

Zheshen Zhang

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,220
citations

236833

25
h-index

265120

42
g-index

80
all docs

80
docs citations

80
times ranked

1462
citing authors

#	ARTICLE	IF	CITATIONS
1	Entanglement-Enhanced Sensing in a Lossy and Noisy Environment. <i>Physical Review Letters</i> , 2015, 114, 110506.	2.9	193
2	Development of Quantum Interconnects (QICs) for Next-Generation Information Technologies. <i>PRX Quantum</i> , 2021, 2, .	3.5	172
3	Photon-efficient quantum key distribution using time-energy entanglement with high-dimensional encoding. <i>New Journal of Physics</i> , 2015, 17, 022002.	1.2	150
4	Optimum Mixed-State Discrimination for Noisy Entanglement-Enhanced Sensing. <i>Physical Review Letters</i> , 2017, 118, 040801.	2.9	139
5	High-dimensional quantum key distribution using dispersive optics. <i>Physical Review A</i> , 2013, 87, .	1.0	136
6	Distributed quantum sensing using continuous-variable multipartite entanglement. <i>Physical Review A</i> , 2018, 97, .	1.0	130
7	Entanglement's Benefit Survives an Entanglement-Breaking Channel. <i>Physical Review Letters</i> , 2013, 111, 010501.	2.9	114
8	Demonstration of a Reconfigurable Entangled Radio-Frequency Photonic Sensor Network. <i>Physical Review Letters</i> , 2020, 124, 150502.	2.9	88
9	Unconditional Security of Time-Energy Entanglement Quantum Key Distribution Using Dual-Basis Interferometry. <i>Physical Review Letters</i> , 2014, 112, 120506.	2.9	78
10	Quantum identity authentication based on ping-pong technique for photons. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 356, 199-205.	0.9	71
11	Distributed quantum sensing. <i>Quantum Science and Technology</i> , 2021, 6, 043001.	2.6	70
12	A 24 km fiber-based discretely signaled continuous variable quantum key distribution system. <i>Optics Express</i> , 2009, 17, 24244.	1.7	69
13	Efficient generation and characterization of spectrally factorable biphotons. <i>Optics Express</i> , 2017, 25, 7300.	1.7	55
14	Practical Route to Entanglement-Assisted Communication Over Noisy Bosonic Channels. <i>Physical Review Applied</i> , 2020, 13, .	1.5	54
15	Entanglement-based quantum communication secured by nonlocal dispersion cancellation. <i>Physical Review A</i> , 2014, 90, .	1.0	53
16	Entanglement-enhanced Neyman-Pearson target detection using quantum illumination. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 1567.	0.9	48
17	Entanglement-enhanced lidars for simultaneous range and velocity measurements. <i>Physical Review A</i> , 2017, 96, .	1.0	45
18	Floodlight quantum key distribution: A practical route to gigabit-per-second secret-key rates. <i>Physical Review A</i> , 2016, 94, .	1.0	44

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19	Quantum illumination for enhanced detection of Rayleigh-fading targets. <i>Physical Review A</i> , 2017, 96, .	1.0	36
20	Entanglement-Assisted Absorption Spectroscopy. <i>Physical Review Letters</i> , 2020, 125, 180502.	2.9	36
21	Full-band quantum-dynamical theory of saturation and four-wave mixing in graphene. <i>Optics Letters</i> , 2011, 36, 4569.	1.7	35
22	Secure communication via quantum illumination. <i>Quantum Information Processing</i> , 2014, 13, 2171-2193.	1.0	31
23	Practical high-dimensional quantum key distribution with decoy states. <i>Physical Review A</i> , 2015, 91, .	1.0	31
24	Quantum computing with multidimensional continuous-variable cluster states in a scalable photonic platform. <i>Physical Review Research</i> , 2020, 2, .	1.3	30
25	Physical-Layer Supervised Learning Assisted by an Entangled Sensor Network. <i>Physical Review X</i> , 2019, 9, .	2.8	29
26	Experimental quantum key distribution at 1.3 gigabit-per-second secret-key rate over a 10 dB loss channel. <i>Quantum Science and Technology</i> , 2018, 3, 025007.	2.6	25
27	Entanglement-Assisted Communication Surpassing the Ultimate Classical Capacity. <i>Physical Review Letters</i> , 2021, 126, 250501.	2.9	25
28	Quantum key distribution using basis encoding of Gaussian-modulated coherent states. <i>Physical Review A</i> , 2018, 97, .	1.0	23
29	Quantum-Enhanced Data Classification with a Variational Entangled Sensor Network. <i>Physical Review X</i> , 2021, 11, .	2.8	23
30	Repeater-enhanced distributed quantum sensing based on continuous-variable multipartite entanglement. <i>Physical Review A</i> , 2019, 99, .	1.0	21
31	Floodlight quantum key distribution: Demonstrating a framework for high-rate secure communication. <i>Physical Review A</i> , 2017, 95, .	1.0	19
32	Wave-Function Engineering for Spectrally Uncorrelated Biphotons in the Telecommunication Band Based on a Machine-Learning Framework. <i>Physical Review Applied</i> , 2019, 12, .	1.5	18
33	Large-alphabet encoding for higher-rate quantum key distribution. <i>Optics Express</i> , 2019, 27, 17539.	1.7	17
34	Finite-key analysis of high-dimensional time-energy entanglement-based quantum key distribution. <i>Quantum Information Processing</i> , 2015, 14, 1005-1015.	1.0	13
35	Security-proof framework for two-way Gaussian quantum-key-distribution protocols. <i>Physical Review A</i> , 2018, 98, .	1.0	13
36	Security of a discretely signaled continuous variable quantum key distribution protocol for high rate systems. <i>Optics Express</i> , 2009, 17, 12090.	1.7	12

