

Wolfgang Tittel

List of Publications by Year in descending order

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125
papers

17,727
citations

66250

44
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25983

112
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125
all docs

125
docs citations

125
times ranked

9066
citing authors

#	ARTICLE	IF	CITATIONS
1	Deployed measurement-device independent quantum key distribution and Bell-state measurements coexisting with standard internet data and networking equipment. Communications Physics, 2022, 5, .	2.0	9
2	Compact energyâ€time entanglement source using cascaded nonlinear interactions. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 1380.	0.9	5
3	Optical coherence and energy-level properties of a Tm^{3+} -doped $LiNbO_3$ waveguide at subkelvin temperatures. Physical Review B, 2021, 103, .	1.1	3
4	Measurement of the thulium ion spin Hamiltonian in an yttrium gallium garnet host crystal. Physical Review B, 2021, 104, .	1.1	4
5	Long-Lived Solid-State Optical Memory for High-Rate Quantum Repeaters. Physical Review Letters, 2021, 127, 220502.	2.9	29
6	Improved light-matter interaction for storage of quantum states of light in a thulium-doped crystal cavity. Physical Review A, 2020, 101, .	1.0	29
7	Entanglement and nonlocality between disparate solid-state quantum memories mediated by photons. Physical Review Research, 2020, 2, .	1.3	18
8	Persistent atomic frequency comb based on Zeeman sub-levels of an erbium-doped crystal waveguide. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 352.	0.9	10
9	Measurement-device-independent quantum key distribution coexisting with classical communication. Quantum Science and Technology, 2019, 4, 045002.	2.6	22
10	Storage and Reemission of Heralded Telecommunication-Wavelength Photons Using a Crystal Waveguide. Physical Review Applied, 2019, 11, .	1.5	40
11	Practical quantum randomâ€number generation based on sampling vacuum fluctuations. Quantum Engineering, 2019, 1, e8.	1.2	33
12	Quantum key distribution breaking limits. Nature Photonics, 2019, 13, 310-311.	15.6	7
13	Carrier Aggregated Radio-Over-Fiber Downlink for Achieving 2Gbps for 5G Applications. IEEE Access, 2019, 7, 3136-3142.	2.6	13
14	Digitally Linearized Radio-Over Fiber Transmitter Architecture for Cloud Radio Access Networkâ€™s Downlink. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 3564-3574.	2.9	40
15	Modification of relaxation dynamics in Tb^{3+} -doped $LiNbO_3$ nanopowders. Physical Review B, 2018, 98, .	1.1	3
16	Properties of a Rare-Earth-Ion-Doped Waveguide at Sub-Kelvin Temperatures for Quantum Signal Processing. Physical Review Letters, 2017, 118, 100504.	2.9	31
17	Effects of mechanical processing and annealing on optical coherence properties of Er^{3+} : $LiNbO_3$ powders. Journal of Luminescence, 2017, 191, 2-12.	1.5	10
18	Entanglement between more than two hundred macroscopic atomic ensembles in a solid. Nature Communications, 2017, 8, 906.	5.8	21

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19	Heralded Single Photons Based on Spectral Multiplexing and Feed-Forward Control. Physical Review Letters, 2017, 119, 083601.	2.9	62
20	A cost-effective measurement-device-independent quantum key distribution system for quantum networks. Quantum Science and Technology, 2017, 2, 04LT01.	2.6	25
21	Quantenteleportation im städtischen Glasfasernetzwerk. Physik in Unserer Zeit, 2017, 48, 8-9.	0.0	0
22	High-Q Diamond Microdisks for Coupling to SiV Quantum Emitters. , 2017, , .		0
23	Proposal and proof-of-principle demonstration of non-destructive detection of photonic qubits using a Tm:LiNbO3 waveguide. Nature Communications, 2016, 7, 13454.	5.8	20
24	A multiplexed light-matter interface for fibre-based quantum networks. Nature Communications, 2016, 7, 11202.	5.8	65
25	Practical quantum repeaters with parametric down-conversion sources. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	41
26	Efficiency of an enhanced linear optical Bell-state measurement scheme with realistic imperfections. Physical Review A, 2016, 94, .	1.0	14
27	Optical decoherence and spectral diffusion in an erbium-doped silica glass fiber featuring long-lived spin sublevels. Physical Review B, 2016, 94, .	1.1	14
28	Quantum teleportation across a metropolitan fibre network. Nature Photonics, 2016, 10, 676-680.	15.6	184
29	Modification of phonon processes in nanostructured rare-earth-ion-doped crystals. Physical Review A, 2016, 94, .	1.0	10
30	Quadratic Zeeman effect and spin-lattice relaxation of Tm^{3+} in $Y_3Al_5O_{12}$:YAG at high magnetic fields. Physical Review B, 2016, 94, .		
31	Effects of fabrication methods on spin relaxation and crystallite quality in Tm-doped $Y_3Al_5O_{12}$ powders studied using spectral hole burning. Science and Technology of Advanced Materials, 2016, 17, 63-70.	2.8	12
32	Entanglement swapping with quantum-memory-compatible photons. Physical Review A, 2015, 92, .	1.0	8
33	Rate-loss analysis of an efficient quantum repeater architecture. Physical Review A, 2015, 92, .	1.0	91
34	Efficient and long-lived Zeeman-sublevel atomic population storage in an erbium-doped glass fiber. Physical Review B, 2015, 92, .	1.1	19
35	Telecom-Wavelength Atomic Quantum Memory in Optical Fiber for Heralded Polarization Qubits. Physical Review Letters, 2015, 115, 140501.	2.9	46
36	Quantum light. Europhysics News, 2015, 46, 36-40.	0.1	1

