

Xinhua Peng

List of Publications by Citations

Source: <https://exaly.com/author-pdf/124622/xinhua-peng-publications-by-citations.pdf>

Version: 2024-04-29

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

110
papers

2,648
citations

26
h-index

47
g-index

116
ext. papers

3,248
ext. citations

4.9
avg, IF

5.05
L-index

#	Paper	IF	Citations
110	Experimental implementation of remote state preparation by nuclear magnetic resonance. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2003 , 306, 271-276	2.3	181
109	NMR implementation of a molecular hydrogen quantum simulation with adiabatic state preparation. <i>Physical Review Letters</i> , 2010 , 104, 030502	7.4	159
108	Measuring Out-of-Time-Order Correlators on a Nuclear Magnetic Resonance Quantum Simulator. <i>Physical Review X</i> , 2017 , 7,	9.1	158
107	Room-temperature implementation of the Deutsch-Jozsa algorithm with a single electronic spin in diamond. <i>Physical Review Letters</i> , 2010 , 105, 040504	7.4	111
106	Quantum factorization of 143 on a dipolar-coupling nuclear magnetic resonance system. <i>Physical Review Letters</i> , 2012 , 108, 130501	7.4	100
105	Quantum simulation of a system with competing two- and three-body interactions. <i>Physical Review Letters</i> , 2009 , 103, 140501	7.4	95
104	Hybrid Quantum-Classical Approach to Quantum Optimal Control. <i>Physical Review Letters</i> , 2017 , 118, 150503	7.4	93
103	Quantum adiabatic algorithm for factorization and its experimental implementation. <i>Physical Review Letters</i> , 2008 , 101, 220405	7.4	89
102	Experimental observation of Lee-Yang zeros. <i>Physical Review Letters</i> , 2015 , 114, 010601	7.4	85
101	Detection of quantum critical points by a probe qubit. <i>Physical Review Letters</i> , 2008 , 100, 100501	7.4	81
100	Quantum phase transition of ground-state entanglement in a Heisenberg spin chain simulated in an NMR quantum computer. <i>Physical Review A</i> , 2005 , 71,	2.6	81
99	Performance comparison of dynamical decoupling sequences for a qubit in a rapidly fluctuating spin bath. <i>Physical Review A</i> , 2010 , 82,	2.6	68
98	Experimental realization of quantum algorithm for solving linear systems of equations. <i>Physical Review A</i> , 2014 , 89,	2.6	53
97	Simulation of chemical isomerization reaction dynamics on a NMR quantum simulator. <i>Physical Review Letters</i> , 2011 , 107, 020501	7.4	51
96	Quantification of complementarity in multiqubit systems. <i>Physical Review A</i> , 2005 , 72,	2.6	44
95	Single-Loop and Composite-Loop Realization of Nonadiabatic Holonomic Quantum Gates in a Decoherence-Free Subspace. <i>Physical Review Applied</i> , 2019 , 12,	4.3	43
94	Preparation of pseudo-pure states by line-selective pulses in nuclear magnetic resonance. <i>Chemical Physics Letters</i> , 2001 , 340, 509-516	2.5	42

