

Scott B Papp

List of Publications by Year in descending order

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Version: 2024-02-01

76
papers

4,806
citations

101384

36
h-index

102304

66
g-index

77
all docs

77
docs citations

77
times ranked

2612
citing authors

#	ARTICLE	IF	CITATIONS
1	An optical-frequency synthesizer using integrated photonics. <i>Nature</i> , 2018, 557, 81-85.	13.7	550
2	Microresonator frequency comb optical clock. <i>Optica</i> , 2014, 1, 10.	4.8	367
3	Architecture for the photonic integration of an optical atomic clock. <i>Optica</i> , 2019, 6, 680.	4.8	346
4	Soliton crystals in Kerr resonators. <i>Nature Photonics</i> , 2017, 11, 671-676.	15.6	300
5	Stably accessing octave-spanning microresonator frequency combs in the soliton regime. <i>Optica</i> , 2017, 4, 193.	4.8	235
6	Searching for exoplanets using a microresonator astrocomb. <i>Nature Photonics</i> , 2019, 13, 25-30.	15.6	194
7	Molecular fingerprinting with bright, broadband infrared frequency combs. <i>Optica</i> , 2018, 5, 727.	4.8	160
8	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. <i>Nature Communications</i> , 2020, 11, 1331.	5.8	151
9	Thermal and Nonlinear Dissipative-Soliton Dynamics in Kerr-Microresonator Frequency Combs. <i>Physical Review Letters</i> , 2018, 121, 063902.	2.9	133
10	Electronic synthesis of light. <i>Optica</i> , 2017, 4, 406.	4.8	115
11	Ultrafast electro-optic light with subcycle control. <i>Science</i> , 2018, 361, 1358-1363.	6.0	114
12	Dual-microcavity narrow-linewidth Brillouin laser. <i>Optica</i> , 2015, 2, 225.	4.8	96
13	Ultrabroadband Supercontinuum Generation and Frequency-Comb Stabilization Using On-Chip Waveguides with Both Cubic and Quadratic Nonlinearities. <i>Physical Review Applied</i> , 2017, 8, .	1.5	90
14	Stellar spectroscopy in the near-infrared with a laser frequency comb. <i>Optica</i> , 2019, 6, 233.	4.8	86
15	Efficient telecom-to-visible spectral translation through ultralow power nonlinear nanophotonics. <i>Nature Photonics</i> , 2019, 13, 593-601.	15.6	82
16	Self-referenced frequency combs using high-efficiency silicon-nitride waveguides. <i>Optics Letters</i> , 2017, 42, 2314.	1.7	80
17	Laser-machined ultra-high-Q microrod resonators for nonlinear optics. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	74
18	Heterogeneously Integrated GaAs Waveguides on Insulator for Efficient Frequency Conversion. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800149.	4.4	73

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19	Tantala Kerr nonlinear integrated photonics. <i>Optica</i> , 2021, 8, 811.	4.8	68
20	Strong frequency conversion in heterogeneously integrated GaAs resonators. <i>APL Photonics</i> , 2019, 4, 036103.	3.0	63
21	Spontaneous pulse formation in edgeless photonic crystal resonators. <i>Nature Photonics</i> , 2021, 15, 461-467.	15.6	61
22	Optical-Frequency Measurements with a Kerr Microcomb and Photonic-Chip Supercontinuum. <i>Physical Review Applied</i> , 2018, 9, .	1.5	60
23	Self-organized nonlinear gratings for ultrafast nanophotonics. <i>Nature Photonics</i> , 2019, 13, 494-499.	15.6	60
24	Interlocking Kerr-microresonator frequency combs for microwave to optical synthesis. <i>Optics Letters</i> , 2018, 43, 2933.	1.7	59
25	Thermal decoherence and laser cooling of Kerr microresonator solitons. <i>Nature Photonics</i> , 2020, 14, 480-485.	15.6	56
26	Kerr-microresonator solitons from a chirped background. <i>Optica</i> , 2018, 5, 1304.	4.8	52
27	Terahertz-Rate Kerr-Microresonator Optical Clockwork. <i>Physical Review X</i> , 2019, 9, .	2.8	49
28	Direct Kerr frequency comb atomic spectroscopy and stabilization. <i>Science Advances</i> , 2020, 6, eaax6230.	4.7	49
29	Broadband resonator-waveguide coupling for efficient extraction of octave-spanning microcombs. <i>Optics Letters</i> , 2019, 44, 4737.	1.7	49
30	Mechanical Control of a Microrod-Resonator Optical Frequency Comb. <i>Physical Review X</i> , 2013, 3, .	2.8	48
31	High-harmonic generation in periodically poled waveguides. <i>Optica</i> , 2017, 4, 1538.	4.8	48
32	Milliwatt-threshold visible-telecom optical parametric oscillation using silicon nanophotonics. <i>Optica</i> , 2019, 6, 1535.	4.8	44
33	Tuning Kerr-Soliton Frequency Combs to Atomic Resonances. <i>Physical Review Applied</i> , 2019, 11, .	1.5	42
34	Deuterated silicon nitride photonic devices for broadband optical frequency comb generation. <i>Optics Letters</i> , 2018, 43, 1527.	1.7	40
35	Photonic-Chip Supercontinuum with Tailored Spectra for Counting Optical Frequencies. <i>Physical Review Applied</i> , 2017, 8, .	1.5	40
36	Kerr-Microresonator Soliton Frequency Combs at Cryogenic Temperatures. <i>Physical Review Applied</i> , 2019, 12, .	1.5	37

