Xingchen Ji

List of Publications by Year
in descending order

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Version: 2024-02-01

106 papers	3,402 citations	186209 28 h-index	302012 39 g-index
107 all docs	107 docs citations	107 times ranked	2708 citing authors

#	Article	IF	Citations
1	Active tuning of dispersive waves in Kerr soliton combs. Optics Letters, 2022, 47, 2234.	1.7	9
2	Exploiting Ultra-Low Loss Silicon Nitride Platform for Various Applications (Invited). , 2022, , .		0
3	Measurements and Modeling of Atomicâ€Scale Sidewall Roughness and Losses in Integrated Photonic Devices. Advanced Optical Materials, 2022, 10, .	3.6	6
4	Exploiting Ultralow Loss Multimode Waveguides for Broadband Frequency Combs. Laser and Photonics Reviews, 2021, 15, .	4.4	64
5	Guiding light at criticality and beyond. , 2021, , .		0
6	Millimeter-Scale Chip-Based Supercontinuum Generation for Optical Coherence Tomography. , 2021, , .		1
7	Photonic-Chip-Based Nonlinear Compression of Picosecond Pulses. , 2021, , .		0
8	Fully Integrated Broad-Band High Power Frequency Comb Based on a Multimode Gain Chip. , 2021, , .		0
9	Synchronization of Normal-GVD Kerr Combs. , 2021, , .		0
10	Error-Free Kerr Comb-Driven SiP Microdisk Transmitter. , 2021, , .		3
11	Broadband Dual-Pumped Normal-GVD Kerr Combs. , 2021, , .		0
12	Narrow Linewidth, Widely Tunable Integrated Lasers from Visible to Near-IR. , 2021, , .		2
13	On demand control of bus-cavity coupling. , 2021, , .		0
14	Parametric sideband generation in CMOS-compatible oscillators from visible to telecom wavelengths. Optica, 2021, 8, 316.	4.8	22
15	Micron-scale, efficient, and robust phase modulators at visible wavelengths. , 2021, , .		1
16	Methods to achieve ultra-high quality factor silicon nitride resonators. APL Photonics, 2021, 6, .	3.0	65
17	Conversion efficiency of soliton Kerr combs. Optics Letters, 2021, 46, 3657.	1.7	35
18	Soliton-effect compression of picosecond pulses on a photonic chip. Optics Letters, 2021, 46, 4706.	1.7	8

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19	Dynamic control of photon lifetime for quantum random number generation. Optica, 2021, 8, 1458.	4.8	8
20	Millimeter-scale chipâ€"based supercontinuum generation for optical coherence tomography. Science Advances, 2021, 7, eabg8869.	4.7	19
21	Quantum Random Number Generation via Dynamically-Controlled Coupled-Resonator-Based Kerr Oscillator. , 2021, , .		0
22	Synchronization of nonsolitonic Kerr combs. Science Advances, 2021, 7, eabi4362.	4.7	23
23	Kerr Comb-Driven Silicon Photonic Transmitter. , 2021, , .		6
24	Robust, efficient, micrometre-scale phase modulators at visible wavelengths. Nature Photonics, 2021, 15, 908-913.	15.6	53
25	Demonstration of chip-based coupled degenerate optical parametric oscillators for realizing a nanophotonic spin-glass. Nature Communications, 2020, 11, 4119.	5.8	60
26	Near-Degenerate Quadrature-Squeezed Vacuum Generation on a Silicon-Nitride Chip. Physical Review Letters, 2020, 124, 193601.	2.9	87
27	Reconfigurable nanophotonic silicon probes for sub-millisecond deep-brain optical stimulation. Nature Biomedical Engineering, 2020, 4, 223-231.	11.6	101
28	Frequency-Domain Quantum Interference with Correlated Photons from an Integrated Microresonator. Physical Review Letters, 2020, 124, 143601.	2.9	41
29	Overcoming the Trade-Off Between Loss and Dispersion in Microresonators. , 2020, , .		3
30	Robust Hybrid III-V/Si3N4 Laser with kHz-Linewidth and GHz-Pulling Range. , 2020, , .		6
31	Performance scaling of a 10-GHz solid-state laser enabling self-referenced CEO frequency detection without amplification. Optics Express, 2020, 28, 12755.	1.7	19
32	Chip-scale blue light phased array. Optics Letters, 2020, 45, 1934.	1.7	93
33	Large-scale optical phased array using a low-power multi-pass silicon photonic platform. Optica, 2020, 7, 3.	4.8	202
34	Visible nonlinear photonics via high-order-mode dispersion engineering. Optica, 2020, 7, 135.	4.8	43
35	Ultra-Low Threshold Broadband Soliton Frequency Comb Generation. , 2020, , .		0
36	On-Chip Squeezed-State Generation via Dual-Pumped Four-Wave Mixing. , 2020, , .		0

