

# Philip Walther

## List of Publications by Year in descending order

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95  
papers

7,340  
citations

117453

34  
h-index

82410

72  
g-index

100  
all docs

100  
docs citations

100  
times ranked

5401  
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental photonic quantum memristor. Nature Photonics, 2022, 16, 318-323.	15.6	62
2	Inferring work by quantum superposing forward and time-reversal evolutions. Physical Review Research, 2022, 4, .	1.3	3
3	Fewâ€Copy Entanglement Detection in the Presence of Noise. Annalen Der Physik, 2022, 534, .	0.9	1
4	Highâ€Harmonic Generation Enhancement with Graphene Heterostructures. Advanced Optical Materials, 2022, 10, .	3.6	6
5	Giant enhancement of third-harmonic generation in grapheneâ€metal heterostructures. Nature Nanotechnology, 2021, 16, 318-324.	15.6	47
6	Fiber-compatible photonic feed-forward with 99% fidelity. Optics Express, 2021, 29, 3425.	1.7	7
7	Experimental quantum homomorphic encryption. Npj Quantum Information, 2021, 7, .	2.8	13
8	Experimental quantum speed-up in reinforcementâ€learning agents. Nature, 2021, 591, 229-233.	13.7	85
9	Quantum cryptography with highly entangled photons from semiconductor quantum dots. Science Advances, 2021, 7, .	4.7	82
10	Towards plasmonic-enhanced optical nonlinearities in graphene metal-heterostructures. , 2021, , .		0
11	Experimental Higher-Order Interference in Quantum Mechanics Induced by Optical Nonlinearities. , 2021, , .		0
12	Photon pair generation in ultra-thin carbon nanotube films without phase-matching. , 2021, , .		1
13	Probabilistic one-time programs using quantum entanglement. Npj Quantum Information, 2021, 7, .	2.8	6
14	Cross-verification of independent quantum devices. , 2021, , .		1
15	Cross-Verification of Independent Quantum Devices. Physical Review X, 2021, 11, .	2.8	7
16	Experimental quantum communication enhancement by superposing trajectories. Physical Review Research, 2021, 3, .	1.3	55
17	Experimental Quantum-enhanced Reinforcement Learning. , 2021, , .		0
18	Scalable spinâ€photon entanglement by time-to-polarizationâ€conversion. Npj Quantum Information, 2020, 6, .	2.8	23

#	ARTICLE	IF	CITATIONS
19	Experimental Resource-Efficient Entanglement Detection. , 2020, , .		0
20	Trace-free counterfactual communication with a nanophotonic processor. Npj Quantum Information, 2019, 5, .	2.8	11
21	Novel single-mode narrow-band photon source of high brightness tuned to cesium D2 line. APL Photonics, 2019, 4, 090804.	3.0	13
22	Experimental Two-Way Communication with One Photon. Advanced Quantum Technologies, 2019, 2, 1900050.	1.8	27
23	Experimental few-copy multipartite entanglement detection. Nature Physics, 2019, 15, 935-940.	6.5	31
24	Quantum computing with graphene plasmons. Npj Quantum Information, 2019, 5, .	2.8	51
25	Nonlinear Enhancement with Graphene Heterostructures. , 2019, , .		0
26	Experimental Entanglement of Temporal Orders. , 2019, , .		3
27	Verifying Multi-Particle Entanglement with a Few Detection Events. , 2019, , .		0
28	Verifying Multi-Partite Entanglement with a Few Detection Events. , 2019, , .		0
29	Integrated-optics heralded controlled-NOT gate for polarization-encoded qubits. Npj Quantum Information, 2018, 4, .	2.8	59
30	Quantum advantage for probabilistic one-time programs. Nature Communications, 2018, 9, 5225.	5.8	14
31	Weakly gravitating isotropic waveguides. Classical and Quantum Gravity, 2018, 35, 244001.	1.5	8
32	Tapering of femtosecond laser-written waveguides. Applied Optics, 2018, 57, 377.	0.9	23
33	Tuning single-photon sources for telecom multi-photon experiments. Optics Express, 2018, 26, 3286.	1.7	15
34	Continuous-Variable Quantum Key Distribution with Gaussian Modulation—The Theory of Practical Implementations. Advanced Quantum Technologies, 2018, 1, 1800011.	1.8	193
35	Single-photon test of hyper-complex quantum theories using a metamaterial. Nature Communications, 2017, 8, 15044.	5.8	27
36	Experimental verification of an indefinite causal order. Science Advances, 2017, 3, e1602589.	4.7	151

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37	Gravitationally induced phase shift on a single photon. <i>New Journal of Physics</i> , 2017, 19, 033028. Numerical Investigation of Photon-Pair Generation in Periodically Poled $M\text{TiO}_X$	1.2	16
38			

