

Akira Furusawa

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

148
papers

10,061
citations

46
h-index

99
g-index

215
ext. papers

11,991
ext. citations

7
avg. IF

6.24
L-index

#	Paper	IF	Citations
148	Generation of Schrödinger cat states with Wigner negativity using a continuous-wave low-loss waveguide optical parametric amplifier.. <i>Optics Express</i> , 2022 , 30, 14161-14171	3.3	3
147	Estimation of Gaussian random displacement using non-Gaussian states. <i>Physical Review A</i> , 2021 , 104,	2.6	1
146	Non-Clifford gate on optical qubits by nonlinear feedforward. <i>Physical Review Research</i> , 2021 , 3,	3.9	1
145	Quantum detector tomography of a superconducting nanostrip photon-number-resolving detector. <i>Optics Express</i> , 2021 , 29, 11728-11738	3.3	7
144	Wave-function engineering via conditional quantum teleportation with a non-Gaussian entanglement resource. <i>Physical Review A</i> , 2021 , 103,	2.6	3
143	Erratum to 4-dB Quadrature Squeezing With Fiber-Coupled PPLN Ridge Waveguide Module [Jun 20 10.1109/JQE.2020.2982698]. <i>IEEE Journal of Quantum Electronics</i> , 2021 , 57, 1-1	2	
142	Reduction of quantum noise using the quantum locking with an optical spring for gravitational wave detectors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2021 , 402, 127365	2.3	0
141	Nonlinear Squeezing for Measurement-Based Non-Gaussian Operations in Time Domain. <i>Physical Review Applied</i> , 2021 , 15,	4.3	5
140	Time-Domain-Multiplexed Measurement-Based Quantum Operations with 25-MHz Clock Frequency. <i>Physical Review Applied</i> , 2021 , 16,	4.3	9
139	Generation of optical Schrödinger cat states by generalized photon subtraction. <i>Physical Review A</i> , 2021 , 103,	2.6	6
138	Fabrication of low-loss quasi-single-mode PPLN waveguide and its application to a modularized broadband high-level squeezer. <i>Applied Physics Letters</i> , 2021 , 119, 251104	3.4	6
137	Optimization of quantum noise by completing the square of multiple interferometer outputs in quantum locking for gravitational wave detectors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2020 , 384, 126626	2.3	5
136	Continuous-wave 6-dB-squeezed light with 2.5-THz-bandwidth from single-mode PPLN waveguide. <i>APL Photonics</i> , 2020 , 5, 036104	5.2	36
135	4-dB Quadrature Squeezing With Fiber-Coupled PPLN Ridge Waveguide Module. <i>IEEE Journal of Quantum Electronics</i> , 2020 , 56, 1-5	2	6
134	Phase Locking between Two All-Optical Quantum Memories. <i>Physical Review Letters</i> , 2020 , 125, 260508	7.4	1
133	All-optical phase-sensitive detection for ultra-fast quantum computation. <i>Optics Express</i> , 2020 , 28, 34916-34926	5.3	65
132	Extending the piezoelectric transducer bandwidth of an optical interferometer by suppressing resonance using a high dimensional IIR filter implemented on an FPGA. <i>Review of Scientific Instruments</i> , 2020 , 91, 055102	1.7	1