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37	Quantum storage of entangled telecom-wavelength photons in an erbium-doped optical fibre. Nature Photonics, 2015, 9, 83-87.	15.6	190
38	Teleportation for two. Nature, 2015, 518, 491-492.	13.7	3
39	Measurement-device-independent quantum key distribution: from idea towards application. Journal of Modern Optics, 2015, 62, 1141-1150.	0.6	45
40	Device-dependent and device-independent quantum key distribution without a shared reference frame. New Journal of Physics, 2014, 16, 043002.	1.2	10
41	Modeling a measurement-device-independent quantum key distribution system. Optics Express, 2014, 22, 12716.	1.7	27
42	Efficient Bell state analyzer for time-bin qubits with fast-recovery WSi superconducting single photon detectors. Optics Express, 2014, 22, 24497.	1.7	21
43	Optical decoherence studies of Tm^{3+} in $Y_3Ga_5O_{12}$ materials for spectrally multiplexed quantum memories. Physical Review B, 2014, 89, 040401.		
44	Tm^{3+} in $Y_3Ga_5O_{12}$ Materials for Spectrally Multiplexed Quantum Memories. Physical Review Letters, 2014, 113, 160501.	2.9	25
45	Spectral Multiplexing for Scalable Quantum Photonics using an Atomic Frequency Comb Quantum Memory and Feed-Forward Control. Physical Review Letters, 2014, 113, 053603.	2.9	214
46	Measuring and analyzing excitation-induced decoherence in rare-earth-doped optical materials. Laser Physics, 2014, 24, 106002.	0.6	29
47	An integrated processor for photonic quantum states using a broadband light-matter interface. New Journal of Physics, 2014, 16, 065019.	1.2	50
48	Performing private database queries in a real-world environment using a quantum protocol. Scientific Reports, 2014, 4, 5233.	1.6	51
49	Long range quantum key distribution using frequency multiplexing in broadband solid state memories. , 2014, , .		0
50	Spectrally multiplexed solid-state memories for quantum repeaters. , 2014, , .		0
51	Two-photon interference of weak coherent laser pulses recalled from separate solid-state quantum memories. Nature Communications, 2013, 4, 2386.	5.8	23
52	Prospective applications of optical quantum memories. Journal of Modern Optics, 2013, 60, 1519-1537.	0.6	218
53	Practical long-distance quantum communication using concatenated entanglement swapping. Physical Review A, 2013, 88, .	1.0	12
54	Frequency multiplexed quantum memories with read-out on demand for quantum repeaters. , 2013, , .		0