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37	Universal Conversion Efficiency Scaling with Free-Spectral-Range for Soliton Kerr Combs. , 2020, , .		2
38	Slaving a Highly Multi-Mode Laser to an On-Chip Single Mode Microresonator. , 2020, , .		0
39	Frequency-Domain Quantum Interference with Entangled Photons from an Integrated Microresonator. , 2020, , .		0
40	On-Chip Synchronization of Kerr Frequency Combs. , 2020, , .		0
41	Photonic Ising Spin-Glass via Chip-Based Degenerate Kerr Oscillators. , 2020, , .		0
42	Robust Miniature Pure-Phase Modulators at ƛ = 488 nm. , 2020, , .		1
43	Microresonator Based Discrete- and Continuous-Variable Quantum Sources on Silicon-Nitride. , 2020, , .		1
44	Frequency-Domain Quantum Interference with Correlated Photons from an Integrated Microresonator. , 2020, , .		1
45	Turn-Key, High-Efficiency Kerr Comb Source. , 2020, , .		0
46	Observation of Arnold Tongues in Coupled Soliton Kerr Frequency Combs. Physical Review Letters, 2019, 123, 153901.	2.9	26
47	On-chip tunable photonic delay line. APL Photonics, 2019, 4, 090803.	3.0	35
48	Strong Nonlinear Coupling in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Si</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mm mathvariant="normal">N</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub></mml:mrow></mml: Ring Resonator. Physical Review Letters, 2019, 122, 153906.	2.9	32
49	High Quality Factor PECVD Si3N4 Ring Resonators Compatible with CMOS Process. , 2019, , .		3
50	Tightly locked optical frequency comb from a semiconductor disk laser. Optics Express, 2019, 27, 1786.	1.7	28
51	Chip-based frequency comb sources for optical coherence tomography. Optics Express, 2019, 27, 19896.	1.7	34
52	Turn-key, high-efficiency Kerr comb source. Optics Letters, 2019, 44, 4475.	1.7	104
53	Chip-scale Blue Phased Array. , 2019, , .		1
54	On-Chip Photon-Pair Generation in the Near-Visible. , 2019, , .		0

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55	Coupled Degenerate Parametric Oscillators Towards Photonic Coherent Ising Machine. , 2019, , .		1
56	Near-Visible Microresonator-Based Soliton Combs. , 2019, , .		1
57	Long-Term Stabilization and Operation of a Soliton Micro-Comb for 9-Days. , 2019, , .		0
58	Micron-scale, Efficient, Robust Phase Modulators in the Visible. , 2019, , .		2
59	Sub-Harmonic Synchronization of Kerr Frequency Combs. , 2019, , .		0
60	Broadband High-Resolution Scanning of Soliton Micro-Combs. , 2019, , .		2
61	Silicon-Chip-Based f-2f Interferometer. , 2019, , .		0
62	Scalable low-power silicon photonic platform for all-solid-state beam steering. , 2019, , .		1
63	On-chip dual-comb source for spectroscopy. Science Advances, 2018, 4, e1701858.	4.7	256
64	Silicon Photonics Integration for Future Generation Optical Network. , 2018, , .		4
65	Synchronization of coupled optical microresonators. Nature Photonics, 2018, 12, 688-693.	15.6	89
66	Battery-operated integrated frequency comb generator. Nature, 2018, 562, 401-405.	13.7	453
67	Carrier envelope offset detection via simultaneous supercontinuum and second-harmonic generation in a silicon nitride waveguide. Optics Letters, 2018, 43, 4627.	1.7	40
68	Counter-rotating cavity solitons in a silicon nitride microresonator. Optics Letters, 2018, 43, 547.	1.7	38
69	Gas-Phase Microresonator-Based Comb Spectroscopy without an External Pump Laser. ACS Photonics, 2018, 5, 2780-2785.	3.2	23
70	An Active Visible Nanophotonics Platform for Sub-Millisecond Deep Brain Neural Stimulation. , 2018, , .		1
71	512-Element Actively Steered Silicon Phased Array for Low-Power LIDAR. , 2018, , .		37
72	Fully Integrated Chip Platform for Electrically Pumped Frequency Comb Generation. , 2018, , .		2

