

# Yu-Ao Chen

## List of Publications by Year in descending order

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117  
papers

14,023  
citations

30070

54  
h-index

23533

111  
g-index

118  
all docs

118  
docs citations

118  
times ranked

8185  
citing authors

#	ARTICLE	IF	CITATIONS
1	Satellite-to-ground quantum key distribution. <i>Nature</i> , 2017, 549, 43-47.	27.8	1,040
2	Satellite-based entanglement distribution over 1200 kilometers. <i>Science</i> , 2017, 356, 1140-1144.	12.6	870
3	Probing the relaxation towards equilibrium in an isolated strongly correlated one-dimensional Bose gas. <i>Nature Physics</i> , 2012, 8, 325-330.	16.7	762
4	Experimental Realization of Strong Effective Magnetic Fields in an Optical Lattice. <i>Physical Review Letters</i> , 2011, 107, 255301.	7.8	629
5	Experimental demonstration of five-photon entanglement and open-destination teleportation. <i>Nature</i> , 2004, 430, 54-58.	27.8	532
6	Ground-to-satellite quantum teleportation. <i>Nature</i> , 2017, 549, 70-73.	27.8	524
7	Satellite-Relayed Intercontinental Quantum Network. <i>Physical Review Letters</i> , 2018, 120, 030501.	7.8	499
8	An integrated space-to-ground quantum communication network over 4,600 kilometres. <i>Nature</i> , 2021, 589, 214-219.	27.8	415
9	Experimental Ten-Photon Entanglement. <i>Physical Review Letters</i> , 2016, 117, 210502.	7.8	403
10	Quantum teleportation and entanglement distribution over 100-kilometre free-space channels. <i>Nature</i> , 2012, 488, 185-188.	27.8	397
11	Experimental demonstration of a BDCZ quantum repeater node. <i>Nature</i> , 2008, 454, 1098-1101.	27.8	372
12	Experimental demonstration of a heralded entanglement source. <i>Nature Photonics</i> , 2010, 4, 549-552.	31.4	357
13	Observation of eight-photon entanglement. <i>Nature Photonics</i> , 2012, 6, 225-228.	31.4	355
14	Entanglement-based secure quantum cryptography over 1,120 kilometres. <i>Nature</i> , 2020, 582, 501-505.	27.8	350
15	10-Qubit Entanglement and Parallel Logic Operations with a Superconducting Circuit. <i>Physical Review Letters</i> , 2017, 119, 180511.	7.8	313
16	Experimental demonstration of a hyper-entangled ten-qubit Schrödinger cat state. <i>Nature Physics</i> , 2010, 6, 331-335.	16.7	282
17	12-Photon Entanglement and Scalable Scattershot Boson Sampling with Optimal Entangled-Photon Pairs from Parametric Down-Conversion. <i>Physical Review Letters</i> , 2018, 121, 250505.	7.8	249
18	Direct and full-scale experimental verifications towards ground-satellite quantum key distribution. <i>Nature Photonics</i> , 2013, 7, 387-393.	31.4	247

