

Daniel A Lidar

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3195423/publications.pdf>

Version: 2024-02-01

230
papers

16,987
citations

12330

69
h-index

16650

123
g-index

239
all docs

239
docs citations

239
times ranked

6843
citing authors

#	ARTICLE	IF	CITATIONS
1	Decoherence-Free Subspaces for Quantum Computation. <i>Physical Review Letters</i> , 1998, 81, 2594-2597.	7.8	1,465
2	Adiabatic quantum computation. <i>Reviews of Modern Physics</i> , 2018, 90, .	45.6	743
3	Evidence for quantum annealing with more than one hundred qubits. <i>Nature Physics</i> , 2014, 10, 218-224.	16.7	539
4	Quantum Phase Transitions and Bipartite Entanglement. <i>Physical Review Letters</i> , 2004, 93, 250404.	7.8	423
5	Theory of decoherence-free fault-tolerant universal quantum computation. <i>Physical Review A</i> , 2001, 63, .	2.5	420
6	Fault-Tolerant Quantum Dynamical Decoupling. <i>Physical Review Letters</i> , 2005, 95, 180501.	7.8	420
7	Defining and detecting quantum speedup. <i>Science</i> , 2014, 345, 420-424.	12.6	405
8	Is the Geometry of Nature Fractal?. <i>Science</i> , 1998, 279, 39-40.	12.6	384
9	Decoherence-protected quantum gates for a hybrid solid-state spin register. <i>Nature</i> , 2012, 484, 82-86.	27.8	320
10	Vanishing Quantum Discord is Necessary and Sufficient for Completely Positive Maps. <i>Physical Review Letters</i> , 2009, 102, 100402.	7.8	283
11	Universal Fault-Tolerant Quantum Computation on Decoherence-Free Subspaces. <i>Physical Review Letters</i> , 2000, 85, 1758-1761.	7.8	278
12	Unification of dynamical decoupling and the quantum Zeno effect. <i>Physical Review A</i> , 2004, 69, .	2.5	274
13	Quantum-process tomography: Resource analysis of different strategies. <i>Physical Review A</i> , 2008, 77, .	2.5	274
14	Concatenating Decoherence-Free Subspaces with Quantum Error Correcting Codes. <i>Physical Review Letters</i> , 1999, 82, 4556-4559.	7.8	248
15	Experimental signature of programmable quantum annealing. <i>Nature Communications</i> , 2013, 4, 2067.	12.8	223
16	Quantum adiabatic Markovian master equations. <i>New Journal of Physics</i> , 2012, 14, 123016.	2.9	202
17	Quantum Tensor Product Structures are Observable Induced. <i>Physical Review Letters</i> , 2004, 92, 060402.	7.8	196
18	Control of decoherence: Analysis and comparison of three different strategies. <i>Physical Review A</i> , 2005, 71, .	2.5	181

