

Bi-Heng Liu

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

2,857
citations

218677

26
h-index

182427

51
g-index

80
all docs

80
docs citations

80
times ranked

2309
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental control of the transition from Markovian to non-Markovian dynamics of open quantum systems. <i>Nature Physics</i> , 2011, 7, 931-934.	16.7	442
2	Metalens-array-based high-dimensional and multiphoton quantum source. <i>Science</i> , 2020, 368, 1487-1490.	12.6	239
3	Experimental generation of an eight-photon Greenberger-Horne-Zeilinger state. <i>Nature Communications</i> , 2011, 2, 546.	12.8	148
4	Long-Distance Entanglement Purification for Quantum Communication. <i>Physical Review Letters</i> , 2021, 126, 010503.	7.8	129
5	Beating the channel capacity limit for superdense coding with entangled ququarts. <i>Science Advances</i> , 2018, 4, eaat9304.	10.3	119
6	Experimental High-Dimensional Quantum Teleportation. <i>Physical Review Letters</i> , 2020, 125, 230501.	7.8	109
7	Photonic realization of nonlocal memory effects and non-Markovian quantum probes. <i>Scientific Reports</i> , 2013, 3, .	3.3	81
8	Experimental Transmission of Quantum Information Using a Superposition of Causal Orders. <i>Physical Review Letters</i> , 2020, 124, 030502.	7.8	79
9	Experimental Greenberger-Horne-Zeilinger-Type Six-Photon Quantum Nonlocality. <i>Physical Review Letters</i> , 2015, 115, 260402.	7.8	72
10	Experimental investigation of the no-signalling principle in parity-time symmetric theory using an open quantum system. <i>Nature Photonics</i> , 2016, 10, 642-646.	31.4	70
11	Multiuser-to-multiuser entanglement distribution based on 1550 nm polarization-entangled photons. <i>Science Bulletin</i> , 2015, 60, 1128-1132.	9.0	64
12	Distribution of high-dimensional orbital angular momentum entanglement over a 1-km few-mode fiber. <i>Optica</i> , 2020, 7, 232.	9.3	59
13	Demonstration of one-dimensional quantum random walks using orbital angular momentum of photons. <i>Physical Review A</i> , 2007, 75, .	2.5	55
14	Experimental demonstration of phase measurement precision beating standard quantum limit by projection measurement. <i>Europhysics Letters</i> , 2008, 82, 24001.	2.0	53
15	Experimental Test of Compatibility-Loophole-Free Contextuality with Spatially Separated Entangled Qutrits. <i>Physical Review Letters</i> , 2016, 117, 170403.	7.8	53
16	High-Visibility On-Chip Quantum Interference of Single Surface Plasmons. <i>Physical Review Applied</i> , 2014, 2, .	3.8	52
17	Efficient Generation of High-Dimensional Entanglement through Multipath Down-Conversion. <i>Physical Review Letters</i> , 2020, 125, 090503.	7.8	49
18	Advances in Quantum Dense Coding. <i>Advanced Quantum Technologies</i> , 2019, 2, 1900011.	3.9	47

