

Anton Zeilinger

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

11,107
citations

57719

44
h-index

79644

73
g-index

81
all docs

81
docs citations

81
times ranked

7123
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Experimental realization of any discrete unitary operator. Physical Review Letters, 1994, 73, 58-61. | 2.9 | 1,417 |
| 2 | Multiphoton entanglement and interferometry. Reviews of Modern Physics, 2012, 84, 777-838. | 16.4 | 1,007 |
| 3 | Significant-Loophole-Free Test of Bell's Theorem with Entangled Photons. Physical Review Letters, 2015, 115, 250401. | 2.9 | 932 |
| 4 | Experimental Demonstration of Free-Space Decoy-State Quantum Key Distribution over 144 km. Physical Review Letters, 2007, 98, 010504. | 2.9 | 589 |
| 5 | Satellite-Relayed Intercontinental Quantum Network. Physical Review Letters, 2018, 120, 030501. | 2.9 | 499 |
| 6 | Quantum imaging with undetected photons. Nature, 2014, 512, 409-412. | 13.7 | 487 |
| 7 | Twisted photons: new quantum perspectives in high dimensions. Light: Science and Applications, 2018, 7, 17146-17146. | 7.7 | 412 |
| 8 | Quantum discord as resource for remote state preparation. Nature Physics, 2012, 8, 666-670. | 6.5 | 397 |
| 9 | A wavelength-tunable fiber-coupled source of narrowband entangled photons. Optics Express, 2007, 15, 15377. | 1.7 | 349 |
| 10 | Twisted light transmission over 143 km. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13648-13653. | 3.3 | 276 |
| 11 | Multi-photon entanglement in high dimensions. Nature Photonics, 2016, 10, 248-252. | 15.6 | 253 |
| 12 | Advances in high-dimensional quantum entanglement. Nature Reviews Physics, 2020, 2, 365-381. | 11.9 | 234 |
| 13 | Quantum Teleportation in High Dimensions. Physical Review Letters, 2019, 123, 070505. | 2.9 | 228 |
| 14 | Active learning machine learns to create new quantum experiments. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1221-1226. | 3.3 | 208 |
| 15 | Quantum entanglement of angular momentum states with quantum numbers up to 10,010. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13642-13647. | 3.3 | 190 |
| 16 | Automated Search for new Quantum Experiments. Physical Review Letters, 2016, 116, 090405. | 2.9 | 177 |
| 17 | Experimental delayed-choice entanglement swapping. Nature Physics, 2012, 8, 479-484. | 6.5 | 171 |
| 18 | High-fidelity transmission of entanglement over a high-loss free-space channel. Nature Physics, 2009, 5, 389-392. | 6.5 | 165 |

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Experimental generation of single photons via active multiplexing. <i>Physical Review A</i> , 2011, 83, . | 1.0 | 165 |
| 20 | Interface between path and orbital angular momentum entanglement for high-dimensional photonic quantum information. <i>Nature Communications</i> , 2014, 5, 4502. | 5.8 | 148 |
| 21 | Twisted photon entanglement through turbulent air across Vienna. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14197-14201. | 3.3 | 147 |
| 22 | Quantum simulation of the wavefunction to probe frustrated Heisenberg spin systems. <i>Nature Physics</i> , 2011, 7, 399-405. | 6.5 | 145 |
| 23 | High-Dimensional Single-Photon Quantum Gates: Concepts and Experiments. <i>Physical Review Letters</i> , 2017, 119, 180510. | 2.9 | 142 |
| 24 | Happy centenary, photon. <i>Nature</i> , 2005, 433, 230-238. | 13.7 | 116 |
| 25 | Heralded generation of entangled photon pairs. <i>Nature Photonics</i> , 2010, 4, 553-556. | 15.6 | 114 |
| 26 | Cosmic Bell Test: Measurement Settings from Milky Way Stars. <i>Physical Review Letters</i> , 2017, 118, 060401. | 2.9 | 111 |
| 27 | Experimental Greenberger-Horne-Zeilinger entanglement beyond qubits. <i>Nature Photonics</i> , 2018, 12, 759-764. | 15.6 | 109 |
| 28 | Orbital angular momentum of photons and the entanglement of Laguerre-Gaussian modes. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20150442. | 1.6 | 104 |
| 29 | The message of the quantum. <i>Nature</i> , 2005, 438, 743-743. | 13.7 | 93 |
| 30 | Cosmic Bell Test Using Random Measurement Settings from High-Redshift Quasars. <i>Physical Review Letters</i> , 2018, 121, 080403. | 2.9 | 89 |
| 31 | Entanglement distribution over a 96-km-long submarine optical fiber. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 6684-6688. | 3.3 | 85 |
| 32 | Entanglement by Path Identity. <i>Physical Review Letters</i> , 2017, 118, 080401. | 2.9 | 81 |
| 33 | Gouy Phase Radial Mode Sorter for Light: Concepts and Experiments. <i>Physical Review Letters</i> , 2018, 120, 103601. | 2.9 | 74 |
| 34 | Feasibility of 300-km quantum key distribution with entangled states. <i>New Journal of Physics</i> , 2009, 11, 085002. | 1.2 | 72 |
| 35 | Entangled singularity patterns of photons in Ince-Gauss modes. <i>Physical Review A</i> , 2013, 87, . | 1.0 | 70 |
| 36 | Theory of quantum imaging with undetected photons. <i>Physical Review A</i> , 2015, 92, . | 1.0 | 70 |

