Junqiu Liu

List of Publications by Year
in descending order

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95 papers	4,549 citations	136740 32 h-index	182168 51 g-index
99 all docs	99 docs citations	99 times ranked	2403 citing authors

#	Article	IF	Citations
1	Polarization selective ultra-broadband wavelength conversion in silicon nitride waveguides. Optics Express, 2022, 30, 4342.	1.7	7
2	Compact, spatial-mode-interaction-free, ultralow-loss, nonlinear photonic integrated circuits. Communications Physics, 2022, 5, .	2.0	36
3	Platicon microcomb generation using laser self-injection locking. Nature Communications, 2022, 13, 1771.	5.8	39
4	Protected generation of dissipative Kerr solitons in supermodes of coupled optical microresonators. Science Advances, 2022, 8, eabm6982.	4.7	16
5	Low-noise frequency-agile photonic integrated lasers for coherent ranging. Nature Communications, 2022, 13, .	5.8	39
6	Probing material absorption and optical nonlinearity of integrated photonic materials. Nature Communications, 2022, 13, .	5.8	27
7	Dual chirped microcomb based parallel ranging at megapixel-line rates. Nature Communications, 2022, 13, .	5.8	18
8	A photonic integrated circuitâ€“based erbium-doped amplifier. Science, 2022, 376, 1309-1313.	6.0	95
9	Dynamics of soliton self-injection locking in optical microresonators. Nature Communications, 2021, 12, 235.	5.8	86
10	Soliton microcomb based spectral domain optical coherence tomography. Nature Communications, 2021, 12, 427.	5.8	45
11	Parallel convolutional processing using an integrated photonic tensor core. Nature, 2021, 589, 52-58.	13.7	723
12	Emergent nonlinear phenomena in a driven dissipative photonic dimer. Nature Physics, 2021, 17, 604-610.	6.5	57
13	Gain-switched semiconductor laser driven soliton microcombs. Nature Communications, 2021, 12, 1425.	5.8	27
14	Low-Loss Integrated Nanophotonic Circuits with Layered Semiconductor Materials. Nano Letters, 2021, 21, 2709-2718.	4.5	24
15	Difference-frequency generation in optically poled silicon nitride waveguides. Nanophotonics, 2021, 10, 1923-1930.	2.9	7
16	High-yield, wafer-scale fabrication of ultralow-loss, dispersion-engineered silicon nitride photonic circuits. Nature Communications, 2021, 12, 2236.	5.8	157
17	Photonic chip-based resonant supercontinuum via pulse-driven Kerr microresonator solitons. Optica, 2021, 8, 771.	4.8	33
18	Zero-dispersion solitons in microresonators with octave-spanning dispersive wave formation. , 2021, , .		0

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19	Optical Gyrator and Microwave-to-Optical Converter using HBAR modes. , 2021, , .		0
20	Continuous-wave electron-light interaction in high-Q whispering gallery microresonators. , 2021, , .		0
21	Single-pixel massively parallel coherent LiDAR using on dual soliton microcombs. , 2021, , .		0
22	High-yield, wafer-scale fabrication of ultralow-loss, dispersion-engineered silicon nitride photonic circuits. , 2021, , .		1
23	Laser soliton microcombs heterogeneously integrated on silicon. Science, 2021, 373, 99-103.	6.0	173
24	Integrated Magnetic-free Nitride Optical Isolator. , 2021, , .		0
25	Ultra-narrow linewidth lasers and microcombs based on self-injection locking in integrated photonics (Invited). , 2021, , .		0
26	X-Band Aom on Chip. , 2021, , .		1
27	Magnetic-free silicon nitride integrated optical isolator. Nature Photonics, 2021, 15, 828-836.	15.6	67
28	Ultrafast optical circuit switching for data centers using integrated soliton microcombs. Nature Communications, 2021, 12, 5867.	5.8	31
29	Nonlinear Frequency Conversion in the Hybrid Si3N4 - LiNbO3 Integrated Platform. , 2021, , .		0
30	Integrated photonics enables continuous-beam electron phase modulation. Nature, 2021, 600, 653-658.	13.7	74
31	Observation of Stimulated Brillouin Scattering in Silicon Nitride Integrated Waveguides. Physical Review Letters, 2020, 124, 013902.	2.9	67
32	Frequency division using a soliton-injected semiconductor gain-switched frequency comb. Science Advances, 2020, 6, .	4.7	21
33	Monolithic piezoelectric control of soliton microcombs. Nature, 2020, 583, 385-390.	13.7	109
34	Monolithic piezoelectric control of soliton microcombs. , 2020, , .		12
35	Reconfigurable radiofrequency filters based on versatile soliton microcombs. Nature Communications, 2020, 11, 4377.	5.8	38
36	Microresonator soliton based massively parallel coherent LiDAR. , 2020, , .		0