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19	Efficient superdense coding in the presence of non-Markovian noise. Europhysics Letters, 2016, 114, 10005.	2.0	46
20	Experimental implementation of fully controlled dephasing dynamics and synthetic spectral densities. Nature Communications, 2018, 9, 3453.	12.8	43
21	Efficient distribution of high-dimensional entanglement through 11km fiber. Optica, 2020, 7, 738.	9.3	42
22	Experimental demonstration of quantum contextuality with nonentangled photons. Physical Review A, 2009, 80, .	2.5	40
23	Implementation of one-dimensional quantum walks on spin-orbital angular momentum space of photons. Physical Review A, 2010, 81, .	2.5	39
24	Detecting metrologically useful asymmetry and entanglement by a few local measurements. Physical Review A, 2017, 96, .	2.5	37
25	Experimental Measurement-Device-Independent Quantum Steering and Randomness Generation Beyond Qubits. Physical Review Letters, 2019, 123, 170402.	7.8	36
26	Experimental one-step deterministic polarization entanglement purification. Science Bulletin, 2022, 67, 593-597.	9.0	30
27	Experimental certification for nonclassical teleportation. Quantum Engineering, 2019, 1, e13.	2.5	28
28	Four-photon interference with asymmetric beam splitters. Optics Letters, 2007, 32, 1320.	3.3	27
29	Spontaneous Parametric Down-Conversion Sources for Multiphoton Experiments. Advanced Quantum Technologies, 2021, 4, 2000132.	3.9	27
30	Pathways for Entanglement-Based Quantum Communication in the Face of High Noise. Physical Review Letters, 2021, 127, 110505.	7.8	27
31	Nonlocality from Local Contextuality. Physical Review Letters, 2016, 117, 220402.	7.8	26
32	Demonstrating Quantum Coherence and Metrology that is Resilient to Transversal Noise. Physical Review Letters, 2019, 123, 180504.	7.8	24
33	Experimental verification of genuine multipartite entanglement without shared reference frames. Science Bulletin, 2016, 61, 714-719.	9.0	22
34	Arbitrary two-particle high-dimensional Bell-state measurement by auxiliary entanglement. Physical Review A, 2019, 99, .	2.5	21
35	Observation of a generalized bunching effect of six photons. Optics Letters, 2009, 34, 1297.	3.3	20
36	Experimental test of state-independent quantum contextuality of an indivisible quantum system. Physical Review A, 2013, 87, .	2.5	20

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37	Experimental test of the trade-off relation for quantum coherence. <i>Physical Review A</i> , 2018, 98, .	2.5	20
38	Experimental demonstration of robust self-testing for bipartite entangled states. <i>Npj Quantum Information</i> , 2019, 5, .	6.7	20
39	Experimental realization of sequential weak measurements of non-commuting Pauli observables. <i>Optics Express</i> , 2019, 27, 6089.	3.4	19
40	Observation of Stronger-than-Binary Correlations with Entangled Photonic Qutrits. <i>Physical Review Letters</i> , 2018, 120, 180402.	7.8	18
41	On-chip path encoded photonic quantum Toffoli gate. <i>Photonics Research</i> , 2022, 10, 1533.	7.0	18
42	Demonstration of controllable temporal distinguishability in a three-photon state. <i>Europhysics Letters</i> , 2007, 77, 24003.	2.0	17
43	Time-invariant entanglement and sudden death of nonlocality. <i>Physical Review A</i> , 2016, 94, .	2.5	17
44	Experimental test of fine-grained entropic uncertainty relation in the presence of quantum memory. <i>Scientific Reports</i> , 2019, 9, 8748.	3.3	16
45	Experimental creation of multi-photon high-dimensional layered quantum states. <i>Npj Quantum Information</i> , 2020, 6, .	6.7	16
46	Entanglement Swapping and Quantum Correlations via Symmetric Joint Measurements. <i>Physical Review Letters</i> , 2022, 129, .	7.8	16
47	Generation and applications of an ultrahigh-fidelity four-photon Greenberger-Horne-Zeilinger state. <i>Optics Express</i> , 2016, 24, 27059.	3.4	15
48	Experimental witness of genuine high-dimensional entanglement. <i>Physical Review A</i> , 2018, 97, .	2.5	14
49	Experimental creation of superposition of unknown photonic quantum states. <i>Physical Review A</i> , 2016, 94, .	2.5	13
50	Experimental realization of high-fidelity teleportation via a non-Markovian open quantum system. <i>Physical Review A</i> , 2020, 102, .	2.5	13
51	Entanglement Detection by Violations of Noisy Uncertainty Relations: A Proof of Principle. <i>Physical Review Letters</i> , 2019, 122, 220401.	7.8	12
52	Experimental test of genuine multipartite nonlocality under the no-signalling principle. <i>Scientific Reports</i> , 2016, 6, 39327.	3.3	10
53	Experimental generation of a high-fidelity four-photon linear cluster state. <i>Physical Review A</i> , 2016, 93, .	2.5	10
54	Quantum gambling based on Nash-equilibrium. <i>Npj Quantum Information</i> , 2017, 3, .	6.7	10