#	ARTICLE	IF	CITATIONS
19	Adiabatic Quantum Computation in Open Systems. <i>Physical Review Letters</i> , 2005, 95, 250503.	7.8	175
20	Performance of deterministic dynamical decoupling schemes: Concatenated and periodic pulse sequences. <i>Physical Review A</i> , 2007, 75, .	2.5	164
21	Decoherence-Free Subspaces and Subsystems. <i>Lecture Notes in Physics</i> , 2003, , 83-120.	0.7	162
22	Simple Proof of Equivalence between Adiabatic Quantum Computation and the Circuit Model. <i>Physical Review Letters</i> , 2007, 99, 070502.	7.8	161
23	Adiabatic approximation in open quantum systems. <i>Physical Review A</i> , 2005, 71, .	2.5	157
24	Optimal Dynamical Decoherence Control of a Qubit. <i>Physical Review Letters</i> , 2008, 101, 010403.	7.8	155
25	Completely positive post-Markovian master equation via a measurement approach. <i>Physical Review A</i> , 2005, 71, .	2.5	145
26	Arbitrarily Accurate Dynamical Control in Open Quantum Systems. <i>Physical Review Letters</i> , 2010, 104, 090501.	7.8	144
27	Solving a Higgs optimization problem with quantum annealing for machine learning. <i>Nature</i> , 2017, 550, 375-379.	27.8	143
28	Scaling range and cutoffs in empirical fractals. <i>Physical Review E</i> , 1997, 56, 2817-2828.	2.1	142
29	Error-corrected quantum annealing with hundreds of qubits. <i>Nature Communications</i> , 2014, 5, 3243.	12.8	139
30	Adiabatic approximation with exponential accuracy for many-body systems and quantum computation. <i>Journal of Mathematical Physics</i> , 2009, 50, .	1.1	135
31	Creating Decoherence-Free Subspaces Using Strong and Fast Pulses. <i>Physical Review Letters</i> , 2002, 88, 207902.	7.8	134
32	Quantum Adiabatic Brachistochrone. <i>Physical Review Letters</i> , 2009, 103, 080502.	7.8	126
33	Quantum annealing versus classical machine learning applied to a simplified computational biology problem. <i>Npj Quantum Information</i> , 2018, 4, .	6.7	126
34	Holonomic Quantum Computation in Decoherence-Free Subspaces. <i>Physical Review Letters</i> , 2005, 95, 130501.	7.8	119
35	High Fidelity Quantum Gates via Dynamical Decoupling. <i>Physical Review Letters</i> , 2010, 105, 230503.	7.8	118
36	Robustness of decoherence-free subspaces for quantum computation. <i>Physical Review A</i> , 1999, 60, 1944-1955.	2.5	117

#	ARTICLE	IF	CITATIONS
37	Probing for quantum speedup in spin-glass problems with planted solutions. <i>Physical Review A</i> , 2015, 92, .	2.5	117
38	Direct Characterization of Quantum Dynamics. <i>Physical Review Letters</i> , 2006, 97, 170501.	7.8	115
39	Internal consistency of fault-tolerant quantum error correction in light of rigorous derivations of the quantum Markovian limit. <i>Physical Review A</i> , 2006, 73, .	2.5	113
40	Demonstration of Fidelity Improvement Using Dynamical Decoupling with Superconducting Qubits. <i>Physical Review Letters</i> , 2018, 121, 220502.	7.8	110
41	Demonstration of a Scaling Advantage for a Quantum Annealer over Simulated Annealing. <i>Physical Review X</i> , 2018, 8, .	8.9	108
42	From completely positive maps to the quantum Markovian semigroup master equation. <i>Chemical Physics</i> , 2001, 268, 35-53.	1.9	104
43	Decoherence in adiabatic quantum computation. <i>Physical Review A</i> , 2015, 91, .	2.5	104
44	Towards Fault Tolerant Adiabatic Quantum Computation. <i>Physical Review Letters</i> , 2008, 100, 160506.	7.8	102
45	Linking entanglement and quantum phase transitions via density-functional theory. <i>Physical Review A</i> , 2006, 74, .	2.5	97
46	Consistency tests of classical and quantum models for a quantum annealer. <i>Physical Review A</i> , 2015, 91, .	2.5	97
47	Simulating Ising spin glasses on a quantum computer. <i>Physical Review E</i> , 1997, 56, 3661-3681.	2.1	96
48	Reducing Constraints on Quantum Computer Design by Encoded Selective Recoupling. <i>Physical Review Letters</i> , 2001, 88, 017905.	7.8	96
49	Entanglement, fidelity, and topological entropy in a quantum phase transition to topological order. <i>Physical Review B</i> , 2008, 77, .	3.2	95
50	Zeno Effect for Quantum Computation and Control. <i>Physical Review Letters</i> , 2012, 108, 080501.	7.8	95
51	Quantum adiabatic machine learning. <i>Quantum Information Processing</i> , 2013, 12, 2027-2070.	2.2	95
52	Fluctuation theorems for quantum processes. <i>Physical Review E</i> , 2013, 88, 032146.	2.1	95
53	Grover's quantum search algorithm for an arbitrary initial amplitude distribution. <i>Physical Review A</i> , 1999, 60, 2742-2745.	2.5	93
54	Magnetic Resonance Realization of Decoherence-Free Quantum Computation. <i>Physical Review Letters</i> , 2003, 91, 217904.	7.8	92