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37	Covert sensing using floodlight illumination. <i>Physical Review A</i> , 2019, 99, .	1.0	12
38	Entanglement-assisted capacity regions and protocol designs for quantum multiple-access channels. <i>Npj Quantum Information</i> , 2021, 7, .	2.8	11
39	Demonstration of Entanglement-Enhanced Covert Sensing. <i>Physical Review Letters</i> , 2022, 129, .	2.9	11
40	Continuous-variable quantum repeaters based on bosonic error-correction and teleportation: architecture and applications. <i>Quantum Science and Technology</i> , 2022, 7, 025018.	2.6	8
41	High-order encoding schemes for floodlight quantum key distribution. <i>Physical Review A</i> , 2018, 98, .	1.0	7
42	High-rate large-alphabet quantum key distribution over deployed telecom fiber. , 2016, , .		5
43	High Dimensional Quantum Key Distribution with Biphoton Frequency Combs through Energy-Time Entanglement. , 2019, , .		3
44	Floodlight Quantum Key Distribution. , 2016, , .		2
45	Entanglement Distribution and Routing in a Multi-node Quantum Network Testbed. , 2021, , .		2
46	Experimental Quantum Key Distribution at 1.3 Gbit/s Secret-Key Rate over a 10-dB-Loss Channel. , 2018, , .		2
47	The quantum noise of guided wave acoustic Brillouin scattering with applications to continuous-variable quantum key distribution. <i>Journal of Modern Optics</i> , 2011, 58, 988-993.	0.6	1
48	Entanglement-Assisted Communication Surpassing the Ultimate Classical Capacity. , 2021, , .		1
49	Quantum-enhanced data classification with a variational entangled sensor network. , 2021, , .		1
50	Experimental Demonstration of Quantum Sensing in the Presence of Quantum Decoherence. , 2015, , .		1
51	Large-Alphabet Encoding Schemes for Floodlight Quantum Key Distribution. , 2017, , .		1
52	Frequency-Multiplexed Rate-Adaptive Quantum Key Distribution with High-Dimensional Encoding. , 2020, , .		1
53	Photon-Efficient High-Dimensional Quantum Key Distribution. , 2014, , .		1
54	Practical High-Dimensional Quantum Key Distribution with Decoy States. , 2015, , .		1

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55	Optimum Mixed-State Discrimination for Noisy Entanglement-Enhanced Sensing. , 2017, , .		1
56	Entanglement-Enhanced Physical-Layer Classifier Using Supervised Machine Learning. , 2019, , .		1
57	Experimental Demonstration of an Entangled Radiofrequency-Photonic Sensor Network. , 2020, , .		1
58	Use of discrete modulation and a continuous wave local oscillator in a 24 km continuous variable quantum key distribution system. , 2010, , .		0
59	High-dimensional time-energy entanglement-based quantum key distribution using dispersive optics. , 2014, , .		0
60	Entanglement-Assisted Absorption Spectroscopy. , 2021, , .		0
61	Entanglement-assisted multiple-access channels: capacity regions and protocol designs. , 2021, , .		0
62	Adaptive-Optics Enhanced Distribution of Entangled Photons over Turbulent Free-Space Optical Channels. , 2021, , .		0
63	Security of a Discretely Signaled Continuous Variable QKD Protocol against Collective Attacks. , 2008, , .		0
64	A provably secure streamcipher based on a high speed quantum random number generator. , 2010, , .		0
65	A quantum theory of four-wave mixing in graphene. , 2011, , .		0
66	Experimental Demonstration of Secure Communication based on Quantum Illumination. , 2013, , .		0
67	Quantum Communication Using Time-energy Entangled Photons. , 2014, , .		0
68	Demonstration of Loss-Tolerant Quantum Key Distribution. , 2016, , .		0
69	Floodlight Quantum Key Distribution. , 2016, , .		0
70	Generation and characterization of factorable biphotons with 99% spectral purity. , 2017, , .		0
71	Distributed Quantum Sensing Using Continuous-Variable Multipartite Entanglement. , 2018, , .		0
72	Entanglement-Based Distributed Quantum Sensing Enhanced by Quantum Relays. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
73	Indistinguishable Photon Source in the 1550-nm Band Optimized by Machine Learning. , 2019, , .		0
74	Practical route to entanglement-enhanced communication over noisy bosonic channels. , 2020, , .		0
75	Practical route to entanglement-enhanced communication over noisy bosonic channels. , 2020, , .		0
76	Entanglement-Enhanced Physical-Layer Classifier Using Supervised Machine Learning. , 2020, , .		0
77	Experimental Demonstration of a Reconfigurable Entangled Radiofrequency-Photonic Sensor Network. , 2020, , .		0
78	Entangled Sensor Networks Empowered by Machine Learning. , 2021, , .		0
79	Entanglement-assisted multiple-access channels: capacity regions and protocol designs. , 2021, , .		0
80	Entanglement-Assisted Communication Surpassing the Ultimate Classical Capacity. , 2021, , .		0