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55	Demonstrating elements of measurement-based quantum error correction. <i>Physical Review A</i> , 2014, 90, .	1.0	13
56	A two-qubit photonic quantum processor and its application to solving systems of linear equations. <i>Scientific Reports</i> , 2014, 4, 6115.	1.6	70
57	Experimental verification of quantum computation. <i>Nature Physics</i> , 2013, 9, 727-731.	6.5	104
58	Experimental boson sampling. <i>Nature Photonics</i> , 2013, 7, 540-544.	15.6	567
59	No-go theorem for passive single-rail linear optical quantum computing. <i>Scientific Reports</i> , 2013, 3, 1394.	1.6	11
60	Photonic Quantum Simulation. , 2013, , .		0
61	Discord in the ranks. <i>Nature Photonics</i> , 2012, 6, 724-725.	15.6	6
62	Quantum discord as resource for remote state preparation. <i>Nature Physics</i> , 2012, 8, 666-670.	6.5	397
63	Demonstration of Blind Quantum Computing. <i>Science</i> , 2012, 335, 303-308.	6.0	379
64	Photonic quantum simulators. <i>Nature Physics</i> , 2012, 8, 285-291.	6.5	681
65	Quantum simulation of the wavefunction to probe frustrated Heisenberg spin systems. <i>Nature Physics</i> , 2011, 7, 399-405.	6.5	145
66	Experimental photonic state engineering and quantum control of two optical qubits. , 2011, , .		0
67	Heralded generation of entangled photon pairs. <i>Nature Photonics</i> , 2010, 4, 553-556.	15.6	114
68	Beating the classical camera. <i>Nature Photonics</i> , 2010, 4, 199-200.	15.6	2
69	Experimental Realization of Dicke States of up to Six Qubits for Multiparty Quantum Networking. <i>Physical Review Letters</i> , 2009, 103, 020503.	2.9	211
70	Ligand dynamics on the surface of zirconium oxo clusters. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 3640.	1.3	40
71	Quantum memory for long-distance and multiphoton entanglement. <i>SPIE Newsroom</i> , 2008, , .	0.1	0
72	Experimental realization of a quantum game on a one-way quantum computer. <i>New Journal of Physics</i> , 2007, 9, 205-205.	1.2	54

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73	Heralded generation of multiphoton entanglement. Physical Review A, 2007, 75, .	1.0	33
74	Implementation of Quantum Algorithms using Optical Cluster State. , 2007, , .		0
75	GENERATION OF NARROW-BANDWIDTH SINGLE PHOTONS USING ELECTROMAGNETICALLY INDUCED TRANSPARENCY IN ATOMIC ENSEMBLES. International Journal of Quantum Information, 2007, 05, 51-62.	0.6	12
76	Multi-photon entanglement: from quantum curiosity to quantum computing and quantum repeaters. , 2007, , .		0
77	High-speed linear optics quantum computing using active feed-forward. Nature, 2007, 445, 65-69.	13.7	300
78	Spooky teleportation. Nature Physics, 2006, 2, 655-656.	6.5	0
79	QUANTUM ENTANGLEMENT, PURIFICATION, AND LINEAR-OPTICS QUANTUM GATES WITH PHOTONIC QUBITS. , 2006, , .		0
80	Experimental Entangled Entanglement. Physical Review Letters, 2006, 97, 020501.	2.9	13
81	Experimental one-way quantum computing. Nature, 2005, 434, 169-176.	13.7	1,027
82	Experimental Violation of a Cluster State Bell Inequality. Physical Review Letters, 2005, 95, 020403.	2.9	108
83	Experimental realization of a photonic Bell-state analyzer. Physical Review A, 2005, 72, .	1.0	27
84	Local Conversion of Greenberger-Horne-Zeilinger States to Approximate W States. Physical Review Letters, 2005, 94, .	2.9	67
85	Full Characterization of a Three-Photon Greenberger-Horne-Zeilinger State Using Quantum State Tomography. Physical Review Letters, 2005, 94, 070402.	2.9	107
86	Quantum Nonlocality Obtained from Local States by Entanglement Purification. Physical Review Letters, 2005, 94, 040504.	2.9	24
87	Distributing entanglement and single photons through an intra-city, free-space quantum channel. Optics Express, 2005, 13, 202.	1.7	112
88	Advanced Quantum Communications Experiments with Entangled Photons. Optical Science and Engineering, 2005, , 45-81.	0.1	1
89	Nonlocal photon number states for quantum metrology. , 2004, , .		0
90	De Broglie wavelength of a non-local four-photon state. Nature, 2004, 429, 158-161.	13.7	463

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91	Quantum teleportation across the Danube. Nature, 2004, 430, 849-849.	13.7	261
92	Realization of a Photonic Controlled-NOT Gate Sufficient for Quantum Computation. Physical Review Letters, 2004, 93, 020504.	2.9	261
93	Long-Distance Free-Space Distribution of Quantum Entanglement. Science, 2003, 301, 621-623.	6.0	177
94	Experimental Engineering of Photonic Quantum Entanglement. , 0, , .		0
95	Experimental entanglement of temporal order. Quantum - the Open Journal for Quantum Science, 0, 6, 621.	0.0	24