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37	Massively parallel coherent laser ranging using a soliton microcomb. Nature, 2020, 581, 164-170.	13.7	325
38	Integrated turnkey soliton microcombs. Nature, 2020, 582, 365-369.	13.7	295
39	Hybrid integrated photonics using bulk acoustic resonators. Nature Communications, 2020, 11, 3073.	5.8	65
40	Photonic microwave generation in the X- and K-band using integrated soliton microcombs. Nature Photonics, 2020, 14, 486-491.	15.6	229
41	Wafer-scale fabrication of ultralow-loss silicon nitride nonlinear photonic circuits. , 2020, , .		1
42	Hybrid Si3N4-LiNbO3 integrated platform for electro-optic conversion. , 2020, , .		2
43	Laser Self-Injection Locked Frequency Combs in a Normal GVD Integrated Microresonator. , 2020, , .		2
44	Chip-based soliton microcomb module using a hybrid semiconductor laser. Optics Express, 2020, 28, 2714.	1.7	18
45	Nanophotonic supercontinuum-based mid-infrared dual-comb spectroscopy. Optica, 2020, 7, 1181.	4.8	43
46	Broadband quasi-phase-matching in dispersion-engineered all-optically poled silicon nitride waveguides. Photonics Research, 2020, 8, 1475.	3.4	10
47	Spectral multiplexing of dissipative Kerr solitons in a single optical microresonator. , 2020, , .		1
48	Monolithic piezoelectric control of integrated soliton microcombs. , 2020, , .		0
49	Reconfigurable Radiofrequency Photonic Filters Based on Soliton Microcombs. , 2020, , .		0
50	Massively parallel coherent LiDAR using dissipative Kerr solitons. , 2020, , .		0
51	Microresonator Dual-Comb Coherent FMCW LiDAR. , 2020, , .		1
52	Two-soliton Microcombs Enabled Reconfigurable Microwave Photonic Filters. , 2020, , .		0
53	A Nitride Ring Isolator. , 2020, , .		0
54	Frequency Division Using a Soliton-Injected Semiconductor Gain-Switched Frequency Comb. , 2020, , .		0