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19	A millisecond quantum memory for scalable quantum networks. <i>Nature Physics</i> , 2009, 5, 95-99.	16.7	217
20	Experimental Realization of Entanglement Concentration and a Quantum Repeater. <i>Physical Review Letters</i> , 2003, 90, 207901.	7.8	203
21	Experimental Violation of Local Realism by Four-Photon Greenberger-Horne-Zeilinger Entanglement. <i>Physical Review Letters</i> , 2003, 91, 180401.	7.8	190
22	Robust Creation of Entanglement between Remote Memory Qubits. <i>Physical Review Letters</i> , 2007, 98, 240502.	7.8	179
23	Experimental quantum teleportation of a two-qubit composite system. <i>Nature Physics</i> , 2006, 2, 678-682.	16.7	174
24	Memory-built-in quantum teleportation with photonic and atomic qubits. <i>Nature Physics</i> , 2008, 4, 103-107.	16.7	170
25	Satellite-to-Ground Entanglement-Based Quantum Key Distribution. <i>Physical Review Letters</i> , 2017, 119, 200501.	7.8	166
26	Experimental Realization of One-Way Quantum Computing with Two-Photon Four-Qubit Cluster States. <i>Physical Review Letters</i> , 2007, 99, 120503.	7.8	165
27	Experimental demonstration of topological error correction. <i>Nature</i> , 2012, 482, 489-494.	27.8	162
28	Large scale quantum key distribution: challenges and solutions [Invited]. <i>Optics Express</i> , 2018, 26, 24260.	3.4	148
29	Controlling Correlated Tunneling and Superexchange Interactions with ac-Driven Optical Lattices. <i>Physical Review Letters</i> , 2011, 107, 210405.	7.8	142
30	Experimental Quantum Secret Sharing and Third-Man Quantum Cryptography. <i>Physical Review Letters</i> , 2005, 95, 200502.	7.8	137
31	Robust and efficient quantum repeaters with atomic ensembles and linear optics. <i>Physical Review A</i> , 2008, 77, .	2.5	135
32	Implementation of quantum key distribution surpassing the linear rate-transmittance bound. <i>Nature Photonics</i> , 2020, 14, 422-425.	31.4	130
33	Experimental Demonstration of a Nondestructive Controlled-NOT Quantum Gate for Two Independent Photon Qubits. <i>Physical Review Letters</i> , 2005, 94, 030501.	7.8	128
34	Deterministic and Storable Single-Photon Source Based on a Quantum Memory. <i>Physical Review Letters</i> , 2006, 97, 173004.	7.8	127
35	Many-body Landau-Zener dynamics in coupled one-dimensional Bose liquids. <i>Nature Physics</i> , 2011, 7, 61-67.	16.7	124
36	Fault-tolerant quantum repeater with atomic ensembles and linear optics. <i>Physical Review A</i> , 2007, 76, .	2.5	108

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37	Demonstration of a Stable Atom-Photon Entanglement Source for Quantum Repeaters. Physical Review Letters, 2007, 99, 180505.	7.8	108
38	Genuine High-Order Einstein-Podolsky-Rosen Steering. Physical Review Letters, 2015, 115, 010402.	7.8	107
39	Multistage Entanglement Swapping. Physical Review Letters, 2008, 101, 080403.	7.8	101
40	Experimental quantum repeater without quantum memory. Nature Photonics, 2019, 13, 644-648.	31.4	93
41	Controlling and Detecting Spin Correlations of Ultracold Atoms in Optical Lattices. Physical Review Letters, 2010, 105, 265303.	7.8	91
42	Observation of Coupled Vortex Lattices in a Mass-Imbalance Bose and Fermi Superfluid Mixture. Physical Review Letters, 2016, 117, 145301.	7.8	88
43	Experimental Realization of Optimal Asymmetric Cloning and Telecloning via Partial Teleportation. Physical Review Letters, 2005, 95, 030502.	7.8	87
44	Experimental Quantum Generative Adversarial Networks for Image Generation. Physical Review Applied, 2021, 16, .	3.8	87
45	High-Speed Device-Independent Quantum Random Number Generation without a Detection Loophole. Physical Review Letters, 2018, 120, 010503.	7.8	85
46	Four-body ring-exchange interactions and anyonic statistics within a minimal toric-code Hamiltonian. Nature Physics, 2017, 13, 1195-1200.	16.7	82
47	Experimental Quantum Switching for Exponentially Superior Quantum Communication Complexity. Physical Review Letters, 2019, 122, 120504.	7.8	82
48	Experimental Realization of Plaquette Resonating Valence-Bond States with Ultracold Atoms in Optical Superlattices. Physical Review Letters, 2012, 108, 205301.	7.8	80
49	Distributed quantum phase estimation with entangled photons. Nature Photonics, 2021, 15, 137-142.	31.4	71
50	Direct counterfactual communication via quantum Zeno effect. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4920-4924.	7.1	68
51	Secret Sharing of a Quantum State. Physical Review Letters, 2016, 117, 030501.	7.8	65
52	Generation and detection of atomic spin entanglement in optical lattices. Nature Physics, 2016, 12, 783-787.	16.7	65
53	Experimental quasi-single-photon transmission from satellite to earth. Optics Express, 2013, 21, 20032.	3.4	63
54	Experimental construction of optical multiqubit cluster states from Bell states. Physical Review A, 2006, 73, .	2.5	56