#	ARTICLE	IF	CITATIONS
55	Consistency of the Adiabatic Theorem. <i>Quantum Information Processing</i> , 2004, 3, 331-349.	2.2	92
56	Optimal control of quantum gates and suppression of decoherence in a system of interacting two-level particles. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2007, 40, S103-S125.	1.5	92
57	Adiabatic Preparation of Topological Order. <i>Physical Review Letters</i> , 2008, 100, 030502.	7.8	88
58	Near-Optimal Dynamical Decoupling of a Qubit. <i>Physical Review Letters</i> , 2010, 104, 130501.	7.8	87
59	Efficient Universal Leakage Elimination for Physical and Encoded Qubits. <i>Physical Review Letters</i> , 2002, 89, 127901.	7.8	83
60	Calculating the thermal rate constant with exponential speedup on a quantum computer. <i>Physical Review E</i> , 1999, 59, 2429-2438.	2.1	80
61	Theory of initialization-free decoherence-free subspaces and subsystems. <i>Physical Review A</i> , 2005, 72, .	2.5	80
62	Comprehensive Encoding and Decoupling Solution to Problems of Decoherence and Design in Solid-State Quantum Computing. <i>Physical Review Letters</i> , 2002, 89, 047901.	7.8	79
63	Polynomial-Time Simulation of Pairing Models on a Quantum Computer. <i>Physical Review Letters</i> , 2002, 89, 057904.	7.8	78
64	Reexamining classical and quantum models for the D-Wave One processor. <i>European Physical Journal: Special Topics</i> , 2015, 224, 111-129.	2.6	77
65	Decoherence-free subspaces for multiple-qubit errors. I. Characterization. <i>Physical Review A</i> , 2001, 63, .	2.5	74
66	Combining dynamical decoupling with fault-tolerant quantum computation. <i>Physical Review A</i> , 2011, 84, .	2.5	74
67	Quantum annealing correction for random Ising problems. <i>Physical Review A</i> , 2015, 91, .	2.5	74
68	Dynamical decoupling using slow pulses: Efficient suppression of $1/f$ noise. <i>Physical Review A</i> , 2004, 69, .	2.5	72
69	Efficient Multiqubit Entanglement via a Spin Bus. <i>Physical Review Letters</i> , 2007, 98, 230503.	7.8	72
70	Abelian and non-Abelian geometric phases in adiabatic open quantum systems. <i>Physical Review A</i> , 2006, 73, .	2.5	71
71	Identification of driver genes for critical forms of COVID-19 in a deeply phenotyped young patient cohort. <i>Science Translational Medicine</i> , 2022, 14, eabj7521.	12.4	71
72	Probing the universality of topological defect formation in a quantum annealer: Kibble-Zurek mechanism and beyond. <i>Physical Review Research</i> , 2020, 2, .	3.6	70

#	ARTICLE	IF	CITATIONS
73	Adiabaticity in open quantum systems. <i>Physical Review A</i> , 2016, 93, .	2.5	68
74	Intrinsic geometry of quantum adiabatic evolution and quantum phase transitions. <i>Physical Review A</i> , 2010, 82, .	2.5	67
75	Quantum annealing correction with minor embedding. <i>Physical Review A</i> , 2015, 92, .	2.5	67
76	Entanglement observables and witnesses for interacting quantum spin systems. <i>Physical Review A</i> , 2005, 72, .	2.5	66
77	Reverse annealing for the fully connected $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -spin model. <i>Physical Review A</i> , 2018, 98, .	2.5	65
78	Fault-Tolerant Holonomic Quantum Computation. <i>Physical Review Letters</i> , 2009, 102, 070502.	7.8	61
79	Adiabatic Quantum Algorithm for Search Engine Ranking. <i>Physical Review Letters</i> , 2012, 108, 230506.	7.8	60
80	Prospects for quantum enhancement with diabatic quantum annealing. <i>Nature Reviews Physics</i> , 2021, 3, 466-489.	26.6	59
81	Accuracy versus run time in an adiabatic quantum search. <i>Physical Review A</i> , 2010, 82, .	2.5	57
82	Quantum Speed Limits for Leakage and Decoherence. <i>Physical Review Letters</i> , 2015, 115, 210402.	7.8	57
83	Analysis of generalized Grover quantum search algorithms using recursion equations. <i>Physical Review A</i> , 2000, 63, .	2.5	54
84	Tunneling and Speedup in Quantum Optimization for Permutation-Symmetric Problems. <i>Physical Review X</i> , 2016, 6, .	8.9	53
85	Purity and state fidelity of quantum channels. <i>Physical Review A</i> , 2004, 70, .	2.5	52
86	Decoherence-free subspaces for multiple-qubit errors. II. Universal, fault-tolerant quantum computation. <i>Physical Review A</i> , 2001, 63, .	2.5	51
87	Universal leakage elimination. <i>Physical Review A</i> , 2005, 71, .	2.5	51
88	Non-Markovian dynamics of a qubit coupled to an Ising spin bath. <i>Physical Review A</i> , 2007, 76, .	2.5	51
89	Protecting quantum information encoded in decoherence-free states against exchange errors. <i>Physical Review A</i> , 2000, 61, .	2.5	50
90	Empirical determination of dynamical decoupling operations. <i>Physical Review A</i> , 2003, 67, .	2.5	48