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55	Observation of stimulated Brillouin scattering in silicon nitride integrated waveguides. , 2020, , .		0
56	Dynamics of Soliton Microcomb Self-Injection Locking in a Silicon Nitride Microresonator. , 2020, , .		1
57	Resonant dissipative Kerr soliton supercontinuum in the normal dispersion regime. , 2020, , .		0
58	Measurement of Frequency Tuning Curves of Soliton Self-Injection Locking to a Nonlinear Microresonator. , 2020, , .		0
59	Thermorefractive noise in silicon-nitride microresonators. Physical Review A, 2019, 99, .	1.0	74
60	Photonic Integrated Microwave Oscillator Based on Silicon Nitride Soliton Microcomb. , 2019, , .		0
61	Dynamics of soliton crystals in optical microresonators. Nature Physics, 2019, 15, 1071-1077.	6.5	148
62	Electrically pumped photonic integrated soliton microcomb. Nature Communications, 2019, 10, 680.	5.8	160
63	Integrated Self-Injection Locked Soliton Microcomb Source. , 2019, , .		0
64	Photonic Chip-Based Soliton Microcomb Driven by a Compact Ultra-Low-Noise Laser. , 2019, , .		0
65	A microphotonic astrocomb. Nature Photonics, 2019, 13, 31-35.	15.6	215
66	Thermally stable access to microresonator solitons via slow pump modulation. Optics Letters, 2019, 44, 4447.	1.7	35
67	Visible-near-middle infrared spanning supercontinuum generation in a silicon nitride (Si₃N₄) waveguide. Optical Materials Express, 2019, 9, 2553.	1.6	23
68	Electrically Driven Ultra-compact Photonic Integrated Soliton Microcomb. , 2019, , .		0
69	Nanophotonic supercontinuum based mid-infrared dual-comb spectroscopy. , 2019, , .		1
70	Broadband Efficient Soliton Microcombs in Pulse-Driven Photonic Microresonators. , 2019, , .		0
71	Advanced dispersion engineering of dispersive waves in Si3N4 microresonators. , 2019, , .		0
72	Ultralow-power chip-based soliton microcombs for photonic integration. , 2019, , .		0

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73	Photonic Integrated K-Band Microwave Oscillator Based on Silicon Nitride Soliton Microcomb. , 2019, , .		0
74	Thermo-refractive noise in silicon nitride microresonators. , 2019, , .		1
75	Integrated Si3N4 Soliton Microcomb Driven by a Compact Ultra-low-noise Laser. , 2019, , .		0
76	Perfect soliton crystals in optical microresonators. , 2019, , .		0
77	Photonic chip-based soliton frequency combs covering the biological imaging window. Nature Communications, 2018, 9, 1146.	5.8	62
78	Ultralow-power chip-based soliton microcombs for photonic integration. Optica, 2018, 5, 1347.	4.8	143
79	Ultralow-Power Photonic Chip-Based Soliton Frequency Combs. , 2018, , .		0
80	Ultra-Low-Power Photonic Chip-Based Soliton Frequency Combs. , 2018, , .		1
81	Photonic Damascene process with reflow step for ultra-smooth Si3N4 waveguides. , 2018, , .		1
82	Photonic Damascene Process for Low-Loss, High-Confinement Silicon Nitride Waveguides. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-11.	1.9	101
83	Highly efficient coupling of crystalline microresonators to integrated photonic waveguides. Optics Letters, 2018, 43, 2106.	1.7	20
84	Double inverse nanotapers for efficient light coupling to integrated photonic devices. Optics Letters, 2018, 43, 3200.	1.7	50
85	Dissipative Kerr solitons in photonic chip-based microresonators. , 2018, , .		0
86	Ultra-smooth silicon nitride waveguides based on the Damascene reflow process: fabrication and loss origins. Optica, 2018, 5, 884.	4.8	147
87	Efficient coupling of ultra-high Q crystalline microresonators to integrated photonic waveguides. , 2018, , .		0
88	Double-inverse tapers for efficient light coupling with arbitrary polarization. , 2018, , .		0
89	Coupling Ideality of Integrated Planar High-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>Microresonators. Physical Review Applied, 2017, 7, .	1.5	57
90	Intermode Breather Solitons in Optical Microresonators. Physical Review X, 2017, 7, .	2.8	30

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91	Octave-spanning dissipative Kerr soliton frequency combs in Si_3N_4 microresonators. Optica, 2017, 4, 684.	4.8	208
92	Soliton breathing induced by avoided mode crossing in optical microresonators. , 2017, , .		0
93	Dispersion Characterization of Microresonators for Broadband Kerr Frequency Comb Generation. , 2017, , .		2
94	Soliton Kerr Frequency Combs with Octave Bandwidth in Integrated Si3N4 Microresonators. , 2017, , .		0
95	Frequency-comb-assisted broadband precision spectroscopy with cascaded diode lasers. Optics Letters, 2016, 41, 3134.	1.7	31