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55	Synchronized Independent Narrow-Band Single Photons and Efficient Generation of Photonic Entanglement. <i>Physical Review Letters</i> , 2007, 98, 180503.	7.8	56
56	Experimental realization of strong effective magnetic fields in optical superlattice potentials. <i>Applied Physics B: Lasers and Optics</i> , 2013, 113, 1-11.	2.2	53
57	Observation of ten-photon entanglement using thin BiB <sub>3</sub> O <sub>6</sub> crystals. <i>Optica</i> , 2017, 4, 77.	9.3	52
58	Heralded Generation of an Atomic NOON State. <i>Physical Review Letters</i> , 2010, 104, 043601.	7.8	50
59	Controlled state-to-state atom-exchange reaction in an ultracold atom-dimer mixture. <i>Nature Physics</i> , 2017, 13, 699-703.	16.7	48
60	Space-to-Ground Quantum Key Distribution Using a Small-Sized Payload on Tiangong-2 Space Lab. <i>Chinese Physics Letters</i> , 2017, 34, 090302.	3.3	48
61	Experimental nested purification for a linear optical quantum repeater. <i>Nature Photonics</i> , 2017, 11, 695-699.	31.4	46
62	Teleportation-based realization of an optical quantum two-qubit entangling gate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 20869-20874.	7.1	44
63	Implementation of a Measurement-Device-Independent Entanglement Witness. <i>Physical Review Letters</i> , 2014, 112, 140506.	7.8	44
64	Towards satellite-based quantum-secure time transfer. <i>Nature Physics</i> , 2020, 16, 848-852.	16.7	43
65	Satellite testing of a gravitationally induced quantum decoherence model. <i>Science</i> , 2019, 366, 132-135.	12.6	40
66	Experimental realization of a concatenated Greenberger-Horne-Zeilinger state for macroscopic quantum superpositions. <i>Nature Photonics</i> , 2014, 8, 364-368.	31.4	38
67	Increasing the Statistical Significance of Entanglement Detection in Experiments. <i>Physical Review Letters</i> , 2010, 104, 210401.	7.8	32
68	Bell Test over Extremely High-Loss Channels: Towards Distributing Entangled Photon Pairs between Earth and the Moon. <i>Physical Review Letters</i> , 2018, 120, 140405.	7.8	32
69	Experimental quantum network coding. <i>Npj Quantum Information</i> , 2019, 5, .	6.7	31
70	Landau-Zener Sweeps and Sudden Quenches in Coupled Bose-Hubbard Chains. <i>Physical Review Letters</i> , 2011, 106, 155302.	7.8	30
71	Production of large $K$ Bose-Einstein condensates using $D$ molasses. <i>Physical Review A</i> , 2016, 94, .	2.5	26
72	Two-Hierarchy Entanglement Swapping for a Linear Optical Quantum Repeater. <i>Physical Review Letters</i> , 2017, 119, 170502.	7.8	26

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73	Experimental quantum channel simulation. Physical Review A, 2017, 95, .	2.5	24
74	Quantum Memory with Optically Trapped Atoms. Physical Review Letters, 2008, 101, 120501.	7.8	23
75	Entanglement Structure: Entanglement Partitioning in Multipartite Systems and Its Experimental Detection Using Optimizable Witnesses. Physical Review X, 2018, 8, .	8.9	23
76	Coupled dipole oscillations of a mass-imbalanced Bose-Fermi superfluid mixture. Physical Review B, 2018, 97, .	3.2	22
77	Experimental exploration of five-qubit quantum error-correcting code with superconducting qubits. National Science Review, 2022, 9, nwab011.	9.5	22
78	Degenerate Bose gases near a d-wave shape resonance. Nature Physics, 2019, 15, 570-576.	16.7	21
79	Experimental Quantum Error Rejection for Quantum Communication. Physical Review Letters, 2006, 96, 220504.	7.8	19
80	Experimental measurement-based quantum computing beyond the cluster-state model. Nature Photonics, 2011, 5, 117-123.	31.4	19
81	High-power 671-nm laser by second-harmonic generation with 93% efficiency in an external ring cavity. Optics Letters, 2018, 43, 1666.	3.3	18
82	Experimental Violation of Bell's Inequality beyond Tsirelson's Bound. Physical Review Letters, 2006, 97, 170408.	7.8	17
83	Second sound attenuation near quantum criticality. Science, 2022, 375, 528-533.	12.6	15
84	Quantum State Transfer over 1200 km Assisted by Prior Distributed Entanglement. Physical Review Letters, 2022, 128, 170501.	7.8	15
85	Color Erasure Detectors Enable Chromatic Interferometry. Physical Review Letters, 2019, 123, 243601.	7.8	12
86	Measurement-Device-Independent Entanglement Witness of Tripartite Entangled States and Its Applications. Physical Review Letters, 2020, 124, 160503.	7.8	12
87	Experimental Realization of Programmable Quantum Gate Array for Directly Probing Commutation Relations of Pauli Operators. Physical Review Letters, 2010, 105, 120402.	7.8	11
88	A quantum degenerate Bose-Fermi mixture of $^4\text{He}$ and $^6\text{Li}$ . Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 094001.	1.5	11
89	Narrow-linewidth cooling of $^6\text{Li}$ atoms using the 2S-3P transition. Applied Physics B: Lasers and Optics, 2016, 122, 1.	2.2	10
90	Discriminating quantum correlations with networking quantum teleportation. Physical Review Research, 2020, 2, .	3.6	10

