Rainer Kaltenbaek

List of Publications by Year
in descending order

47 papers	2,923 citations	318942 23 h-index	355658 38 g-index
49 all docs	49 docs citations	49 times ranked	2777 citing authors

#	Article	IF	Citations
1	Quantum physics in space. Physics Reports, 2022, 951, 1-70.	10.3	38
2	Feasibility considerations for free-fall tests of gravitational decoherence. AVS Quantum Science, 2022, 4, 015604.	1.8	2
3	Single-shot Stern-Gerlach magnetic gradiometer with an expanding cloud of cold cesium atoms. Physical Review A, 2021, 103, .	1.0	5
4	Quantum technologies in space. Experimental Astronomy, 2021, 51, 1677-1694.	1.6	23
5	Testing the foundation of quantum physics in space via Interferometric and non-interferometric experimentsÂwith mesoscopic nanoparticles. Communications Physics, 2021, 4, .	2.0	28
6	Talbot-Lau effect beyond the point-particle approximation. Physical Review A, 2019, 100, .	1.0	15
7	Space QUEST mission proposal: experimentally testing decoherence due to gravity. New Journal of Physics, 2018, 20, 063016.	1.2	36
8	Macroscopic Quantum Resonators (MAQRO): 2015 update. EPJ Quantum Technology, 2016, 3, .	2.9	77
9	Thermal performance of a radiatively cooled system for quantum optomechanical experiments in space. Applied Thermal Engineering, 2016, 107, 689-699.	3.0	15
10	How cold can you get in space? Quantum physics at cryogenic temperatures in space. New Journal of Physics, 2014, 16, 013058.	1.2	13
11	Testing quantum physics in space using optically trapped nanospheres. Proceedings of SPIE, 2013, , .	0.8	5
12	Cavity cooling of an optically levitated submicron particle. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14180-14185.	3.3	264
13	Dispersion-cancelled biological imaging with quantum-inspired interferometry. Scientific Reports, 2013, 3, 1582.	1.6	32
14	Optomechanical SchrÃ¶dinger cats â€“ a case for space. , 2013, , 123-132.		1
15	Optimal linear optical implementation of a single-qubit damping channel. New Journal of Physics, 2012, 14, 033016.	1.2	26
16	Macroscopic quantum resonators (MAQRO). Experimental Astronomy, 2012, 34, 123-164.	1.6	74
17	Large Quantum Superpositions and Interference of Massive Nanometer-Sized Objects. Physical Review Letters, 2011, 107, 020405.	2.9	373
18	Entanglement-Enhanced Classical Communication Over a Noisy Classical Channel. Physical Review Letters, 2011, 106, 110505.	2.9	28

#	Article	IF	Citations
19	Linear-optics realization of channels for single-photon multimode qudits. Physical Review A, 2011, 84, .	1.0	17
20	Creating multiphoton-polarization bound entangled states. Physical Review A, 2011, 83, .	1.0	3
21	Chirped-pulse interferometry for dispersion-cancelled OCT. , 2011, , .		0
22	Entanglement-enhanced classical communication over a noisy classical channel. , 2011, , .		1
23	Macroscopic quantum resonators in space. , 2011, , .		3
24	Photon triplets and bound entanglement. , 2011, , .		0
25	Linear-Optics Realization of Channels for Single-Photon Multimode Qudits. , 2011, , .		1
26	Minimum-error discrimination of entangled quantum states. Physical Review A, 2010, 82, .	1.0	14
27	Optical one-way quantum computing with a simulated valence-bond solid. Nature Physics, 2010, 6, 850-854.	6.5	57
28	Experimental bound entanglement?. Nature Physics, 2010, 6, 827-827.	6.5	13
29	Experimental Bound Entanglement in a Four-Photon State. Physical Review Letters, 2010, 105, 130501.	2.9	67
30	Derivation and experimental test of fidelity benchmarks for remote preparation of arbitrary qubit states. Physical Review A, 2010, 81, .	1.0	43
31	High-fidelity entanglement swapping with fully independent sources. Physical Review A, 2009, 79, .	1.0	77
32	Classical Analogues of Two-Photon Quantum Interference. Physical Review Letters, 2009, 102, 243601.	2.9	40
33	Cluster-State Quantum Computing Enhanced by High-Fidelity Generalized Measurements. Physical Review Letters, 2009, 103, 240504.	2.9	31
34	Experimental violation of Svetlichny's inequality. New Journal of Physics, 2009, 11, 073051.	1.2	109
35	Quantum-optical coherence tomography with classical light. Optics Express, 2009, 17, 3818.	1.7	51
36	Optical implementation of a unitarily correctable code. Physical Review A, 2009, 80, .	1.0	4

#	Article	IF	Citations
37	Chirped-pulse interferometry with finite frequency correlations. , 2009, , .		7
38	Quantum-inspired interferometry with chirped laser pulses. Nature Physics, 2008, 4, 864-868.	6.5	82
39	Implementation of Quantum Algorithms using Optical Cluster State. , 2007, , .		0
40	High-speed linear optics quantum computing using active feed-forward. Nature, 2007, 445, 65-69.	13.7	300
41	An experimental test of non-local realism. Nature, 2007, 446, 871-875.	13.7	305
42	Experimental Interference of Independent Photons. Physical Review Letters, 2006, 96, 240502.	2.9	171
43	Quantum communications in space. , 2004, 5161, 240.		7
44	Proof-of-concept experiments for quantum physics in space. , 2004, 5161, 252.		18
45	Quantum teleportation across the Danube. Nature, 2004, 430, 849-849.	13.7	261
46	Measurement and active compensation of polarization drifts in a fiber quantum channel used for teleportation. , 2003, , .		1
47	Long-Distance Free-Space Distribution of Quantum Entanglement. Science, 2003, 301, 621-623.	6.0	177