#	ARTICLE	IF	CITATIONS
91	Robust Quantum Error Correction via Convex Optimization. Physical Review Letters, 2008, 100, 020502.	7.8	48
92	Coarse graining can beat the rotating-wave approximation in quantum Markovian master equations. Physical Review A, 2013, 88, .	2.5	48
93	Qubits as parafermions. Journal of Mathematical Physics, 2002, 43, 4506-4525.	1.1	47
94	Distance bounds on quantum dynamics. Physical Review A, 2008, 78, .	2.5	47
95	Analog errors in quantum annealing: doom and hope. Npj Quantum Information, 2019, 5, .	6.7	47
96	Bang-Bang Operations from a Geometric Perspective. Quantum Information Processing, 2002, 1, 19-34.	2.2	46
97	Direct characterization of quantum dynamics: General theory. Physical Review A, 2007, 75, .	2.5	46
98	Max 2-SAT with up to 108 qubits. New Journal of Physics, 2014, 16, 045006.	2.9	46
99	Dressed Qubits. Physical Review Letters, 2003, 91, 097904.	7.8	45
100	Quantum annealing of the p -spin model under inhomogeneous transverse field driving. Physical Review A, 2018, 98, .	2.5	42
101	Completely positive master equation for arbitrary driving and small level spacing. Quantum - the Open Journal for Quantum Science, 0, 4, 227.	0.0	42
102	Adiabatic quantum optimization with the wrong Hamiltonian. Physical Review A, 2013, 88, .	2.5	41
103	A general framework for complete positivity. Quantum Information Processing, 2016, 15, 465-494.	2.2	41
104	Dynamics of reverse annealing for the fully connected p -spin model. Physical Review A, 2019, 100, .	2.5	41
105	Universal quantum logic from Zeeman and anisotropic exchange interactions. Physical Review A, 2002, 66, .	2.5	40
106	Overview of quantum error prevention and leakage elimination. Journal of Modern Optics, 2004, 51, 2449-2460.	1.3	40
107	Bang-bang control of a qubit coupled to a quantum critical spin bath. Physical Review A, 2008, 77, .	2.5	39
108	Maps for general open quantum systems and a theory of linear quantum error correction. Physical Review A, 2009, 80, .	2.5	39