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|----|---|------|-----------|
| 37 | Information Invariance and Quantum Probabilities. Foundations of Physics, 2009, 39, 677-689. | 0.6 | 62 |
| 38 | Quantum Experiments and Graphs: Multiparty States as Coherent Superpositions of Perfect Matchings. Physical Review Letters, 2017, 119, 240403. | 2.9 | 57 |
| 39 | Teleportation of entanglement over 143 km. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14202-14205. | 3.3 | 56 |
| 40 | Quantum circuit analog of the dynamical Casimir effect. Physical Review B, 2011, 84, . | 1.1 | 53 |
| 41 | Quantum orbital angular momentum of elliptically symmetric light. Physical Review A, 2013, 87, . | 1.0 | 53 |
| 42 | Generation of the complete four-dimensional Bell basis. Optica, 2017, 4, 1462. | 4.8 | 51 |
| 43 | Predicting research trends with semantic and neural networks with an application in quantum physics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1910-1916. | 3.3 | 48 |
| 44 | Computer-inspired quantum experiments. Nature Reviews Physics, 2020, 2, 649-661. | 11.9 | 48 |
| 45 | Experimental violation of a Bell inequality with two different degrees of freedom of entangled particle pairs. Physical Review A, 2009, 79, . | 1.0 | 46 |
| 46 | Passively stable distribution of polarisation entanglement over 192 km of deployed optical fibre. Npj Quantum Information, 2020, 6, . | 2.8 | 43 |
| 47 | Quantum technology: from research to application. Applied Physics B: Lasers and Optics, 2016, 122, 1. | 1.1 | 42 |
| 48 | How to create and detect N-dimensional entangled photons with an active phase hologram. Applied Physics Letters, 2007, 90, 261114. | 1.5 | 40 |
| 49 | Computer-Inspired Concept for High-Dimensional Multipartite Quantum Gates. Physical Review Letters, 2020, 125, 050501. | 2.9 | 37 |
| 50 | Cyclic transformation of orbital angular momentum modes. New Journal of Physics, 2016, 18, 043019. | 1.2 | 36 |
| 51 | Space QUEST mission proposal: experimentally testing decoherence due to gravity. New Journal of Physics, 2018, 20, 063016. | 1.2 | 36 |
| 52 | Heralded generation of multiphoton entanglement. Physical Review A, 2007, 75, . | 1.0 | 33 |
| 53 | Einstein-Podolsky-Rosen correlations from colliding Bose-Einstein condensates. Physical Review A, 2012, 86, . | 1.0 | 32 |
| 54 | Quantifying the momentum correlation between two light beams by detecting one. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1508-1511. | 3.3 | 31 |

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|----|--|------|-----------|
| 55 | Quantum experiments and graphs II: Quantum interference, computation, and state generation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4147-4155. | 3.3 | 30 |
| 56 | Arbitrary d -dimensional Pauli X gates of a flying qudit. Physical Review A, 2019, 99, . | 1.0 | 29 |
| 57 | Strategies for achieving high key rates in satellite-based QKD. Npj Quantum Information, 2021, 7, . | 2.8 | 29 |
| 58 | Quantum indistinguishability by path identity and with undetected photons. Reviews of Modern Physics, 2022, 94, . | 16.4 | 27 |
| 59 | Quantum optical rotatory dispersion. Science Advances, 2016, 2, e1601306. | 4.7 | 26 |
| 60 | Bose-Einstein condensate of metastable helium for quantum correlation experiments. Physical Review A, 2014, 90, . | 1.0 | 23 |
| 61 | Twin-photon correlations in single-photon interference. Physical Review A, 2017, 96, . | 1.0 | 22 |
| 62 | Nonclassicality of induced coherence without induced emission. Physical Review A, 2019, 100, . | 1.0 | 22 |
| 63 | Path identity as a source of high-dimensional entanglement. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26118-26122. | 3.3 | 22 |
| 64 | Quantum teleportation of physical qubits into logical code spaces. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 21 |
| 65 | Partial polarization by quantum distinguishability. Physical Review A, 2017, 95, . | 1.0 | 20 |
| 66 | Quantum experiments and graphs. III. High-dimensional and multiparticle entanglement. Physical Review A, 2019, 99, . | 1.0 | 20 |
| 67 | Resolution of Quantum Imaging with Undetected Photons. Quantum - the Open Journal for Quantum Science, 0, 6, 646. | 0.0 | 20 |
| 68 | Quantum Information and Randomness. European Review, 2010, 18, 469-480. | 0.4 | 18 |
| 69 | Towards photonic quantum simulation of ground states of frustrated Heisenberg spin systems. Scientific Reports, 2015, 4, 3583. | 1.6 | 12 |
| 70 | The interpretation of quantum mechanics: from disagreement to consensus?. Annalen Der Physik, 2013, 525, A51-A54. | 0.9 | 10 |
| 71 | Crossed-crystal scheme for femtosecond-pulsed entangled photon generation in periodically poled potassium titanyl phosphate. Physical Review A, 2014, 89, . | 1.0 | 8 |
| 72 | Characterizing mixed-state entanglement through single-photon interference. Physical Review A, 2021, 104, . | 1.0 | 7 |

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|----|--|-----|-----------|
| 73 | Quantum gate description for induced coherence without induced emission and its applications. Physical Review A, 2017, 96, . | 1.0 | 3 |
| 74 | THEORETICAL STUDIES ON DYNAMICAL CASIMIR EFFECT IN A SUPERCONDUCTING ARTIFICIAL ATOM. , 2010, , . | | 2 |
| 75 | Quantum key distribution at space scale. , 2015, , . | | 1 |
| 76 | Experimental photonic state engineering and quantum control of two optical qubits. , 2011, , . | | 0 |
| 77 | Introduction to the Proceedings of "Horizons of Quantum Physics" 2012. Foundations of Physics, 2014, 44, 449-451. | 0.6 | 0 |
| 78 | QUANTUM COMMUNICATION AND QUANTUM COMPUTATION WITH ENTANGLED PHOTONS. , 2006, , . | | 0 |