3	403

40	General monogamy inequality for bipartite qubit entanglement. <i>Physical Review Letters</i> , 2006 , 96, 2209	50 3 34	461
39	Lieb-Robinson bounds and the generation of correlations and topological quantum order. <i>Physical Review Letters</i> , 2006 , 97, 050401	7.4	338
38	Numerical Computation of Localizable Entanglement in Spin Chains. <i>Applied Physics B: Lasers and Optics</i> , 2006 , 82, 225-235	1.9	5
37	Efficient evaluation of partition functions of inhomogeneous many-body spin systems. <i>Physical Review Letters</i> , 2005 , 95, 057206	7.4	24
36	Entanglement of assistance and multipartite state distillation. <i>Physical Review A</i> , 2005 , 72,	2.6	90
35	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
34	Entanglement flow in multipartite systems. <i>Physical Review A</i> , 2005 , 71,	2.6	36
33	Renormalization-group transformations on quantum states. <i>Physical Review Letters</i> , 2005 , 94, 140601	7.4	135
32	Localizable entanglement. <i>Physical Review A</i> , 2005 , 71,	2.6	158
31	Interpolation of recurrence and hashing entanglement distillation protocols. <i>Physical Review A</i> , 2005 , 71,	2.6	23
30	Exploiting quantum parallelism to simulate quantum random many-body systems. <i>Physical Review Letters</i> , 2005 , 95, 140501	7.4	56
29	Sequential generation of entangled multiqubit states. <i>Physical Review Letters</i> , 2005 , 95, 110503	7.4	137
28	Nonlocal resources in the presence of superselection rules. <i>Physical Review Letters</i> , 2004 , 92, 087904	7.4	65
27	Entanglement frustration for Gaussian states on symmetric graphs. <i>Physical Review Letters</i> , 2004 , 92, 087903	7.4	32
26	Quantum entanglement theory in the presence of superselection rules. <i>Physical Review A</i> , 2004 , 70,	2.6	70
25	Valence-bond states for quantum computation. <i>Physical Review A</i> , 2004 , 70,	2.6	210
24	The moduli space of three-qutrit states. <i>Journal of Mathematical Physics</i> , 2004 , 45, 4855-4867	1.2	34
23	Multipartite entanglement in 200 quantum systems. <i>Physical Review A</i> , 2004 , 69,	2.6	54

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22	Density matrix renormalization group and periodic boundary conditions: a quantum information perspective. <i>Physical Review Letters</i> , 2004 , 93, 227205	7.4	398
21	Matrix product density operators: simulation of finite-temperature and dissipative systems. <i>Physical Review Letters</i> , 2004 , 93, 207204	7.4	564
20	Diverging entanglement length in gapped quantum spin systems. <i>Physical Review Letters</i> , 2004 , 92, 08	72,04	296
19	Entanglement versus correlations in spin systems. <i>Physical Review Letters</i> , 2004 , 92, 027901	7.4	345
18	ENTANGLEMENT AND FRUSTRATION IN ORDERED SYSTEMS. <i>International Journal of Quantum Information</i> , 2003 , 01, 465-477	0.8	23
17	Separable States can be used to distribute entanglement. <i>Physical Review Letters</i> , 2003 , 91, 037902	7.4	100
16	Optimal teleportation with a mixed state of two qubits. <i>Physical Review Letters</i> , 2003 , 90, 097901	7.4	106
15	Maximal entanglement versus entropy for mixed quantum states. <i>Physical Review A</i> , 2003 , 67,	2.6	229
14	Normal forms and entanglement measures for multipartite quantum states. <i>Physical Review A</i> , 2003 , 68,	2.6	175
13	Quantum nonlocality in the presence of superselection rules and data hiding protocols. <i>Physical Review Letters</i> , 2003 , 91, 010404	7.4	74
12	Local permutations of products of Bell states and entanglement distillation. <i>Physical Review A</i> , 2003 , 67,	2.6	46
11	Lorentz singular-value decomposition and its applications to pure states of three qubits. <i>Physical Review A</i> , 2002 , 65,	2.6	44
10	On the geometry of entangled states. Journal of Modern Optics, 2002, 49, 1277-1287	1.1	36
9	Entanglement versus bell violations and their behavior under local filtering operations. <i>Physical Review Letters</i> , 2002 , 89, 170401	7.4	123
8	Four qubits can be entangled in nine different ways. <i>Physical Review A</i> , 2002 , 65,	2.6	434
7	Fidelity of mixed states of two qubits. <i>Physical Review A</i> , 2002 , 66,	2.6	41
6	Variational characterizations of separability and entanglement of formation. <i>Physical Review A</i> , 2001 , 64,	2.6	99
5	Sensitivity optimization in quantum parameter estimation. <i>Physical Review A</i> , 2001 , 64,	2.6	27

4	Local filtering operations on two qubits. <i>Physical Review A</i> , 2001 , 64,	2.6	126
3	Maximally entangled mixed states of two qubits. <i>Physical Review A</i> , 2001 , 64,	2.6	134
2	A comparison of the entanglement measures negativity and concurrence. <i>Journal of Physics A</i> , 2001 , 34, 10327-10332		109
1	Tangent-space methods for uniform matrix product states. SciPost Physics Lecture Notes,		46