#	ARTICLE	IF	CITATIONS
109	Nested quantum annealing correction. Npj Quantum Information, 2016, 2, .	6.7	39
110	Reverse quantum annealing of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -spin model with relaxation. Physical Review A, 2020, 101, .	2.5	39
111	On the computational complexity of curing non-stoquastic Hamiltonians. Nature Communications, 2019, 10, 1571.	12.8	38
112	Rigorous bounds on the performance of a hybrid dynamical-decoupling quantum-computing scheme. Physical Review A, 2008, 78, .	2.5	36
113	Entangling capacities of noisy two-qubit Hamiltonians. Physical Review A, 2004, 70, .	2.5	35
114	Robustness of multiqubit entanglement in the independent decoherence model. Physical Review A, 2005, 72, .	2.5	35
115	Finite temperature quantum annealing solving exponentially small gap problem with non-monotonic success probability. Nature Communications, 2018, 9, 2917.	12.8	35
116	Quantum error correction via convex optimization. Quantum Information Processing, 2009, 8, 443-459.	2.2	34
117	Quantum computing with quantum dots on quantum linear supports. Physical Review A, 2001, 65, .	2.5	33
118	Encoded recoupling and decoupling: An alternative to quantum error-correcting codes applied to trapped-ion quantum computation. Physical Review A, 2003, 67, .	2.5	33
119	Long-range entanglement generation via frequent measurements. Physical Review A, 2004, 70, .	2.5	33
120	Quadratic dynamical decoupling: Universality proof and error analysis. Physical Review A, 2011, 84, .	2.5	33
121	Beyond complete positivity. Quantum Information Processing, 2016, 15, 1349-1360.	2.2	32
122	Quantum-annealing correction at finite temperature: Ferromagnetic $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"> \langle \text{mml:mi} \rangle \text{p} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -spin models. Physical Review A, 2017, 95, .	2.5	32
123	Power of anisotropic exchange interactions: Universality and efficient codes for quantum computing. Physical Review A, 2002, 65, .	2.5	31
124	One-Spin Quantum Logic Gates from Exchange Interactions and a Global Magnetic Field. Physical Review Letters, 2004, 93, 030501.	7.8	31
125	Three- and Four-Body Interactions in Spin-Based Quantum Computers. Physical Review Letters, 2004, 92, 077903.	7.8	31
126	Non-stoquastic Hamiltonians in quantum annealing via geometric phases. Npj Quantum Information, 2017, 3, .	6.7	31

#	ARTICLE	IF	CITATIONS
127	Exchange interaction between three and four coupled quantum dots: Theory and applications to quantum computing. <i>Physical Review B</i> , 2004, 70, .	3.2	30
128	Encoding a qubit into multilevel subspaces. <i>New Journal of Physics</i> , 2006, 8, 35-35.	2.9	30
129	Performance of two different quantum annealing correction codes. <i>Quantum Information Processing</i> , 2016, 15, 609-636.	2.2	30
130	An implementation of the Deutsch-Jozsa algorithm on molecular vibronic coherences through four-wave mixing: a theoretical study. <i>Chemical Physics Letters</i> , 2002, 360, 459-465.	2.6	29
131	Fault-Tolerant Quantum Computation via Exchange Interactions. <i>Physical Review Letters</i> , 2005, 94, 040507.	7.8	29
132	Rigorous bounds for optimal dynamical decoupling. <i>Physical Review A</i> , 2010, 82, .	2.5	29
133	Test-driving 1000 qubits. <i>Quantum Science and Technology</i> , 2018, 3, 030501.	5.8	29
134	High-fidelity adiabatic quantum computation via dynamical decoupling. <i>Physical Review A</i> , 2012, 86, .	2.5	28
135	Mean Field Analysis of Quantum Annealing Correction. <i>Physical Review Letters</i> , 2016, 116, 220501.	7.8	28
136	High fidelity quantum memory via dynamical decoupling: theory and experiment. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011, 44, 154003.	1.5	27
137	Reexamination of the evidence for entanglement in a quantum annealer. <i>Physical Review A</i> , 2015, 92, .	2.5	27
138	Why and When Pausing is Beneficial in Quantum Annealing. <i>Physical Review Applied</i> , 2020, 14, .	3.8	27
139	On the Exact Evaluation of Certain Instances of the Potts Partition Function by Quantum Computers. <i>Communications in Mathematical Physics</i> , 2008, 279, 735-768.	2.2	26
140	Optimally combining dynamical decoupling and quantum error correction. <i>Scientific Reports</i> , 2013, 3, 1530.	3.3	26
141	Error Suppression for Hamiltonian-Based Quantum Computation Using Subsystem Codes. <i>Physical Review Letters</i> , 2017, 118, 030504.	7.8	26
142	Fractal analysis of protein potential energy landscapes. <i>Physical Review E</i> , 1999, 59, 2231-2243.	2.1	25
143	Quantum computing in the presence of spontaneous emission by a combined dynamical decoupling and quantum-error-correction strategy. <i>Physical Review A</i> , 2003, 68, .	2.5	25
144	On the quantum computational complexity of the Ising spin glass partition function and of knot invariants. <i>New Journal of Physics</i> , 2004, 6, 167-167.	2.9	25