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55	Real-World Two-Photon Interference and Proof-of-Principle Quantum Key Distribution Immune to Detector Attacks. <i>Physical Review Letters</i> , 2013, 111, 130501.	2.9	282
56	Flexible source of nondegenerate entangled photons based on a two-crystal Sagnac interferometer. <i>Physical Review A</i> , 2013, 88, .	1.0	18
57	Real-world two-photon interference and proof-of-principle QKD immune to detector attacks. , 2013, , .		1
58	Conditional Detection of Pure Quantum States of Light after Storage in a Tm-Doped Waveguide. <i>Physical Review Letters</i> , 2012, 108, 083602.	2.9	41
59	Controllable-dipole quantum memory. <i>Physical Review A</i> , 2012, 86, .	1.0	13
60	Proposal for Inverting the Quantum Cloning of Photons. <i>Physical Review Letters</i> , 2012, 108, 120404.	2.9	13
61	Experimental Bound on the Maximum Predictive Power of Physical Theories. <i>Physical Review Letters</i> , 2012, 109, 020402.	2.9	18
62	Optical quantum memory with generalized time-reversible atomâ€“light interaction. <i>New Journal of Physics</i> , 2011, 13, 063035.	1.2	24
63	Experimental loss-tolerant quantum coin flipping. <i>Nature Communications</i> , 2011, 2, 561.	5.8	32
64	Long-distance practical quantum key distribution by entanglement swapping. <i>Optics Express</i> , 2011, 19, 3004.	1.7	41
65	Time-cost analysis of a quantum key distribution system clocked at 100 MHz. <i>Optics Express</i> , 2011, 19, 17729.	1.7	4
66	Broadband waveguide quantum memory for entangled photons. <i>Nature</i> , 2011, 469, 512-515.	13.7	481
67	VerschrÃ¤nkte Photonen auf Eis gelegt. <i>Physik in Unserer Zeit</i> , 2011, 42, 113-114.	0.0	0
68	Broadband waveguide quantum memory for entangled photons. , 2011, , .		0
69	Broadband Waveguide Quantum Memory for Entangled Photons. , 2011, , .		1
70	Photonâ€“echo quantum memory in solid state systems. <i>Laser and Photonics Reviews</i> , 2010, 4, 244-267.	4.4	351
71	Temporal compression of quantum-information-carrying photons using a photon-echo quantum memory approach. <i>Physical Review A</i> , 2010, 82, .	1.0	18
72	Spectroscopic investigations of a waveguide for photon-echo quantum memory. <i>Journal of Luminescence</i> , 2010, 130, 1586-1593.	1.5	48

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73	Impossibility of faithfully storing single photons with the three-pulse photon echo. Physical Review A, 2010, 81, .	1.0	30
74	Testing nonlocality over 12.4 km of underground fiber with universal time-bin qubit analyzers. Physical Review A, 2010, 81, .	1.0	15
75	Microstructured fiber source of photon pairs at widely separated wavelengths. Optics Letters, 2010, 35, 499.	1.7	28
76	Towards high-rate quantum key distribution using quantum frames. , 2010, , .		0
77	Proof-of-concept of real-world quantum key distribution with quantum frames. New Journal of Physics, 2009, 11, 095001.	1.2	54
78	Optical quantum memory. Nature Photonics, 2009, 3, 706-714.	15.6	1,107
79	Quantum states prepared by realistic entanglement swapping. Physical Review A, 2009, 80, .	1.0	23
80	Space-quest, experiments with quantum entanglement in space. Europhysics News, 2009, 40, 26-29.	0.1	77
81	Photon echo quantum memory and state transformation. Proceedings of SPIE, 2008, , .	0.8	1
82	$\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> \langle mml:mrow> \langle mml:msup> \langle mml:mrow> \langle mml:mtext> Tm \langle /mml:mtext> \langle /mml:mrow> \langle mml:mrow> \langle mml:mn> 13 \langle /mml:mn> \langle /mml:mrow> \langle /mml:math \rangle$ for a quantum light storage application. Physical Review B, 2008, 77, .	1.0	13
83	Fast and simple characterization of a photon pair source. Optics Express, 2008, 16, 17060.	1.7	19
84	Fidelity of an Optical Memory Based on Stimulated Photon Echoes. Physical Review Letters, 2007, 98, 113601.	2.9	80
85	Controlled Stark shifts in Er ³⁺ -doped crystalline and amorphous waveguides for quantum state storage. Optics Communications, 2006, 266, 716-719.	1.0	34
86	Investigations of optical coherence properties in an erbium-doped silicate fiber for quantum state storage. Optics Communications, 2006, 266, 720-726.	1.0	37
87	Quantum memory for nonstationary light fields based on controlled reversible inhomogeneous broadening. Physical Review A, 2006, 73, .	1.0	218
88	A photonic quantum information interface. Nature, 2005, 437, 116-120.	18.7	350
89	Quantum-noise-limited interferometric measurement of atomic noise: Towards spin squeezing on the Cs clock transition. Physical Review A, 2005, 71, .	1.0	60
90	Quantum Information. Optics and Photonics News, 2005, 16, 40.	0.4	25

