Rupert Ursin

List of Publications by Year
in descending order

97 papers	10,257 citations	61984 43 h-index	66911 78 g-index
98 all docs	98 docs citations	98 times ranked	5658 citing authors

#	Article	IF	Citations
1	Significant-Loophole-Free Test of Bellâ€™s Theorem with Entangled Photons. Physical Review Letters, 2015, 115, 250401.	7.8	932
2	Entanglement-based quantum communication over 144â€‰km. Nature Physics, 2007, 3, 481-486.	16.7	866
3	Experimental Demonstration of Free-Space Decoy-State Quantum Key Distribution over 144Âkm. Physical Review Letters, 2007, 98, 010504.	7.8	589
4	Satellite-Relayed Intercontinental Quantum Network. Physical Review Letters, 2018, 120, 030501.	7.8	499
5	Quantum teleportation over 143 kilometres using active feed-forward. Nature, 2012, 489, 269-273.	27.8	490
6	De Broglie wavelength of a non-local four-photon state. Nature, 2004, 429, 158-161.	27.8	463
7	Bell violation using entangled photons without the fair-sampling assumption. Nature, 2013, 497, 227-230.	27.8	448
8	Experimental entanglement purification of arbitrary unknown states. Nature, 2003, 423, 417-422.	27.8	423
9	Communication with spatially modulated light through turbulent air across Vienna. New Journal of Physics, 2014, 16, 113028.	2.9	405
10	Twisted light transmission over 143 km. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13648-13653.	7.1	276
11	Quantum teleportation across the Danube. Nature, 2004, 430, 849-849.	27.8	261
12	Linear Optics Controlled-Phase Gate Made Simple. Physical Review Letters, 2005, 95, 210505.	7.8	244
13	Experimental Analysis of a Four-Qubit Photon Cluster State. Physical Review Letters, 2005, 95, 210502.	7.8	238
14	An entanglement-based wavelength-multiplexed quantum communication network. Nature, 2018, 564, 225-228.	27.8	224
15	Loophole-free Einsteinâ€“Podolskyâ€“Rosen experiment via quantum steering. New Journal of Physics, 2012, 14, 053030.	2.9	206
16	Violation of local realism with freedom of choice. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19708-19713.	7.1	196
17	Practical quantum key distribution with polarization entangled photons. Optics Express, 2004, 12, 3865.	3.4	178
18	Long-Distance Free-Space Distribution of Quantum Entanglement. Science, 2003, 301, 621-623.	12.6	177

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19	Experimental verification of the feasibility of a quantum channel between space and Earth. New Journal of Physics, 2008, 10, 033038.	2.9	177
20	Experimental delayed-choice entanglement swapping. Nature Physics, 2012, 8, 479-484.	16.7	171
21	High-fidelity transmission of entanglement over a high-loss free-space channel. Nature Physics, 2009, 5, 389-392.	16.7	165
22	A trusted nodeâ€“free eight-user metropolitan quantum communication network. Science Advances, 2020, 6, .	10.3	148
23	Distribution of high-dimensional entanglement via an intra-city free-space link. Nature Communications, 2017, 8, 15971.	12.8	123
24	Overcoming Noise in Entanglement Distribution. Physical Review X, 2019, 9, .	8.9	114
25	Experimental Quantum Coin Tossing. Physical Review Letters, 2005, 94, 040501.	7.8	113
26	Distributing entanglement and single photons through an intra-city, free-space quantum channel. Optics Express, 2005, 13, 202.	3.4	112
27	Cosmic Bell Test: Measurement Settings from MilkyÂWay Stars. Physical Review Letters, 2017, 118, 060401.	7.8	111
28	Cosmic Bell Test Using Random Measurement Settings from High-Redshift Quasars. Physical Review Letters, 2018, 121, 080403.	7.8	89
29	Entanglement distribution over a 96-km-long submarine optical fiber. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6684-6688.	7.1	85
30	A high-brightness source of polarization-entangled photons optimized for applications in free space. Optics Express, 2012, 20, 9640.	3.4	79
31	Space-quest, experiments with quantum entanglement in space. Europhysics News, 2009, 40, 26-29.	0.3	77
32	Macroscopic Quantum Resonators (MAQRO): 2015 update. EPJ Quantum Technology, 2016, 3, .	6.3	77
33	Impact of Turbulence in Long Range Quantum and Classical Communications. Physical Review Letters, 2012, 109, 200502.	7.8	75
34	Quantum erasure with causally disconnected choice. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1221-1226.	7.1	74
35	Feasibility of 300â€‰km quantum key distribution with entangled states. New Journal of Physics, 2009, 11, 085002.	2.9	72
36	Quantum communications at ESA: Towards a space experiment on the ISS. Acta Astronautica, 2008, 63, 165-178.	3.2	63