#	ARTICLE	IF	CITATIONS
145	Encoding one logical qubit into six physical qubits. <i>Physical Review A</i> , 2008, 78, .	2.5	25
146	Channel capacities of an exactly solvable spin-star system. <i>Physical Review A</i> , 2010, 81, .	2.5	25
147	Exponentially localized magnetic fields for single-spin quantum logic gates. <i>Journal of Applied Physics</i> , 2004, 96, 754-758.	2.5	24
148	Fidelity of optimally controlled quantum gates with randomly coupled multiparticle environments. <i>Journal of Modern Optics</i> , 2007, 54, 2339-2349.	1.3	24
149	Universal Fault-Tolerant Quantum Computation in the Presence of Spontaneous Emission and Collective Dephasing. <i>Physical Review Letters</i> , 2002, 89, 197904.	7.8	23
150	Simulated-quantum-annealing comparison between all-to-all connectivity schemes. <i>Physical Review A</i> , 2016, 94, .	2.5	22
151	Eigenstate tracking in open quantum systems. <i>Physical Review A</i> , 2016, 94, .	2.5	22
152	Channel-Optimized Quantum Error Correction. <i>IEEE Transactions on Information Theory</i> , 2010, 56, 1461-1473.	2.4	21
153	Analysis of the quantum Zeno effect for quantum control and computation. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 075306.	2.1	21
154	Relaxation versus adiabatic quantum steady-state preparation. <i>Physical Review A</i> , 2017, 95, .	2.5	21
155	Optimized dynamical decoupling via genetic algorithms. <i>Physical Review A</i> , 2013, 88, .	2.5	20
156	How to Teleport Superpositions of Chiral Amplitudes. <i>Physical Review Letters</i> , 1998, 81, 5928-5931.	7.8	19
157	Overcoming quantum noise in optical fibers. <i>Physical Review A</i> , 2004, 70, .	2.5	19
158	Optimally Stopped Optimization. <i>Physical Review Applied</i> , 2016, 6, .	3.8	19
159	Limitations of error corrected quantum annealing in improving the performance of Boltzmann machines. <i>Quantum Science and Technology</i> , 2020, 5, 045010.	5.8	19
160	Scalable effective-temperature reduction for quantum annealers via nested quantum annealing correction. <i>Physical Review A</i> , 2018, 97, .	2.5	18
161	3-regular three-XORSAT planted solutions benchmark of classical and quantum heuristic optimizers. <i>Quantum Science and Technology</i> , 2022, 7, 025008.	5.8	18
162	Robust transmission of non-Gaussian entanglement over optical fibers. <i>Physical Review A</i> , 2006, 74, .	2.5	16