131	Temporal-mode continuous-variable three-dimensional cluster state for topologically protected measurement-based quantum computation. <i>Physical Review A</i> , 2020 , 102,	2.6	10
130	All-Optical Storage of Phase-Sensitive Quantum States of Light. <i>Physical Review Letters</i> , 2019 , 123, 113603	4.3	9
129	Toward large-scale fault-tolerant universal photonic quantum computing. <i>APL Photonics</i> , 2019 , 4, 060903	2.2	54
128	On-demand photonic entanglement synthesizer. <i>Science Advances</i> , 2019 , 5, eaaw4530	14.3	25
127	Complete temporal mode characterization of non-Gaussian states by a dual homodyne measurement. <i>Physical Review A</i> , 2019 , 99,	2.6	3
126	Generation of time-domain-multiplexed two-dimensional cluster state. <i>Science</i> , 2019 , 366, 373-376	33.3	124
125	Generation and measurement of a squeezed vacuum up to 100 MHz at 1550 nm with a semi-monolithic optical parametric oscillator designed towards direct coupling with waveguide modules. <i>Optics Express</i> , 2019 , 27, 18900-18909	3.3	7
124	Universal quantum computation with temporal-mode bilayer square lattices. <i>Physical Review A</i> , 2018 , 97,	2.6	25
123	General implementation of arbitrary nonlinear quadrature phase gates. <i>Physical Review A</i> , 2018 , 97,	2.6	28
122	Optical quantum information processing and storage 2018 ,		1
121	Quantum nondemolition gate operations and measurements in real time on fluctuating signals. <i>Physical Review A</i> , 2018 , 98,	2.6	10
120	Excess Loss in Homodyne Detection Originating from Distributed Photocarrier Generation in Photodiodes. <i>Physical Review Applied</i> , 2018 , 10,	4.3	2
119	Generation of a Cat State in an Optical Sideband. <i>Physical Review Letters</i> , 2018 , 121, 143602	7.4	10
118	Heralded creation of photonic qudits from parametric down-conversion using linear optics. <i>Physical Review A</i> , 2018 , 97,	2.6	14
117	500 MHz resonant photodetector for high-quantum-efficiency, low-noise homodyne measurement. <i>Review of Scientific Instruments</i> , 2018 , 89, 063120	1.7	7
116	Direct observation of phase-sensitive Hong-Ou-Mandel interference. <i>Physical Review A</i> , 2017 , 96,	2.6	7
115	Perspective on hybrid quantum information processing: a method for large-scale quantum information processing. <i>Journal of Optics (United Kingdom)</i> , 2017 , 19, 070401	1.7	0
114	Universal Quantum Computing with Measurement-Induced Continuous-Variable Gate Sequence in a Loop-Based Architecture. <i>Physical Review Letters</i> , 2017 , 119, 120504	7.4	33

113	Purification of photon subtraction from continuous squeezed light by filtering. <i>Physical Review A</i> , 2017 , 96,	2.6	7
112	Generation of highly pure Schrödinger cat states and real-time quadrature measurements via optical filtering. <i>Optics Express</i> , 2017 , 25, 32227	3.3	25
111	Implementation of a quantum cubic gate by an adaptive non-Gaussian measurement. <i>Physical Review A</i> , 2016 , 93,	2.6	57
110	Spectrum analysis with quantum dynamical systems. <i>Physical Review A</i> , 2016 , 93,	2.6	18
109	Real-Time Quadrature Measurement of a Single-Photon Wave Packet with Continuous Temporal-Mode Matching. <i>Physical Review Letters</i> , 2016 , 116, 233602	7.4	25
108	Mitigation of radiation-pressure-induced angular instability of a Fabry-Pérot cavity consisting of suspended mirrors. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016 , 380, 3871-3875	2.3	4
107	Synchronization of optical photons for quantum information processing. <i>Science Advances</i> , 2016 , 2, e1501732	17.32	39
106	New method to measure the angular antispring effect in a Fabry-Pérot cavity with remote excitation using radiation pressure. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016 , 380, 983-988	2.3	2
105	Optical Hybrid Quantum Information Processing. <i>Lecture Notes in Physics</i> , 2016 , 439-458	0.8	1
104	Invited Article: Generation of one-million-mode continuous-variable cluster state by unlimited time-domain multiplexing. <i>APL Photonics</i> , 2016 , 1, 060801	5.2	119
103	Observation of reduction of radiation-pressure-induced rotational anti-spring effect on a 23 mg mirror in a Fabry-Pérot cavity. <i>Classical and Quantum Gravity</i> , 2016 , 33, 145002	3.3	4
102	Experimental proof of nonlocal wavefunction collapse for a single particle using homodyne measurements. <i>Nature Communications</i> , 2015 , 6, 6665	17.4	60
101	Continuous-variable entanglement on a chip. <i>Nature Photonics</i> , 2015 , 9, 316-319	33.9	73
100	Advances in quantum teleportation. <i>Nature Photonics</i> , 2015 , 9, 641-652	33.9	297
99	Hybrid discrete- and continuous-variable quantum information. <i>Nature Physics</i> , 2015 , 11, 713-719	16.2	196
98	Demonstration of a fully tunable entangling gate for continuous-variable one-way quantum computation. <i>Physical Review A</i> , 2015 , 92,	2.6	8
97	Entanglement swapping between discrete and continuous variables. <i>Physical Review Letters</i> , 2015 , 114, 100501	7.4	68
96	On-Demand Release of a Heralded Quantum State from Concatenated Optical Cavities. <i>Nano-optics and Nanophotonics</i> , 2015 , 217-240	0	

