

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 | Continuous-variable quantum repeaters based on bosonic error-correction and teleportation: architecture and applications. Quantum Science and Technology, 2022, 7, 025018. | 2.6 | 8 |
| 2 | Demonstration of Entanglement-Enhanced Covert Sensing. Physical Review Letters, 2022, 129, . | 2.9 | 11 |
| 3 | Entanglement-Assisted Absorption Spectroscopy. , 2021, , . | | 0 |
| 4 | Entanglement Distribution and Routing in a Multi-node Quantum Network Testbed. , 2021, , . | | 2 |
| 5 | Development of Quantum Interconnects (QICs) for Next-Generation Information Technologies. PRX Quantum, 2021, 2, . | 3.5 | 172 |
| 6 | Entanglement-assisted capacity regions and protocol designs for quantum multiple-access channels. Npj Quantum Information, 2021, 7, . | 2.8 | 11 |
| 7 | Entanglement-Assisted Communication Surpassing the Ultimate Classical Capacity. Physical Review Letters, 2021, 126, 250501. | 2.9 | 25 |
| 8 | Quantum-Enhanced Data Classification with a Variational Entangled Sensor Network. Physical Review X, 2021, 11, . | 2.8 | 23 |
| 9 | Distributed quantum sensing. Quantum Science and Technology, 2021, 6, 043001. | 2.6 | 70 |
| 10 | Entanglement-assisted multiple-access channels: capacity regions and protocol designs. , 2021, , . | | 0 |
| 11 | Entanglement-Assisted Communication Surpassing the Ultimate Classical Capacity. , 2021, , . | | 1 |
| 12 | Quantum-enhanced data classification with a variational entangled sensor network. , 2021, , . | | 1 |
| 13 | Adaptive-Optics Enhanced Distribution of Entangled Photons over Turbulent Free-Space Optical Channels. , 2021, , . | | 0 |
| 14 | Entangled Sensor Networks Empowered by Machine Learning. , 2021, , . | | 0 |
| 15 | Entanglement-assisted multiple-access channels: capacity regions and protocol designs. , 2021, , . | | 0 |
| 16 | Entanglement-Assisted Communication Surpassing the Ultimate Classical Capacity. , 2021, , . | | 0 |
| 17 | Entanglement-Assisted Absorption Spectroscopy. Physical Review Letters, 2020, 125, 180502. | 2.9 | 36 |
| 18 | Practical Route to Entanglement-Assisted Communication Over Noisy Bosonic Channels. Physical Review Applied, 2020, 13, . | 1.5 | 54 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Demonstration of a Reconfigurable Entangled Radio-Frequency Photonic Sensor Network. <i>Physical Review Letters</i> , 2020, 124, 150502. | 2.9 | 88 |
| 20 | Quantum computing with multidimensional continuous-variable cluster states in a scalable photonic platform. <i>Physical Review Research</i> , 2020, 2, . | 1.3 | 30 |
| 21 | Frequency-Multiplexed Rate-Adaptive Quantum Key Distribution with High-Dimensional Encoding. , 2020, , . | | 1 |
| 22 | Experimental Demonstration of an Entangled Radiofrequency-Photonic Sensor Network. , 2020, , . | | 1 |
| 23 | Practical route to entanglement-enhanced communication over noisy bosonic channels. , 2020, , . | | 0 |
| 24 | Practical route to entanglement-enhanced communication over noisy bosonic channels. , 2020, , . | | 0 |
| 25 | Entanglement-Enhanced Physical-Layer Classifier Using Supervised Machine Learning. , 2020, , . | | 0 |
| 26 | Experimental Demonstration of a Reconfigurable Entangled Radiofrequency-Photonic Sensor Network. , 2020, , . | | 0 |
| 27 | Physical-Layer Supervised Learning Assisted by an Entangled Sensor Network. <i>Physical Review X</i> , 2019, 9, . | 2.8 | 29 |
| 28 | 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 |
| 29 | Covert sensing using floodlight illumination. <i>Physical Review A</i> , 2019, 99, . | 1.0 | 12 |
| 30 | Repeater-enhanced distributed quantum sensing based on continuous-variable multipartite entanglement. <i>Physical Review A</i> , 2019, 99, . | 1.0 | 21 |
| 31 | High Dimensional Quantum Key Distribution with Biphoton Frequency Combs through Energy-Time Entanglement. , 2019, , . | | 3 |
| 32 | Large-alphabet encoding for higher-rate quantum key distribution. <i>Optics Express</i> , 2019, 27, 17539. | 1.7 | 17 |
| 33 | Entanglement-Enhanced Physical-Layer Classifier Using Supervised Machine Learning. , 2019, , . | | 1 |
| 34 | Entanglement-Based Distributed Quantum Sensing Enhanced by Quantum Relays. , 2019, , . | | 0 |
| 35 | Indistinguishable Photon Source in the 1550-nm Band Optimized by Machine Learning. , 2019, , . | | 0 |
| 36 | Quantum key distribution using basis encoding of Gaussian-modulated coherent states. <i>Physical Review A</i> , 2018, 97, . | 1.0 | 23 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Distributed quantum sensing using continuous-variable multipartite entanglement. <i>Physical Review A</i> , 2018, 97, . | 1.0 | 130 |
| 38 | 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 |
| 39 | Security-proof framework for two-way Gaussian quantum-key-distribution protocols. <i>Physical Review A</i> , 2018, 98, . | 1.0 | 13 |
| 40 | High-order encoding schemes for floodlight quantum key distribution. <i>Physical Review A</i> , 2018, 98, . | 1.0 | 7 |
| 41 | Experimental Quantum Key Distribution at 1.3 Gbit/s Secret-Key Rate over a 10-dB-Loss Channel. , 2018, , . | | 2 |
| 42 | Distributed Quantum Sensing Using Continuous-Variable Multipartite Entanglement. , 2018, , . | | 0 |
| 43 | Optimum Mixed-State Discrimination for Noisy Entanglement-Enhanced Sensing. <i>Physical Review Letters</i> , 2017, 118, 040801. | 2.9 | 139 |
| 44 | Entanglement-enhanced lidars for simultaneous range and velocity measurements. <i>Physical Review A</i> , 2017, 96, . | 1.0 | 45 |
| 45 | Quantum illumination for enhanced detection of Rayleigh-fading targets. <i>Physical Review A</i> , 2017, 96, . | 1.0 | 36 |
| 46 | Floodlight quantum key distribution: Demonstrating a framework for high-rate secure communication. <i>Physical Review A</i> , 2017, 95, . | 1.0 | 19 |
| 47 | Efficient generation and characterization of spectrally factorable biphotons. <i>Optics Express</i> , 2017, 25, 7300. | 1.7 | 55 |
| 48 | 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 |
| 49 | Large-Alphabet Encoding Schemes for Floodlight Quantum Key Distribution. , 2017, , . | | 1 |
| 50 | Generation and characterization of factorable biphotons with 99% spectral purity. , 2017, , . | | 0 |
| 51 | Optimum Mixed-State Discrimination for Noisy Entanglement-Enhanced Sensing. , 2017, , . | | 1 |
| 52 | Floodlight Quantum Key Distribution. , 2016, , . | | 2 |
| 53 | Floodlight quantum key distribution: A practical route to gigabit-per-second secret-key rates. <i>Physical Review A</i> , 2016, 94, . | 1.0 | 44 |
| 54 | High-rate large-alphabet quantum key distribution over deployed telecom fiber. , 2016, , . | | 5 |