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37	Nanobob: a CubeSat mission concept for quantum communication experiments in an uplink configuration. EPJ Quantum Technology, 2018, 5, .	6.3	58
38	Highly efficient heralding of entangled single photons. Optics Express, 2013, 21, 6707.	3.4	56
39	Teleportation of entanglement over 143 km. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14202-14205.	7.1	56
40	Quantum optics experiments using the International Space Station: a proposal. New Journal of Physics, 2013, 15, 043008.	2.9	55
41	Efficient heralding of polarization-entangled photons from type-0 and type-II spontaneous parametric downconversion in periodically poled KTiOPO_4. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 2068.	2.1	54
42	Quantum estimation of the Schwarzschild spacetime parameters of the Earth. Physical Review D, 2014, 90, .	4.7	53
43	Hong-Ou-Mandel interferometry on a biphoton beat note. Npj Quantum Information, 2019, 5, .	6.7	50
44	Experimental Single-Copy Entanglement Distillation. Physical Review Letters, 2021, 127, 040506.	7.8	44
45	Passively stable distribution of polarisation entanglement over 192 km of deployed optical fibre. Npj Quantum Information, 2020, 6, .	6.7	43
46	Entanglement-enhanced optical gyroscope. New Journal of Physics, 2019, 21, 053010.	2.9	39
47	Characterization of a Commercially Available Large Area, High Detection Efficiency Single-Photon Avalanche Diode. Journal of Lightwave Technology, 2013, 31, 3591-3596.	4.6	38
48	Bell-inequality violation with entangled photons, free of the coincidence-time loophole. Physical Review A, 2014, 90, .	2.5	36
49	Space QUEST mission proposal: experimentally testing decoherence due to gravity. New Journal of Physics, 2018, 20, 063016.	2.9	36
50	Polarization Entanglement by Time-Reversed Hong-Ou-Mandel Interference. Physical Review Letters, 2018, 121, 200502.	7.8	35
51	Comparative study of afterpulsing behavior and models in single photon counting avalanche photo diode detectors. Scientific Reports, 2018, 8, 5076.	3.3	34
52	Quantum Communication with Photons. , 2016, , 455-482.		32
53	Q3Sat: quantum communications uplink to a 3U CubeSatâ€"feasibility & design. EPJ Quantum Technology, 2018, 5, .	6.3	32
54	Model for optimizing quantum key distribution with continuous-wave pumped entangled-photon sources. Physical Review A, 2021, 104, .	2.5	32

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55	Quantum teleportation and entanglement swapping with linear optics logic gates. New Journal of Physics, 2009, 11, 033008.	2.9	31
56	A Simple and Robust Method for Estimating Afterpulsing in Single Photon Detectors. Journal of Lightwave Technology, 2015, 33, 3098-3107.	4.6	31
57	Experimental test of photonic entanglement in accelerated reference frames. Nature Communications, 2017, 8, 15304.	12.8	29
58	Strategies for achieving high key rates in satellite-based QKD. Npj Quantum Information, 2021, 7, .	6.7	29
59	Verification of high-dimensional entanglement generated in quantum interference. Physical Review A, 2020, 101, .	2.5	24
60	Quantum technologies in space. Experimental Astronomy, 2021, 51, 1677-1694.	3.7	23
61	A NOVEL PROTOCOL-AUTHENTICATION ALGORITHM RULING OUT A MAN-IN-THE MIDDLE ATTACK IN QUANTUM CRYPTOGRAPHY. International Journal of Quantum Information, 2005, 03, 225-231.	1.1	22
62	An On-Demand Optical Quantum Random Number Generator with In-Future Action and Ultra-Fast Response. Scientific Reports, 2015, 5, 10214.	3.3	22
63	Experimental wavelength-multiplexed entanglement-based quantum cryptography. Quantum Science and Technology, 0, , .	5.8	21
64	Experimental quantum teleportation over a high-loss free-space channel. Optics Express, 2012, 20, 23126.	3.4	18
65	On the equivalence of the Clauserâ€“Horne and Eberhard inequality based tests. Physica Scripta, 2014, T163, 014019.	2.5	18
66	Temporal distinguishability in Hong-Ou-Mandel interference for harnessing high-dimensional frequency entanglement. Npj Quantum Information, 2021, 7, .	6.7	18
67	Space-to-ground quantum communication using an optical ground station: a feasibility study. , 2004, 5551, 113.		16
68	Attacks on quantum key distribution protocols that employ non-ITS authentication. Quantum Information Processing, 2016, 15, 327-362.	2.2	16
69	Experimentally optimizing QKD rates via nonlocal dispersion compensation. Quantum Science and Technology, 2021, 6, 025017.	5.8	13
70	Fast optical source for quantum key distribution based on semiconductor optical amplifiers. Optics Express, 2011, 19, 3825.	3.4	11
71	Experimental implementation of secure anonymous protocols on an eight-user quantum key distribution network. Npj Quantum Information, 2022, 8, .	6.7	11
72	Remotely Establishing Polarization Entanglement Over Noisy Polarization Channels. Physical Review Applied, 2022, 17, .	3.8	10

