

Anton Zeilinger

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

11,107
citations

57631

44
h-index

79541

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

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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