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55	Nonlocality, Steering, and Quantum State Tomography in a Single Experiment. <i>Physical Review Letters</i> , 2021, 127, 020401.	7.8	10
56	Experimental realization of path-polarization hybrid high-dimensional pure state. <i>Optics Express</i> , 2018, 26, 28918.	3.4	10
57	Linear optical implementation of perfect discrimination between single-bit unitary operations. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2008, 41, 195501.	1.5	9
58	Polarization nondegenerate fiber Fabry-Perot cavities with large tunable splittings. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	9
59	Universal Photonic Quantum Interface for a Quantum Network. <i>Physical Review Applied</i> , 2018, 10, .	3.8	9
60	Investigation of the role of indistinguishability in photon bunching and stimulated emission. <i>Physical Review A</i> , 2009, 79, .	2.5	8
61	Experimental Demonstration of Instrument-Specific Quantum Memory Effects and Non-Markovian Process Recovery for Common-Cause Processes. <i>Physical Review Letters</i> , 2021, 126, 230401.	7.8	7
62	Simultaneous observation of quantum contextuality and quantum nonlocality. <i>Science Bulletin</i> , 2018, 63, 1092-1095.	9.0	6
63	Measurement-device-independent quantification of irreducible high-dimensional entanglement. <i>Npj Quantum Information</i> , 2020, 6, .	6.7	6
64	Experimental observation of quantum nonlocality in general networks with different topologies. <i>Fundamental Research</i> , 2021, 1, 22-26.	3.3	6
65	Realization of entanglement-assisted weak-value amplification in a photonic system. <i>Physical Review A</i> , 2019, 99, .	2.5	5
66	Generation of Nondegenerate Narrow-Band Photon Pairs for a Hybrid Quantum Network. <i>Physical Review Applied</i> , 2015, 4, .	3.8	4
67	Experimental demonstration of genuine multipartite quantum nonlocality without shared reference frames. <i>Physical Review A</i> , 2016, 93, .	2.5	4
68	Optimized Detection of High-Dimensional Entanglement. <i>Physical Review Letters</i> , 2021, 127, 220501.	7.8	4
69	Experimental Demonstration of a Hybrid-Quantum-Emitter Producing Individual Entangled Photon Pairs in the Telecom Band. <i>Scientific Reports</i> , 2016, 6, 26680.	3.3	3
70	Rotation of polarization of a multiphoton state. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 353, 291-294.	2.1	2
71	Preparation of multi-photon states without optical interferometers. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 365, 389-392.	2.1	1
72	Experimental demonstration of decoherence-induced spontaneous symmetry breaking. <i>Physical Review A</i> , 2011, 83, .	2.5	1

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73	Experimental Demonstration of Largeness in Bipartite Entanglement Sudden Death. Chinese Physics Letters, 2011, 28, 070308.	3.3	1
74	Experimental investigation of the no-signalling principle in parity-time symmetric theory using an open quantum system. , 0, .		1
75	Observation of the tradeoff between internal quantum nonseparability and external classical correlations. Physical Review A, 2021, 104, .	2.5	1
76	Spectrum Analysis of a Pulsed Photon Source Generated from Periodically Poled Lithium Niobate. Chinese Physics Letters, 2011, 28, 074212.	3.3	0
77	High visibility on-chip quantum interference of single surface plasmons. , 2015, , .		0
78	Propagation of quantum signal in plasmonic waveguides. , 2015, , .		0