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|----|--|-----|-----------|
| 55 | Demonstration of Loss-Tolerant Quantum Key Distribution. , 2016, , . | | 0 |
| 56 | Floodlight Quantum Key Distribution. , 2016, , . | | 0 |
| 57 | Finite-key analysis of high-dimensional time-energy entanglement-based quantum key distribution. Quantum Information Processing, 2015, 14, 1005-1015. | 1.0 | 13 |
| 58 | Practical high-dimensional quantum key distribution with decoy states. Physical Review A, 2015, 91, . | 1.0 | 31 |
| 59 | Photon-efficient quantum key distribution using time-energy entanglement with high-dimensional encoding. New Journal of Physics, 2015, 17, 022002. | 1.2 | 150 |
| 60 | Entanglement-Enhanced Sensing in a Lossy and Noisy Environment. Physical Review Letters, 2015, 114, 110506. | 2.9 | 193 |
| 61 | Experimental Demonstration of Quantum Sensing in the Presence of Quantum Decoherence. , 2015, , . | | 1 |
| 62 | Practical High-Dimensional Quantum Key Distribution with Decoy States. , 2015, , . | | 1 |
| 63 | Entanglement-based quantum communication secured by nonlocal dispersion cancellation. Physical Review A, 2014, 90, . | 1.0 | 53 |
| 64 | Unconditional Security of Time-Energy Entanglement Quantum Key Distribution Using Dual-Basis Interferometry. Physical Review Letters, 2014, 112, 120506. | 2.9 | 78 |
| 65 | Secure communication via quantum illumination. Quantum Information Processing, 2014, 13, 2171-2193. | 1.0 | 31 |
| 66 | High-dimensional time-energy entanglement-based quantum key distribution using dispersive optics. , 2014, , . | | 0 |
| 67 | Quantum Communication Using Time-energy Entangled Photons. , 2014, , . | | 0 |
| 68 | Photon-Efficient High-Dimensional Quantum Key Distribution. , 2014, , . | | 1 |
| 69 | High-dimensional quantum key distribution using dispersive optics. Physical Review A, 2013, 87, . | 1.0 | 136 |
| 70 | Entanglement's Benefit Survives an Entanglement-Breaking Channel. Physical Review Letters, 2013, 111, 010501. | 2.9 | 114 |
| 71 | Experimental Demonstration of Secure Communication based on Quantum Illumination. , 2013, , . | | 0 |
| 72 | Full-band quantum-dynamical theory of saturation and four-wave mixing in graphene. Optics Letters, 2011, 36, 4569. | 1.7 | 35 |

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|----|--|-----|-----------|
| 73 | The quantum noise of guided wave acoustic Brillouin scattering with applications to continuous-variable quantum key distribution. Journal of Modern Optics, 2011, 58, 988-993. | 0.6 | 1 |
| 74 | A quantum theory of four-wave mixing in graphene. , 2011, , . | | 0 |
| 75 | Use of discrete modulation and a continuous wave local oscillator in a 24 km continuous variable quantum key distribution system. , 2010, , . | | 0 |
| 76 | A provably secure streamcipher based on a high speed quantum random number generator. , 2010, , . | | 0 |
| 77 | Security of a discretely signaled continuous variable quantum key distribution protocol for high rate systems. Optics Express, 2009, 17, 12090. | 1.7 | 12 |
| 78 | A 24 km fiber-based discretely signaled continuous variable quantum key distribution system. Optics Express, 2009, 17, 24244. | 1.7 | 69 |
| 79 | Security of a Discretely Signaled Continuous Variable QKD Protocol against Collective Attacks. , 2008, , . | | 0 |
| 80 | Quantum identity authentication based on ping-pong technique for photons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 356, 199-205. | 0.9 | 71 |