95	Exploring a new regime for processing optical qubits: squeezing and unsqueezing single photons. <i>Physical Review Letters</i> , 2014 , 113, 013601	7.4	46
94	Nonlocal quantum gate on quantum continuous variables with minimal resources. <i>Physical Review A</i> , 2014 , 90,	2.6	15
93	Noiseless Conditional Teleportation of a Single Photon. <i>Physical Review Letters</i> , 2014 , 113, 223602	7.4	16
92	Experimental realization of a dynamic squeezing gate. <i>Physical Review A</i> , 2014 , 90,	2.6	26
91	Deterministic quantum teleportation of photonic quantum bits by a hybrid technique. <i>Nature</i> , 2013 , 500, 315-8	50.4	150
90	Generation and eight-port homodyne characterization of time-bin qubits for continuous-variable quantum information processing. <i>Physical Review A</i> , 2013 , 87,	2.6	23
89	Ultra-large-scale continuous-variable cluster states multiplexed in the time domain. <i>Nature Photonics</i> , 2013 , 7, 982-986	33.9	289
88	Creation, Storage, and On-Demand Release of Optical Quantum States with a Negative Wigner Function. <i>Physical Review X</i> , 2013 , 3,	9.1	36
87	Generating superposition of up-to three photons for continuous variable quantum information processing. <i>Optics Express</i> , 2013 , 21, 5529-35	3.3	95
86	Quantum-limited mirror-motion estimation. <i>Physical Review Letters</i> , 2013 , 111, 163602	7.4	38
85	Gain tuning for continuous-variable quantum teleportation of discrete-variable states. <i>Physical Review A</i> , 2013 , 88,	2.6	20
84	Emulating quantum cubic nonlinearity. <i>Physical Review A</i> , 2013 , 88,	2.6	47
83	Experimental Demonstration of Coherent Feedback Control on Optical Field Squeezing. <i>IEEE Transactions on Automatic Control</i> , 2012 , 57, 2045-2050	5.9	64
82	Quantum-enhanced optical-phase tracking. <i>Science</i> , 2012 , 337, 1514-7	33.3	148
81	Quantum mode filtering of non-Gaussian states for teleportation-based quantum information processing. <i>Physical Review A</i> , 2012 , 85,	2.6	9
80	Deterministic implementation of weak quantum cubic nonlinearity. <i>Physical Review A</i> , 2011 , 84,	2.6	65
79	Teleportation of nonclassical wave packets of light. <i>Science</i> , 2011 , 332, 330-3	33.3	130
78	2011 ,		110

77	Introduction to Optical Quantum Information Processing 2011 , 79-123		
76	Entanglement 2011 , 125-178		
75	Quantum Teleportation 2011 , 179-215		
74	Quantum Error Correction 2011 , 217-241		
73	Quantum Teleportation of Gates 2011 , 243-270		
72	Cluster-Based Quantum Information Processing 2011 , 271-297		
71	Hybrid Quantum Information Processing 2011 , 299-321		
70	Introduction to Quantum Information Processing 2011 , 1-77		
69	Optical homodyne tomography with polynomial series expansion. <i>Physical Review A</i> , 2011 , 84,	2.6	6
68	Quantum teleportation of nonclassical wave packets: An effective multimode theory. <i>Physical Review A</i> , 2011 , 84,	2.6	9
67	Demonstration of a reversible phase-insensitive optical amplifier. <i>Physical Review A</i> , 2011 , 83,	2.6	13
66	Demonstration of a controlled-phase gate for continuous-variable one-way quantum computation. <i>Physical Review Letters</i> , 2011 , 107, 250501	7.4	44
65	Demonstration of unconditional one-way quantum computations for continuous variables. <i>Physical Review Letters</i> , 2011 , 106, 240504	7.4	98
64	Quantum teleportation and quantum information processing 2011 ,		3
63	Quantum Teleportation. <i>Hyomen Kagaku</i> , 2011 , 32, 801-803		
62	Continuous-variable quantum information processing with squeezed states of light. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2010 , 108, 288-296	0.7	12
61	Entanglement distillation from Gaussian input states. <i>Nature Photonics</i> , 2010 , 4, 178-181	33.9	202
60	Demonstration of cluster-state shaping and quantum erasure for continuous variables. <i>Physical Review A</i> , 2010 , 82,	2.6	16