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73	Performing high-quality multi-photon experiments with parametric down-conversion. Journal of Physics B: Atomic, Molecular and Optical Physics, 2009, 42, 114008.	1.5	8
74	Sharing quantum secrets. Nature, 2013, 501, 37-38.	27.8	8
75	Crossed-crystal scheme for femtosecond-pulsed entangled photon generation in periodically poled potassium titanyl phosphate. Physical Review A, 2014, 89, .	2.5	8
76	RESPONSE TO "VULNERABILITY OF 'A NOVEL PROTOCOL-AUTHENTICATION ALGORITHM RULING OUT A MAN-IN-THE-MIDDLE ATTACK IN QUANTUM CRYPTOGRAPHY'". International Journal of Quantum Information, 2009, 07, 1401-1407.	1.1	7
77	Experimental Space-Division Multiplexed Polarization-Entanglement Distribution through 12 Paths of a Multicore Fiber. PRX Quantum, 2021, 2, .	9.2	7
78	Certifying position-momentum entanglement at telecommunication wavelengths. Physica Scripta, 2022, 97, 015101.	2.5	6
79	Scalable Authentication and Optimal Flooding in a Quantum Network. PRX Quantum, 2022, 3, .	9.2	6
80	Development of a space-proof polarization-entangled photon source. , 2016, , .		5
81	A low-noise single-photon detector for long-distance free-space quantum communication. EPJ Quantum Technology, 2021, 8, .	6.3	4
82	Space-QUEST: quantum physics and quantum communication in space. , 2009, , .		3
83	Quantum communications uplink to a 3U CubeSat. , 2017, , .		3
84	A trusted-node-free eight-user metropolitan quantum communication network. , 2020, , .		3
85	Applications of quantum communication protocols in real world scenarios toward space. Elektrotechnik Und Informationstechnik, 2007, 124, 149-153.	1.1	1
86	143 km free-space quantum teleportation. , 2014, , .		1
87	An Entanglement-Based Wavelength Multiplexed Quantum Communication Network. , 2019, , .		1
88	EXPERIMENTAL ANALYSIS OF A SIMPLE LINEAR OPTICS PHASE GATE. International Journal of Quantum Information, 2007, 05, 235-240.	1.1	0
89	Active and passive optical sources for QKD. , 2011, , .		0
90	Quantum key distribution. , 0, , 305-327.		0

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91	Experimentally optimizing QKD rates via nonlocal dispersion compensation. , 2021, , .		0
92	Multiplexed entanglement-based quantum cryptography: concept and implementations. , 2021, , .		0
93	Protocols Beyond Just QKD on an Eight-User Quantum Network. , 2021, , .		0
94	A significant-loophole-free test of Bell's theorem with entangled photons. , 2017, , .		0
95	Hong-Ou-Mandel Interferometry on a biphoton beat note. , 2019, , .		0
96	A No-History, Low Latency Photonic Quantum Random Bit Generator for Use in a Loophole Free Bell Tests and General Applications. Quantum Science and Technology, 2020, , 65-83.	2.6	0
97	Experimental high-rate multiplexed quantum communication. , 2021, , .		0