#	ARTICLE	IF	CITATIONS
163	Scheme for fault-tolerant holonomic computation on stabilizer codes. <i>Physical Review A</i> , 2009, 80, .	2.5	16
164	Quantum Error Suppression with Commuting Hamiltonians: Two Local is Too Local. <i>Physical Review Letters</i> , 2014, 113, 260504.	7.8	16
165	Quantum processor-inspired machine learning in the biomedical sciences. <i>Patterns</i> , 2021, 2, 100246.	5.9	16
166	Combined error correction techniques for quantum computing architectures. <i>Journal of Modern Optics</i> , 2003, 50, 1285-1297.	1.3	15
167	Quantum trajectories for time-dependent adiabatic master equations. <i>Physical Review A</i> , 2018, 97, .	2.5	15
168	Quantum adiabatic machine learning by zooming into a region of the energy surface. <i>Physical Review A</i> , 2020, 102, .	2.5	15
169	Optimal control landscape for the generation of unitary transformations with constrained dynamics. <i>Physical Review A</i> , 2010, 81, .	2.5	14
170	Quadratic dynamical decoupling with nonuniform error suppression. <i>Physical Review A</i> , 2011, 84, .	2.5	14
171	Nested quantum annealing correction at finite temperature: p -spin models. <i>Physical Review A</i> , 2019, 99, .	2.5	14
172	Universal quantum computation using exchange interactions and measurements of single- and two-spin observables. <i>Physical Review A</i> , 2003, 67, .	2.5	13
173	Decoherence-induced geometric phase in a multilevel atomic system. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2007, 40, S127-S142.	1.5	13
174	Classical Ising model test for quantum circuits. <i>New Journal of Physics</i> , 2010, 12, 075026.	2.9	13
175	Error suppression for Hamiltonian quantum computing in Markovian environments. <i>Physical Review A</i> , 2017, 95, .	2.5	13
176	A double-slit proposal for quantum annealing. <i>Npj Quantum Information</i> , 2019, 5, .	6.7	13
177	Fractality in Nature. <i>Science</i> , 1998, 279, 1611h-1611.	12.6	13
178	Quantum Codes for Simplifying Design and Suppressing Decoherence in Superconducting Phase-Qubits. <i>Quantum Information Processing</i> , 2002, 1, 155-182.	2.2	12
179	Quantum logic gates in iodine vapor using time-â€‘frequency resolved coherent anti-Stokes Raman scattering: a theoretical study. <i>Molecular Physics</i> , 2006, 104, 1249-1266.	1.7	12
180	Error reduction in quantum annealing using boundary cancellation: Only the end matters. <i>Physical Review A</i> , 2018, 98, .	2.5	12

#	ARTICLE	IF	CITATIONS
181	Optimal Control for Quantum Optimization of Closed and Open Systems. <i>Physical Review Applied</i> , 2021, 16, .	3.8	12
182	Operator quantum error correction for continuous dynamics. <i>Physical Review A</i> , 2008, 78, .	2.5	11
183	No-go theorem for passive single-rail linear optical quantum computing. <i>Scientific Reports</i> , 2013, 3, 1394.	3.3	11
184	Exploring More-Coherent Quantum Annealing. , 2018, , .		11
185	Few-body spin couplings and their implications for universal quantum computation. <i>Journal of Physics Condensed Matter</i> , 2006, 18, S721-S744.	1.8	10
186	Charged particle tracking with quantum annealing optimization. <i>Quantum Machine Intelligence</i> , 2021, 3, 1.	4.8	10
187	Hamiltonian open quantum system toolkit. <i>Communications Physics</i> , 2022, 5, .	5.3	10
188	Comment on "Conservative Quantum Computing". <i>Physical Review Letters</i> , 2003, 91, 089801; discussion 089802.	7.8	9
189	Standard quantum annealing outperforms adiabatic reverse annealing with decoherence. <i>Physical Review A</i> , 2022, 105, .	2.5	9
190	He scattering from random adsorbates, disordered compact islands, and fractal submonolayers: Intensity manifestations of surface disorder. <i>Journal of Chemical Physics</i> , 1997, 106, 4228-4242.	3.0	8
191	Spin density matrix of a two-electron system. II. Application to a system of two quantum dots. <i>Physical Review B</i> , 2008, 77, .	3.2	8
192	Fast, Lifetime-Preserving Readout for High-Coherence Quantum Annealers. <i>PRX Quantum</i> , 2020, 1, .	9.2	8
193	Predicting Non-Markovian Superconducting-Qubit Dynamics from Tomographic Reconstruction. <i>Physical Review Applied</i> , 2022, 17, .	3.8	8
194	Limited range fractality of randomly adsorbed rods. <i>Journal of Chemical Physics</i> , 1997, 106, 10359-10367.	3.0	7
195	Pattern formation and a clustering transition in power-law sequential adsorption. <i>Physical Review E</i> , 1999, 59, R4713-R4716.	2.1	7
196	Optimized entanglement-assisted quantum error correction. <i>Physical Review A</i> , 2010, 82, .	2.5	7
197	Universality proof and analysis of generalized nested Uhrig dynamical decoupling. <i>Journal of Mathematical Physics</i> , 2012, 53, 122207.	1.1	7
198	Sensitivity of quantum speedup by quantum annealing to a noisy oracle. <i>Physical Review A</i> , 2019, 99, .	2.5	7