59	Universal linear Bogoliubov transformations through one-way quantum computation. <i>Physical Review A</i> , 2010 , 81,	2.6	43
58	Quantum memory of a squeezed vacuum for arbitrary frequency sidebands. <i>Physical Review A</i> , 2010 , 81,	2.6	14
57	Adaptive optical phase estimation using time-symmetric quantum smoothing. <i>Physical Review Letters</i> , 2010 , 104, 093601	7.4	65
56	Efficient generation of highly squeezed light with periodically poled MgO:LiNbO ₃ . <i>Optics Express</i> , 2010 , 18, 13114-21	3.3	12
55	Generation of squeezed light with a monolithic optical parametric oscillator: simultaneous achievement of phase matching and cavity resonance by temperature control. <i>Optics Express</i> , 2010 , 18, 20143-50	3.3	20
54	Continuous-variable teleportation of a negative Wigner function. <i>Physical Review A</i> , 2010 , 82,	2.6	15
53	Quantum Teleportation of Wavepackets in a Non-Gaussian State 2009 ,		1
52	Demonstration of a universal one-way quantum quadratic phase gate. <i>Physical Review A</i> , 2009 , 80,	2.6	41
51	Photonic quantum technologies. <i>Nature Photonics</i> , 2009 , 3, 687-695	33.9	1288
50	Quantum error correction beyond qubits. <i>Nature Physics</i> , 2009 , 5, 541-546	16.2	85
49	Storage and retrieval of a squeezed vacuum. <i>Physical Review Letters</i> , 2008 , 100, 093601	7.4	184
48	Generation of large-amplitude coherent-state superposition via ancilla-assisted photon subtraction. <i>Physical Review Letters</i> , 2008 , 101, 233605	7.4	156
47	High-fidelity continuous-variable quantum teleportation toward multistep quantum operations. <i>Physical Review A</i> , 2008 , 77,	2.6	44
46	Demonstration of a quantum nondemolition sum gate. <i>Physical Review Letters</i> , 2008 , 101, 250501	7.4	80
45	Experimental generation of four-mode continuous-variable cluster states. <i>Physical Review A</i> , 2008 , 78,	2.6	150
44	Preface to Special Issue on Present and Future Status of Quantum Communication Technology Using Coherent Optics. <i>The Review of Laser Engineering</i> , 2008 , 36, 397-398	0	
43	Quantum teleportation for continuous variables and related quantum information processing. <i>Physics Reports</i> , 2007 , 443, 97-119	27.7	54
42	Demonstration of deterministic and high fidelity squeezing of quantum information. <i>Physical Review A</i> , 2007 , 76,	2.6	65

41	Experimental demonstration of macroscopic quantum coherence in Gaussian states. <i>Physical Review A</i> , 2007 , 76,	2.6	11
40	Ultraslow propagation of squeezed vacuum pulses with electromagnetically induced transparency. <i>Physical Review Letters</i> , 2007 , 99, 153602	7.4	40
39	Sequential quantum teleportation of optical coherent states. <i>Physical Review A</i> , 2007 , 76,	2.6	23
38	Photon subtracted squeezed states generated with periodically poled KTiOPO(4). <i>Optics Express</i> , 2007 , 15, 3568-74	3.3	211
37	Observation of -9 dB quadrature squeezing with improvement of phase stability in homodyne measurement. <i>Optics Express</i> , 2007 , 15, 4321-7	3.3	189
36	Observation of electromagnetically induced transparency for a squeezed vacuum with the time domain method. <i>Optics Express</i> , 2007 , 15, 11849-54	3.3	19
35	Experimental demonstration of quantum teleportation of broadband squeezing. <i>Physical Review Letters</i> , 2007 , 99, 110503	7.4	52
34	Generation of continuous-wave broadband entangled beams using periodically poled lithium niobate waveguides. <i>Applied Physics Letters</i> , 2007 , 90, 041111	3.4	39
33	High-Fidelity Quantum Teleportation and a Quantum Teleportation Network 2007 , 265-284		
32	Demonstration of quantum telecloning of optical coherent states. <i>Physical Review Letters</i> , 2006 , 96, 060504	7.4	69
31	Time-gated Einstein-Podolsky-Rosen correlation. <i>Physical Review A</i> , 2006 , 74,	2.6	29
30	7dB quadrature squeezing at 860nm with periodically poled KTiOPO4. <i>Applied Physics Letters</i> , 2006 , 89, 061116	3.4	75
29	Generation of a squeezed vacuum resonant on a rubidium D1 line with periodically poled KTiOPO4. <i>Optics Letters</i> , 2006 , 31, 2344-6	3	44
28	Squeezing at 946nm with periodically poled KTiOPO(4). <i>Optics Express</i> , 2006 , 14, 6930-5	3.3	44
27	High-fidelity teleportation beyond the no-cloning limit and entanglement swapping for continuous variables. <i>Physical Review Letters</i> , 2005 , 94, 220502	7.4	169
26	Experimental demonstration of entanglement-assisted coding using a two-mode squeezed vacuum state. <i>Physical Review A</i> , 2005 , 71,	2.6	49
25	Quantum Information Networks: Present and Future 2005 , FWM3		
24	Experimental demonstration of quantum teleportation of a squeezed state. <i>Physical Review A</i> , 2005 , 72,	2.6	62