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91	11-watt single-frequency 1342-nm laser based on multi-segmented Nd:YVO <sub>4</sub> crystal. Optics Express, 2019, 27, 31913.	3.4	9
92	Loss-tolerant all-photonic quantum repeater with generalized Shor code. Optica, 2022, 9, 152.	9.3	9
93	Comment on "Quantum Key Distribution with Blind Polarization Bases". Physical Review Letters, 2006, 96, 078901; author reply 078902.	7.8	8
94	Counting Classical Nodes in Quantum Networks. Physical Review Letters, 2020, 124, 180503.	7.8	8
95	30 W, sub-kHz frequency-locked laser at 532 nm. Optics Express, 2018, 26, 33756.	3.4	7
96	Deterministic spin-wave interferometer based on the Rydberg blockade. Physical Review A, 2011, 83, .	2.5	6
97	Dynamic formation of quasicondensate and spontaneous vortices in a strongly interacting Fermi gas. Physical Review Research, 2021, 3, .	3.6	6
98	Efficient Bipartite Entanglement Detection Scheme with a Quantum Adversarial Solver. Physical Review Letters, 2022, 128, 110501.	7.8	6
99	Oscillatory-like expansion of a Fermionic superfluid. Science Bulletin, 2020, 65, 7-11.	9.0	5
100	Universal Dynamical Scaling of Quasi-Two-Dimensional Vortices in a Strongly Interacting Fermionic Superfluid. Physical Review Letters, 2021, 126, 185302.	7.8	5
101	Photonic realization of quantum resetting. Optica, 2020, 7, 766.	9.3	5
102	Feshbach spectroscopy of an ultracold K <sup>41</sup> Li <sup>6</sup> mixture and K <sup>41</sup> atoms. Physical Review A, 2018, 98, .	2.5	4
103	Sine wave gating silicon single-photon detectors for multiphoton entanglement experiments. Review of Scientific Instruments, 2017, 88, 083102.	1.3	3
104	Improved Spatial Resolution Achieved by Chromatic Intensity Interferometry. Physical Review Letters, 2021, 127, 103601.	7.8	3
105	High detection efficiency silicon single-photon detector with a monolithic integrated circuit of active quenching and active reset. Review of Scientific Instruments, 2020, 91, 123106.	1.3	3
106	Space-based quantum communication towards global quantum network. , 2017, , .		2
107	Verification of a resetting protocol for an uncontrolled superconducting qubit. Npj Quantum Information, 2020, 6, .	6.7	2
108	Observation of state-to-state hyperfine-changing collisions in a Bose-Fermi mixture of $^6\text{Li}$ and $^4\text{K}$ atoms. Physical Review A, 2020, 101, .	2.5	2

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109	Chromatic interferometry with small frequency differences. <i>Optics Express</i> , 2020, 28, 32294.	3.4	2
110	A battery-powered floating current source of 100 A for precise and fast control of magnetic field. <i>AIP Advances</i> , 2020, 10, .	1.3	2
111	Experimental random-party entanglement distillation via weak measurement. <i>Physical Review Research</i> , 2020, 2, .	3.6	2
112	Observation of the density dependence of the closed-channel fraction of a 6Li superfluid. <i>National Science Review</i> , 2022, 9, .	9.5	1
113	Scalable Quantum Computing with Linear Optics and Quantum Memories. <i>Optics and Photonics News</i> , 2007, 18, 34.	0.5	0
114	Quantum Information Processing with Photons. , 2014, , .		0
115	High-power High-efficiency Second Harmonic Generation of 1342-nm Laser in LBO and PPKTP. , 2019, , .		0
116	Demonstration of an Exponential Advantage in Communication Complexity via the Quantum Switch. , 2020, , .		0
117	Discriminating Quantum Correlations with Networking Quantum Teleportation. , 2020, , .		0