

Rainer Kaltenbaek

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

2,923
citations

279798

23
h-index

315739

38
g-index

49
all docs

49
docs citations

49
times ranked

2413
citing authors

#	ARTICLE	IF	CITATIONS
1	Large Quantum Superpositions and Interference of Massive Nanometer-Sized Objects. <i>Physical Review Letters</i> , 2011, 107, 020405.	7.8	373
2	An experimental test of non-local realism. <i>Nature</i> , 2007, 446, 871-875.	27.8	305
3	High-speed linear optics quantum computing using active feed-forward. <i>Nature</i> , 2007, 445, 65-69.	27.8	300
4	Cavity cooling of an optically levitated submicron particle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14180-14185.	7.1	264
5	Quantum teleportation across the Danube. <i>Nature</i> , 2004, 430, 849-849.	27.8	261
6	Long-Distance Free-Space Distribution of Quantum Entanglement. <i>Science</i> , 2003, 301, 621-623.	12.6	177
7	Experimental Interference of Independent Photons. <i>Physical Review Letters</i> , 2006, 96, 240502.	7.8	171
8	Experimental violation of Svetlichny's inequality. <i>New Journal of Physics</i> , 2009, 11, 073051.	2.9	109
9	Quantum-inspired interferometry with chirped laser pulses. <i>Nature Physics</i> , 2008, 4, 864-868.	16.7	82
10	High-fidelity entanglement swapping with fully independent sources. <i>Physical Review A</i> , 2009, 79, .	2.5	77
11	Macroscopic Quantum Resonators (MAQRO): 2015 update. <i>EPJ Quantum Technology</i> , 2016, 3, .	6.3	77
12	Macroscopic quantum resonators (MAQRO). <i>Experimental Astronomy</i> , 2012, 34, 123-164.	3.7	74
13	Experimental Bound Entanglement in a Four-Photon State. <i>Physical Review Letters</i> , 2010, 105, 130501.	7.8	67
14	Optical one-way quantum computing with a simulated valence-bond solid. <i>Nature Physics</i> , 2010, 6, 850-854.	16.7	57
15	Quantum-optical coherence tomography with classical light. <i>Optics Express</i> , 2009, 17, 3818.	3.4	51
16	Derivation and experimental test of fidelity benchmarks for remote preparation of arbitrary qubit states. <i>Physical Review A</i> , 2010, 81, .	2.5	43
17	Classical Analogues of Two-Photon Quantum Interference. <i>Physical Review Letters</i> , 2009, 102, 243601.	7.8	40
18	Quantum physics in space. <i>Physics Reports</i> , 2022, 951, 1-70.	25.6	38

#	ARTICLE	IF	CITATIONS
19	Space QUEST mission proposal: experimentally testing decoherence due to gravity. <i>New Journal of Physics</i> , 2018, 20, 063016.	2.9	36
20	Dispersion-cancelled biological imaging with quantum-inspired interferometry. <i>Scientific Reports</i> , 2013, 3, 1582.	3.3	32
21	Cluster-State Quantum Computing Enhanced by High-Fidelity Generalized Measurements. <i>Physical Review Letters</i> , 2009, 103, 240504.	7.8	31
22	Entanglement-Enhanced Classical Communication Over a Noisy Classical Channel. <i>Physical Review Letters</i> , 2011, 106, 110505.	7.8	28
23	Testing the foundation of quantum physics in space via Interferometric and non-interferometric experiments with mesoscopic nanoparticles. <i>Communications Physics</i> , 2021, 4, .	5.3	28
24	Optimal linear optical implementation of a single-qubit damping channel. <i>New Journal of Physics</i> , 2012, 14, 033016.	2.9	26
25	Quantum technologies in space. <i>Experimental Astronomy</i> , 2021, 51, 1677-1694.	3.7	23
26	Proof-of-concept experiments for quantum physics in space. , 2004, 5161, 252.		18
27	Linear-optics realization of channels for single-photon multimode qudits. <i>Physical Review A</i> , 2011, 84, .	2.5	17
28	Thermal performance of a radiatively cooled system for quantum optomechanical experiments in space. <i>Applied Thermal Engineering</i> , 2016, 107, 689-699.	6.0	15
29	Talbot-Lau effect beyond the point-particle approximation. <i>Physical Review A</i> , 2019, 100, .	2.5	15
30	Minimum-error discrimination of entangled quantum states. <i>Physical Review A</i> , 2010, 82, .	2.5	14
31	Experimental bound entanglement?. <i>Nature Physics</i> , 2010, 6, 827-827.	16.7	13
32	How cold can you get in space? Quantum physics at cryogenic temperatures in space. <i>New Journal of Physics</i> , 2014, 16, 013058.	2.9	13
33	Quantum communications in space. , 2004, 5161, 240.		7
34	Chirped-pulse interferometry with finite frequency correlations. , 2009, , .		7
35	Testing quantum physics in space using optically trapped nanospheres. <i>Proceedings of SPIE</i> , 2013, , .	0.8	5
36	Single-shot Stern-Gerlach magnetic gradiometer with an expanding cloud of cold cesium atoms. <i>Physical Review A</i> , 2021, 103, .	2.5	5

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37	Optical implementation of a unitarily correctable code. Physical Review A, 2009, 80, .	2.5	4
38	Creating multiphoton-polarization bound entangled states. Physical Review A, 2011, 83, .	2.5	3
39	Macroscopic quantum resonators in space. , 2011, , .		3
40	Feasibility considerations for free-fall tests of gravitational decoherence. AVS Quantum Science, 2022, 4, 015604.	4.9	2
41	Measurement and active compensation of polarization drifts in a fiber quantum channel used for teleportation. , 2003, , .		1
42	Entanglement-enhanced classical communication over a noisy classical channel. , 2011, , .		1
43	Optomechanical Schrödinger cats “a case for space. , 2013, , 123-132.		1
44	Linear-Optics Realization of Channels for Single-Photon Multimode Qudits. , 2011, , .		1
45	Implementation of Quantum Algorithms using Optical Cluster State. , 2007, , .		0
46	Chirped-pulse interferometry for dispersion-cancelled OCT. , 2011, , .		0
47	Photon triplets and bound entanglement. , 2011, , .		0