23	Demonstration of a quantum teleportation network for continuous variables. <i>Nature</i> , 2004 , 431, 430-3	50.4	233
22	Detecting genuine multipartite continuous-variable entanglement. <i>Physical Review A</i> , 2003 , 67,	2.6	313
21	Experimental creation of a fully inseparable tripartite continuous-variable state. <i>Physical Review Letters</i> , 2003 , 91, 080404	7.4	202
20	Experimental Realization of Continuous Variable Teleportation 2003 , 77-93		
19	Topical Papers on Quantum Optics and Quantum Information Science. <i>The Review of Laser Engineering</i> , 2003 , 31, 582-585	0	
18	Gain tuning and fidelity in continuous-variable quantum teleportation. <i>Physical Review A</i> , 2002 , 65,	2.6	28
17	Information losses in continuous-variable quantum teleportation. <i>Physical Review A</i> , 2001 , 64,	2.6	14
16	Continuous-variable teleportation of single-photon states. <i>Physical Review A</i> , 2001 , 65,	2.6	33
15	Nonclassical correlations of photon number and field components in the vacuum state. <i>Physical Review A</i> , 2000 , 62,	2.6	5
14	Fidelity and information in the quantum teleportation of continuous variables. <i>Physical Review A</i> , 2000 , 62,	2.6	72
13	Unconditional quantum teleportation. <i>Science</i> , 1998 , 282, 706-9	33.3	2086
12	Cavity QED with high-Q whispering gallery modes. <i>Physical Review A</i> , 1998 , 57, R2293-R2296	2.6	201
11	Amplitude squeezing of a semiconductor laser with light injection. <i>Optics Letters</i> , 1996 , 21, 2014-6	3	11
10	Photochemical hole burning of tetraphenylporphine derivatives: relationship between the quantum efficiency for hole formation and chemical structure of tetraphenylporphine derivatives. <i>Chemistry of Materials</i> , 1993 , 5, 366-371	9.6	19
9	Photochemical hole burning by photoinduced electron transfer. Effects of sacrificially consumable molecules. <i>Chemical Physics Letters</i> , 1993 , 210, 411-415	2.5	3
8	Photochemical hole burning (PHB) of tetraphenylporphin in poly(ethylene terephthalate). <i>Polymer</i> , 1991 , 32, 851-855	3.9	10
7	Photochemical hole burning of tetraphenylporphin in an aromatic polyimide. <i>Polymer</i> , 1991 , 32, 2167-2171	3.9	4
6	High-temperature photochemical hole burning and laser-induced hole filling in dye-doped polymer systems. <i>Journal of Chemical Physics</i> , 1991 , 94, 80-85	3.9	35

5	Photochemical hole burning of tetraphenylporphin in epoxy resin: Effect of crosslinked structure. <i>Applied Physics Letters</i> , 1990 , 57, 141-143	3.4	18
4	Low energy excitation modes of amorphous polymers probed by photochemical hole burning. <i>Chemical Physics Letters</i> , 1989 , 161, 227-231	2.5	46
3	Optical memory based on heterodyne-detected accumulated photon echoes. <i>Optics Letters</i> , 1989 , 14, 841-3	3	19
2	Photochemical hole burning of tetraphenylporphin in phenoxy resin at 4.2B0 K. <i>Journal of Applied Physics</i> , 1989 , 66, 6041-6047	2.5	46
1	Low Energy Excitation Modes of Amorphous Polymers and Structural Relaxation at Low Temperatures Probed by PHB. <i>Japanese Journal of Applied Physics</i> , 1989 , 28, 247	1.4	7