93	Solving quantum ground-state problems with nuclear magnetic resonance. <i>Scientific Reports</i> , 2011 , 1, 88	4.9	38
92	Observation of the ground-state geometric phase in a Heisenberg XY model. <i>Physical Review Letters</i> , 2010 , 105, 240405	7.4	33
91	Factorizing numbers with the Gauss sum technique: NMR implementations. <i>Physical Review A</i> , 2007 , 75,	2.6	32
90	Experimental Test of Heisenberg's Measurement Uncertainty Relation Based on Statistical Distances. <i>Physical Review Letters</i> , 2016 , 116, 160405	7.4	31
89	Experimental observation of a topological phase in the maximally entangled state of a pair of qubits. <i>Physical Review A</i> , 2007 , 76,	2.6	31
88	Tomography is Necessary for Universal Entanglement Detection with Single-Copy Observables. <i>Physical Review Letters</i> , 2016 , 116, 230501	7.4	30
87	Experimental realization of a compressed quantum simulation of a 32-spin Ising chain. <i>Physical Review Letters</i> , 2014 , 112, 220501	7.4	29
86	Quantum chemistry simulation on quantum computers: theories and experiments. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 9411-20	3.6	27
85	Experimental demonstration of probabilistic quantum cloning. <i>Physical Review Letters</i> , 2011 , 106, 180404	7.4	26
84	Iterative quantum-state transfer along a chain of nuclear spin qubits. <i>Physical Review A</i> , 2007 , 76,	2.6	26
83	Experimental benchmarking of quantum control in zero-field nuclear magnetic resonance. <i>Science Advances</i> , 2018 , 4, eaar6327	14.3	25
82	Quantum Image Processing and Its Application to Edge Detection: Theory and Experiment. <i>Physical Review X</i> , 2017 , 7,	9.1	25
81	Experimental simulation of the Unruh effect on an NMR quantum simulator. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016 , 59, 1	3.6	23
80	Experimental generation of pseudo-bound-entanglement. <i>Physical Review A</i> , 2010 , 81,	2.6	23
79	Speedup of quantum-state transfer by three-qubit interactions: Implementation by nuclear magnetic resonance. <i>Physical Review A</i> , 2006 , 73,	2.6	23
78	Experimental implementation of a quantum random-walk search algorithm using strongly dipolar coupled spins. <i>Physical Review A</i> , 2010 , 81,	2.6	22
77	Experimentally probing topological order and its breakdown through modular matrices. <i>Nature Physics</i> , 2018 , 14, 160-165	16.2	21
76	Experimental implementation of adiabatic passage between different topological orders. <i>Physical Review Letters</i> , 2014 , 113, 080404	7.4	21

75	An interferometric complementarity experiment in a bulk nuclear magnetic resonance ensemble. <i>Journal of Physics A</i> , 2003 , 36, 2555-2563		21
74	Experimental quantum multimeter and one-qubit fingerprinting. <i>Physical Review A</i> , 2006 , 74,	2.6	20
73	Experimental implementation of Hogg's algorithm on a three-quantum-bit NMR quantum computer. <i>Physical Review A</i> , 2002 , 65,	2.6	20
72	Quantum state and process tomography via adaptive measurements. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016 , 59, 1	3.6	19
71	Experimental Demonstration of Observability and Operability of Robustness of Coherence. <i>Physical Review Letters</i> , 2018 , 120, 230504	7.4	19
70	An improved differential evolution algorithm for learning high-fidelity quantum controls. <i>Science Bulletin</i> , 2019 , 64, 1402-1408	10.6	19
69	Preparation of Greenberger-Horne-Zeilinger and W states on a one-dimensional Ising chain by global control. <i>Physical Review A</i> , 2013 , 87,	2.6	19
68	Spin qubits for quantum simulations. <i>Frontiers of Physics in China</i> , 2010 , 5, 1-25		19
67	NMR implementation of factoring large numbers with Gauss sums: Suppression of ghost factors. <i>Europhysics Letters</i> , 2008 , 84, 40006	1.6	19
66	High fidelity quantum memory via dynamical decoupling: theory and experiment. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011 , 44, 154003	1.3	18
65	Preparing Greenberger-Horne-Zeilinger and W states on a long-range Ising spin model by global controls. <i>Physical Review A</i> , 2017 , 95,	2.6	17
64	Ground-state entanglement in a system with many-body interactions. <i>Physical Review A</i> , 2010 , 81,	2.6	17
63	Experimental demonstration of a quantum annealing algorithm for the traveling salesman problem in a nuclear-magnetic-resonance quantum simulator. <i>Physical Review A</i> , 2011 , 83,	2.6	17
62	Heat-bath algorithmic cooling with correlated qubit-environment interactions. <i>New Journal of Physics</i> , 2017 , 19, 113047	2.9	16
61	Pure-state tomography with the expectation value of Pauli operators. <i>Physical Review A</i> , 2016 , 93,	2.6	16
60	Effect of system level structure and spectral distribution of the environment on the decoherence rate. <i>Physical Review A</i> , 2007 , 75,	2.6	16
59	Experimental demonstration of a unified framework for mixed-state geometric phases. <i>Europhysics Letters</i> , 2011 , 94, 20007	1.6	15
58	Experimental demonstration of the quantum Zeno effect in NMR with entanglement-based measurements. <i>Physical Review A</i> , 2013 , 87,	2.6	13