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37	Ultranarrow Linewidth Photonic-Atomic Laser. <i>Laser and Photonics Reviews</i> , 2020, 14, 1900293.	4.4	37
38	Theory of Kerr frequency combs in Fabry-Perot resonators. <i>Physical Review A</i> , 2018, 98, .	1.0	36
39	Quasi-Phase-Matched Supercontinuum Generation in Photonic Waveguides. <i>Physical Review Letters</i> , 2018, 120, 053903.	2.9	34
40	Generating few-cycle pulses with integrated nonlinear photonics. <i>Optics Express</i> , 2019, 27, 37374.	1.7	34
41	Subharmonic Entrainment of Kerr Breather Solitons. <i>Physical Review Letters</i> , 2019, 123, 173904.	2.9	30
42	30-THz electro-optic frequency comb spanning 300-THz in the near infrared and visible. <i>Optics Letters</i> , 2019, 44, 2673.	1.7	30
43	36-Hz integral linewidth laser based on a photonic integrated 4.0- μ m coil resonator. <i>Optica</i> , 2021, 8, 770.	2.9	29
44	Optically synchronized fibre links using spectrally pure chip-scale lasers. <i>Nature Photonics</i> , 2021, 15, 588-593.	15.6	28
45	A continuum of bright and dark-pulse states in a photonic-crystal resonator. <i>Nature Communications</i> , 2022, 13, .	5.8	28
46	Probing material absorption and optical nonlinearity of integrated photonic materials. <i>Nature Communications</i> , 2022, 13, .	5.8	27
47	A microrod-resonator Brillouin laser with 240 Hz absolute linewidth. <i>New Journal of Physics</i> , 2016, 18, 045001.	1.2	25
48	Generating Octave-Bandwidth Soliton Frequency Combs with Compact Low-Power Semiconductor Lasers. <i>Physical Review Applied</i> , 2020, 14, .	1.5	25
49	Mid-infrared frequency combs at 10-THz. <i>Optics Letters</i> , 2020, 45, 3677.	1.7	24
50	Towards integrated photonic interposers for processing octave-spanning microresonator frequency combs. <i>Light: Science and Applications</i> , 2021, 10, 109.	7.7	22
51	Harnessing Dispersion in Soliton Microcombs to Mitigate Thermal Noise. <i>Physical Review Letters</i> , 2020, 125, 153901.	2.9	21
52	Frequency-Stabilized Links for Coherent WDM Fiber Interconnects in the Datacenter. <i>Journal of Lightwave Technology</i> , 2020, 38, 3376-3386.	2.7	21
53	Hybrid InP and SiN integration of an octave-spanning frequency comb. <i>APL Photonics</i> , 2021, 6, .	3.0	20
54	Nanophotonic tantalum waveguides for supercontinuum generation pumped at 1560-nm. <i>Optics Letters</i> , 2020, 45, 4192.	1.7	19

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55	Integrated reference cavity with dual-mode optical thermometry for frequency correction. <i>Optica</i> , 2021, 8, 1481.	4.8	19
56	Group-velocity-dispersion engineering of tantala integrated photonics. <i>Optics Letters</i> , 2021, 46, 817.	1.7	17
57	Dual-comb spectroscopy with tailored spectral broadening in Si ₃ N ₄ nanophotonics. <i>Optics Express</i> , 2019, 27, 11869.	1.7	17
58	Ultra-precise optical-frequency stabilization with heterogeneous III-V/Si lasers. <i>Optics Letters</i> , 2020, 45, 5275.	1.7	16
59	Low loss (Al)GaAs on an insulator waveguide platform. <i>Optics Letters</i> , 2019, 44, 4075.	1.7	16
60	Microresonator Brillouin laser stabilization using a microfabricated rubidium cell. <i>Optics Express</i> , 2016, 24, 14513.	1.7	14
61	Broadband, electro-optic, dual-comb spectrometer for linear and nonlinear measurements. <i>Optics Express</i> , 2020, 28, 29148.	1.7	11
62	Microrod Optical Frequency Reference in the Ambient Environment. <i>Physical Review Applied</i> , 2019, 12, .	1.5	9
63	Kerr Solitons with Tantala Ring Resonators. , 2019, , .		7
64	Photonic crystal resonators for inverse-designed multi-dimensional optical interconnects. <i>Optics Letters</i> , 2022, 47, 3063.	1.7	7
65	Synchronization of Electro-Optically Modulated Kerr Soliton to a Chip-Scale Mode-Locked Laser PIC via Regenerative Harmonic Injection Locking. <i>Journal of Lightwave Technology</i> , 2022, 40, 1742-1748.	2.7	3
66	Self-organized nonlinear gratings for ultrafast nanophotonics. , 2018, , .		2
67	Probing the Material Loss and Optical Nonlinearity of Integrated Photonic Materials. , 2021, , .		1
68	Laser Frequency Drift Stabilization using an Integrated Dual-Mode Locking Si ₃ N ₄ Waveguide Reference Cavity. , 2021, , .		1
69	Optical synthesis by spectral translation. , 2020, , .		1
70	Kerr Microresonator Soliton Frequency Combs at Cryogenic Temperatures. <i>Physical Review Applied</i> , 2019, 12, .	1.5	1
71	30 GHz Supercontinuum Generation for Astronomy with Efficient SiN Waveguides. , 2019, , .		0
72	Few-cycle pulses and ultraflat supercontinuum with silicon-nitride waveguides. , 2019, , .		0

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73	Efficient widely-separated optical parametric oscillation. , 2020, , .		0
74	Degenerate four-wave mixing in photonic crystal resonators. , 2020, , .		0
75	Integrated photonic four-wave-mixing optical synthesizer. , 2021, , .		0
76	Narrow Linewidth Lasers for Low-Energy Coherent Communications. , 2022, , .		0