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91	Long-distance entanglement swapping with photons from separated sources. Physical Review A, 2005, 71, .	1.0	140
92	Tailoring photonic entanglement in high-dimensional Hilbert spaces. Physical Review A, 2004, 69, .	1.0	87
93	Two independent photon pairs versus four-photon entangled states in parametric down conversion. Journal of Modern Optics, 2004, 51, 1637-1649.	0.6	75
94	Experimental realization of a quantum relay over a significant distance. Journal of Modern Optics, 2004, 51, 1011-1018.	0.6	3
95	Distribution of Time-Bin Entangled Qubits over 50 km of Optical Fiber. Physical Review Letters, 2004, 93, 180502.	2.9	251
96	Long Distance Quantum Teleportation in a Quantum Relay Configuration. Physical Review Letters, 2004, 92, 047904.	2.9	160
97	Studies of femtosecond time-bin entangled qubits for quantum communications. Fortschritte Der Physik, 2003, 51, 428-434.	1.5	0
98	Long-distance teleportation of qubits at telecommunication wavelengths. Nature, 2003, 421, 509-513.	13.7	411
99	Quantum Information: Long Distance Quantum Teleportation. Optics and Photonics News, 2003, 14, 39.	0.4	4
100	Quantum interference with photon pairs created in spatially separated sources. Physical Review A, 2003, 67, .	1.0	93
101	Experimental investigation of the robustness of partially entangled qubits over 11 km. Physical Review A, 2002, 66, .	1.0	85
102	Quantum Optics: Quantum Correlations With Moving Observers. Optics and Photonics News, 2002, 13, 51.	0.4	3
103	Time-bin entangled qubits for quantum communication created by femtosecond pulses. Physical Review A, 2002, 66, .	1.0	182
104	Quantum cryptography. Reviews of Modern Physics, 2002, 74, 145-195.	16.4	6,731
105	Experimental test of nonlocal quantum correlation in relativistic configurations. Physical Review A, 2001, 63, .	1.0	103
106	Experimental test of relativistic quantum state collapse with moving reference frames. Journal of Physics A, 2001, 34, 7103-7109.	1.6	13
107	Highly efficient photon-pair source using periodically poled lithium niobate waveguide. Electronics Letters, 2001, 37, 26.	0.5	302
108	Causality, relativity and quantum correlation experiments with moving reference frames. Pramana - Journal of Physics, 2001, 56, 349-355.	0.9	1

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109	Gisin, Tittel, and Zbinden Reply:. Physical Review Letters, 2001, 86, 1393-1393.	2.9	3
110	Experimental demonstration of quantum secret sharing. Physical Review A, 2001, 63, .	1.0	356
111	Photonic entanglement for fundamental tests and quantum communication. Quantum Information and Computation, 2001, 1, 3-56.	0.1	247
112	The speed of quantum information and the preferred frame: analysis of experimental data. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 276, 1-7.	0.9	59
113	Optical tests of quantum nonlocality: from EPR-Bell tests towards experiments with moving observers. Annalen Der Physik, 2000, 9, 831-841.	0.9	17
114	Practical Aspects of Quantum Cryptographic Key Distribution. Journal of Cryptology, 2000, 13, 207-220.	2.1	43
115	Quantum Cryptography Using Entangled Photons in Energy-Time Bell States. Physical Review Letters, 2000, 84, 4737-4740.	2.9	493
116	Quantum cryptography using larger alphabets. Physical Review A, 2000, 61, .	1.0	360
117	Long-distance Bell-type tests using energy-time entangled photons. Physical Review A, 1999, 59, 4150-4163.	1.0	104
118	Pulsed Energy-Time Entangled Twin-Photon Source for Quantum Communication. Physical Review Letters, 1999, 82, 2594-2597.	2.9	555
119	Violation of Bell Inequalities by Photons More Than 10 km Apart. Physical Review Letters, 1998, 81, 3563-3566.	2.9	716
120	Experimental demonstration of quantum correlations over more than 10 km. Physical Review A, 1998, 57, 3229-3232.	1.0	169
121	Interferometry with Faraday mirrors for quantum cryptography. Electronics Letters, 1997, 33, 586.	0.5	107
122	“Plug and play” systems for quantum cryptography. Applied Physics Letters, 1997, 70, 793-795.	1.5	394
123	Non-local two-photon correlations using interferometers physically separated by 35 meters. Europhysics Letters, 1997, 40, 595-600.	0.7	9
124	“Plug and Play” Quantum Cryptography. Optics and Photonics News, 1997, 8, 38.	0.4	2
125	Two independent photon pairs versus four-photon entangled states in parametric down conversion. , 0, .		11