57	Realization of entanglement-assisted qubit-covariant symmetric-informationally-complete positive-operator-valued measurements. <i>Physical Review A</i> , 2006 , 74,	2.6	12
56	Magnetic Gradiometer for the Detection of Zero- to Ultralow-Field Nuclear Magnetic Resonance. <i>Physical Review Applied</i> , 2019 , 11,	4.3	11
55	Uncertainty equality with quantum memory and its experimental verification. <i>Npj Quantum Information</i> , 2019 , 5,	8.6	11
54	Experimental demonstration of nonlinear quantum metrology with optimal quantum state. <i>Science Bulletin</i> , 2018 , 63, 469-476	10.6	11
53	Universal quantum control in zero-field nuclear magnetic resonance. <i>Physical Review A</i> , 2017 , 95,	2.6	11
52	Quantum Simulation of Resonant Transitions for Solving the Eigenproblem of an Effective Water Hamiltonian. <i>Physical Review Letters</i> , 2019 , 122, 090504	7.4	10
51	Characterization of Arbitrary-Order Correlations in Quantum Baths by Weak Measurement. <i>Physical Review Letters</i> , 2019 , 123, 050603	7.4	10
50	Quantitative complementarity between local and nonlocal character of quantum states in a three-qubit system. <i>Physical Review A</i> , 2008 , 77,	2.6	10
49	Floquet maser. <i>Science Advances</i> , 2021 , 7,	14.3	10
48	Experimental preparation of Greenberger-Horne-Zeilinger states in an Ising spin model by partially suppressing the nonadiabatic transitions. <i>Physical Review A</i> , 2019 , 99,	2.6	9
47	Experimental demonstration of the Deutsch-Jozsa algorithm in homonuclear multispin systems. <i>Physical Review A</i> , 2011 , 84,	2.6	9
46	An Efficient Exact Quantum Algorithm for the Integer Square-free Decomposition Problem. <i>Scientific Reports</i> , 2012 , 2, 260	4.9	9
45	"Spectral implementation" for creating a labeled pseudo-pure state and the Bernstein-Vazirani algorithm in a four-qubit nuclear magnetic resonance quantum processor. <i>Journal of Chemical Physics</i> , 2004 , 120, 3579-85	3.9	9
44	Probe optimization for quantum metrology via closed-loop learning control. <i>Npj Quantum Information</i> , 2020 , 6,	8.6	9
43	Floquet-engineered quantum state transfer in spin chains. <i>Science Bulletin</i> , 2019 , 64, 888-895	10.6	8
42	Quantum speedup in solving the maximal-clique problem. <i>Physical Review A</i> , 2018 , 97,	2.6	8
41	Experimental observation of topological transitions in interacting multispin systems. <i>Physical Review A</i> , 2016 , 93,	2.6	8
40	Experimental demonstration of deterministic one-way quantum computation on a NMR quantum computer. <i>Physical Review A</i> , 2010 , 81,	2.6	8

39	Measuring complete quantum states with a single observable. <i>Physical Review A</i> , 2007 , 76,	2.6	8
38	Experimental testing of complementarity for ensemble-averaged spin states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2001 , 34, 4349-4357	1.3	8
37	Selective-pulse-network compilation on a liquid-state nuclear-magnetic-resonance system. <i>Physical Review A</i> , 2016 , 94,	2.6	7
36	Search for axion-like dark matter with spin-based amplifiers. <i>Nature Physics</i> ,	16.2	7
35	Approximation of reachable sets for coherently controlled open quantum systems: Application to quantum state engineering. <i>Physical Review A</i> , 2016 , 94,	2.6	7
34	Numerical optimal control of spin systems at zero magnetic field. <i>Physical Review A</i> , 2018 , 97,	2.6	6
33	Generic preparation and entanglement detection of equal superposition states. <i>Science China: Physics, Mechanics and Astronomy</i> , 2017 , 60, 1	3.6	6
32	Experimental demonstration of simplified quantum process tomography. <i>Journal of Chemical Physics</i> , 2013 , 138, 024318	3.9	6
31	Experimental Realization of Shortcuts to Adiabaticity in a Nonintegrable Spin Chain by Local Counterdiabatic Driving. <i>Physical Review Applied</i> , 2020 , 13,	4.3	6
30	Interference in Atomic Magnetometry. <i>Advanced Quantum Technologies</i> , 2020 , 3, 2000078	4.3	5
29	Time-optimal control of independent spin-1/2 systems under simultaneous control. <i>Physical Review A</i> , 2018 , 98,	2.6	5
28	Quantum simulation of interaction blockade in a two-site Bose-Hubbard system with solid quadrupolar crystal. <i>New Journal of Physics</i> , 2015 , 17, 053028	2.9	4
27	Hybrid magic state distillation for universal fault-tolerant quantum computation. <i>Physical Review A</i> , 2015 , 91,	2.6	4
26	Combining the synergistic control capabilities of modeling and experiments: Illustration of finding a minimum-time quantum objective. <i>Physical Review A</i> , 2020 , 101,	2.6	4
25	Determining an n-qubit state by a single apparatus through a pairwise interaction. <i>Physical Review A</i> , 2014 , 89,	2.6	4
24	Determining an unknown state of a high-dimensional quantum system with a single, factorized observable. <i>Physical Review A</i> , 2011 , 83,	2.6	4
23	Preparing Pseudo-Pure States in a Quadrupolar Spin System Using Optimal Control. <i>Chinese Physics Letters</i> , 2012 , 29, 127601	1.8	4
22	Revisiting spin-lattice relaxation time measurements for dilute spins in high-resolution solid-state NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2016 , 268, 107-113	3	4