#	ARTICLE	IF	CITATIONS
199	Anneal-path correction in flux qubits. Npj Quantum Information, 2021, 7, .	6.7	7
200	Wuet al.Reply:. Physical Review Letters, 2003, 90, .	7.8	6
201	Non-Markovianity of the post-Markovian master equation. Physical Review A, 2018, 98, .	2.5	6
202	Fast, Lifetime-Preserving Readout for High-Coherence Quantum Annealers. PRX Quantum, 2020, 1, .	9.2	6
203	Rigorous performance bounds for quadratic and nested dynamical decoupling. Physical Review A, 2011, 84, .	2.5	5
204	Arbitrary-time error suppression for Markovian adiabatic quantum computing using stabilizer subspace codes. Physical Review A, 2019, 100, .	2.5	5
205	Customized Quantum Annealing Schedules. Physical Review Applied, 2022, 17, .	3.8	5
206	Quantum Malware. Quantum Information Processing, 2006, 5, 69-81.	2.2	4
207	Breakdown of the Weak-Coupling Limit in Quantum Annealing. Physical Review Applied, 2022, 17, .	3.8	4
208	Inversion of randomly corrugated surface structure from atom scattering data. Inverse Problems, 1998, 14, 1299-1310.	2.0	3
209	Comment on "Quantum waveguide array generator for performing Fourier transforms: Alternate route to quantum computing" [Appl. Phys. Lett. 79, 2823 (2001)]. Applied Physics Letters, 2002, 80, 2419-2419.	3.3	3
210	Entanglement and area law with a fractal boundary in a topologically ordered phase. Physical Review A, 2010, 81, .	2.5	3
211	Introduction to decoherence and noise in open quantum systems. , 0, , 3-45.		3
212	Phase transitions in the frustrated Ising ladder with stoquastic and nonstoquastic catalysts. Physical Review Research, 2021, 3, .	3.6	3
213	Publisher's Note: Polynomial-Time Simulation of Pairing Models on a Quantum Computer [Phys. Rev. Lett.89, 057904 (2002)]. Physical Review Letters, 2002, 89, .	7.8	1
214	Quantum computers and decoherence: exorcising the demon from the machine. , 2003, 5115, 256.		1
215	How to control decoherence and entanglement in quantum complex systems?. Journal of Physics B: Atomic, Molecular and Optical Physics, 2007, 40, .	1.5	1
216	Publisher's Note: Towards Fault Tolerant Adiabatic Quantum Computation [Phys. Rev. Lett.100, 160506 (2008)]. Physical Review Letters, 2008, 100, .	7.8	1

#	ARTICLE	IF	CITATIONS
217	Spin density matrix of a two-electron system. I. General theory and exact master equations. Physical Review B, 2008, 77, .	3.2	1
218	Introduction to decoherence-free subspaces and noiseless subsystems. , 2013, , 78-104.		1
219	Evolution prediction from tomography. Quantum Information Processing, 2017, 16, 1.	2.2	1
220	Quasiadiabatic Grover search via the Wentzel-Kramers-Brillouin approximation. Physical Review A, 2017, 96, .	2.5	1
221	Suppression of effective noise in Hamiltonian simulations. Physical Review A, 2017, 96, .	2.5	1
222	A general framework for complete positivity. , 2016, 15, 465.		1
223	Combined error correction techniques for quantum computing architectures. Journal of Modern Optics, 2003, 50, 1285-1297.	1.3	1
224	Atom scattering from disordered surfaces in the sudden approximation: double collisions effects and quantum liquids. Surface Science, 1998, 411, 231-248.	1.9	0
225	Robust dynamical decoupling: feedback-free error correction. , 2005, , .		0
226	Against the odds of imperfection. Nature Physics, 2005, 1, 145-146.	16.7	0
227	ROBUST DYNAMICAL DECOUPLING: FEEDBACK-FREE ERROR CORRECTION. International Journal of Quantum Information, 2005, 03, 41-52.	1.1	0
228	Fault tolerance for holonomic quantum computation. , 0, , 412-431.		0
229	Low overhead universality and quantum supremacy using only Z control. Physical Review Research, 2021, 3, .	3.6	0
230	ROBUST DYNAMICAL DECOUPLING: FEEDBACK-FREE ERROR CORRECTION. , 2005, , .		0