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73	Dual-Cavity Scanning Comb Spectroscopy. , 2018, , .		0
74	Fully Stabilized Optical Frequency Comb from a Semiconductor Disk Laser. , 2018, , .		0
75	Coherent Directional Supercontinuum Generation. , 2018, , .		0
76	Synchronization of microresonator optical frequency combs. , 2018, , .		0
77	Chip-Based Frequency Combs for High-Resolution Optical Coherence Tomography. , 2018, , .		0
78	Compact narrow-linewidth integrated laser based on low-loss silicon nitride ring resonator. , 2018, , .		2
79	Synchronization of coupled microresonator frequency combs. , 2018, , .		1
80	Silicon nitride waveguide enables self-referenced frequency comb from a semiconductor disk laser. , 2018, , .		1
81	Characterization of Ultra-High-Q Si3N4 Micro-Ring Resonators with High-Precision Temperature Control. , 2018, , .		1
82	Breather soliton dynamics in microresonators. Nature Communications, 2017, 8, 14569.	5.8	122
83	Ultra-low-loss on-chip resonators with sub-milliwatt parametric oscillation threshold. Optica, 2017, 4, 619.	4.8	370
84	Low-loss silicon platform for broadband mid-infrared photonics. Optica, 2017, 4, 707.	4.8	148
85	Self-referenced CEO Frequency Detection of a Semiconductor Disk Laser using a Silicon Nitride Waveguide. , 2017, , .		1
86	Coherent Supercontinuum Generation with Picosecond Pulses. , 2017, , .		1
87	Compact narrow-linewidth integrated laser based on a low-loss silicon nitride ring resonator. Optics Letters, 2017, 42, 4541.	1.7	115
88	Coherent, directional supercontinuum generation. Optics Letters, 2017, 42, 4466.	1.7	32
89	Sidewall Roughness in Si3N4 Waveguides Directly Measured by Atomic Force Microscopy. , 2017, , .		2
90	Dual-comb Spectroscopy using On-chip Mode-locked Frequency Combs. , 2017, , .		2

#	Article	IF	Citations
91	Broadband Frequency Comb Generation in the Near-Visible using Higher-Order Modes in Silicon Nitride Microresonators. , 2017, , .		2
92	Silicon Photonics as a Broadband Platform for Parametric Oscillation in the Mid-Infrared. , 2017, , .		0
93	Counter-Propagating Solitons in Microresonators. , 2017, , .		0
94	Large Effective Ï‡(2) Nonlinearity via Coherent Photon Conversion on a Si3N4 Chip. , 2017, , .		1
95	Rb-Compatible Silicon-Based Correlated Photon Source. , 2017, , .		0
96	High Confinement and Low Loss Si3N4 Waveguides for Miniaturizing Optical Coherence Tomography. , 2017, , .		0
97	Dynamics of mode-coupling-induced microresonator frequency combs in normal dispersion. Optics Express, 2016, 24, 28794.	1.7	47
98	Thermally controlled comb generation and soliton modelocking in microresonators. Optics Letters, 2016, 41, 2565.	1.7	295
99	Breather Solitons in Microresonators. , 2016, , .		0
100	Dynamics of Mode-Coupling-Assisted Microresonator Frequency Combs. , 2016, , .		0
101	Generation of Dual Frequency Combs using Cascaded Microring Resonators. , 2016, , .		0
102	High Quality Factor Si3N4 Ring Resonators Achieved by Surface Roughness Reduction. , 2016, , .		0
103	Thermally-Controlled Single-Soliton Modelocking in Silicon Nitride Microresonators. , 2016, , .		0
104	Observation of Breather Solitons in Microresonators. , 2016, , .		1
105	Stability of Modelocked Microresonator Frequency Combs. , 2016, , .		0
106	Modeling and simulation of bulk heterojunction polymer solar cells. Solar Energy Materials and Solar Cells, 2014, 127, 67-86.	3.0	60