21	Hybrid quantum-classical approach to enhanced quantum metrology. <i>Scientific Reports</i> , 2021 , 11, 672	4.9	4
20	Engineering spin Hamiltonians using multiple pulse sequences in solid state NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2018 , 294, 83-92	3	4
19	Feedback control for manipulating magnetization in spin-exchange optical pumping system. <i>Science China: Physics, Mechanics and Astronomy</i> , 2018 , 61, 1	3.6	3
18	Quantum control of nuclear magnetic resonance spin systems. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2015 , 64, 167601	0.6	3
17	Optimizing adiabatic quantum pathways via a learning algorithm. <i>Physical Review A</i> , 2020 , 102,	2.6	3
16	Experimental preparation of topologically ordered states via adiabatic evolution. <i>Science China: Physics, Mechanics and Astronomy</i> , 2019 , 62, 1	3.6	2
15	Revealing weak histidine N homonuclear scalar couplings using Solid-State Magic-Angle-Spinning NMR spectroscopy. <i>Journal of Magnetic Resonance</i> , 2020 , 316, 106757	3	2
14	Experimental study of quantum simulation for quantum chemistry with a nuclear magnetic resonance simulator. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2012 , 370, 4734-47	3	2
13	Search for exotic spin-dependent interactions with a spin-based amplifier. <i>Science Advances</i> , 2021 , 7, eabi9535	14.3	2
12	Assessing three closed-loop learning algorithms by searching for high-quality quantum control pulses. <i>Physical Review A</i> , 2020 , 102,	2.6	2
11	Experimentally simulating the violation of Bell-type inequalities for generalized GHZ states. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2009 , 373, 4222-4226	2.3	1
10	Collision-Sensitive Spin Noise. <i>Physical Review Applied</i> , 2022 , 17,	4.3	1
9	Experimental quantum simulation of superradiant phase transition beyond no-go theorem via antisqueezing. <i>Nature Communications</i> , 2021 , 12, 6281	17.4	1
8	Experimental technique for multi-qubit nuclear magnetic resonance system. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2017 , 66, 150302	0.6	1
7	Subspace controllability of symmetric spin networks. <i>Physical Review A</i> , 2020 , 102,	2.6	1
6	Experimental cryptographic verification for near-term quantum cloud computing. <i>Science Bulletin</i> , 2021 , 66, 23-28	10.6	1
5	Zero- to ultralow-field nuclear magnetic resonance and its applications. <i>Fundamental Research</i> , 2021 , 1, 68-84		1
4	Experimental study of quantum coherence decomposition and trade-off relations in a tripartite system. <i>Npj Quantum Information</i> , 2021 , 7,	8.6	1

- 3 Algorithmic cooling based on cross-relaxation and decoherence-free subspace. *Science China: Physics, Mechanics and Astronomy*, **2020**, 63, 1 3.6 ○
- 2 Transient NOE enhancement in solid-state MAS NMR of mobile systems. *Journal of Magnetic Resonance*, **2017**, 284, 73-79 3 ○
- 1 Experimental Observation of the Ground-State Geometric Phase of Three-Spin XY Model. *Chinese Physics Letters*, **2016**, 33, 060301 1.8