Scott B Papp

List of Publications by Year
in descending order

76 papers	4,806 citations	101543 36 h-index	102487 66 g-index
77 all docs	77 docs citations	77 times ranked	2612 citing authors

#	Article	IF	Citations
1	Synchronization of Electro-Optically Modulated Kerr Soliton to a Chip-Scale Mode-Locked Laser PIC via Regenerative Harmonic Injection Locking. Journal of Lightwave Technology, 2022, 40, 1742-1748.	4.6	3
2	Narrow Linewidth Lasers for Low-Energy Coherent Communications. , 2022, , .		0
3	Photonic crystal resonators for inverse-designed multi-dimensional optical interconnects. Optics Letters, 2022, 47, 3063.	3.3	7
4	A continuum of bright and dark-pulse states in a photonic-crystal resonator. Nature Communications, 2022, 13, .	12.8	28
5	Probing material absorption and optical nonlinearity of integrated photonic materials. Nature Communications, 2022, 13, .	12.8	27
6	36â€‰â€‰Hz integral linewidth laser based on a photonic integrated 4.0â€‰â€‰m coil resonator. Optica, 2022, 9, 770.	2.9	29
7	Probing the Material Loss and Optical Nonlinearity of Integrated Photonic Materials. , 2021, , .		1
8	Hybrid InP and SiN integration of an octave-spanning frequency comb. APL Photonics, 2021, 6, .	5.7	20
9	Group-velocity-dispersion engineering of tantala integrated photonics. Optics Letters, 2021, 46, 817.	3.3	17
10	Spontaneous pulse formation in edgeless photonic crystal resonators. Nature Photonics, 2021, 15, 461-467.	31.4	61
11	Towards integrated photonic interposers for processing octave-spanning microresonator frequency combs. Light: Science and Applications, 2021, 10, 109.	16.6	22
12	Tantala Kerr nonlinear integrated photonics. Optica, 2021, 8, 811.	9.3	68
13	Optically synchronized fibre links using spectrally pure chip-scale lasers. Nature Photonics, 2021, 15, 588-593.	31.4	28
14	Laser Frequency Drift Stabilization using an Integrated Dual-Mode Locking Si3N4 Waveguide Reference Cavity. , 2021, , .		1
15	Integrated reference cavity with dual-mode optical thermometry for frequency correction. Optica, 2021, 8, 1481.	9.3	19
16	Integrated photonic four-wave-mixing optical synthesizer. , 2021, , .		0
17	Harnessing Dispersion in Soliton Microcombs to Mitigate Thermal Noise. Physical Review Letters, 2020, 125, 153901.	7.8	21
18	Thermal decoherence and laser cooling of Kerr microresonator solitons. Nature Photonics, 2020, 14, 480-485.	31.4	56

#	Article	IF	Citations
19	Direct Kerr frequency comb atomic spectroscopy and stabilization. Science Advances, 2020, 6, eaax6230.	10.3	49
20	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. Nature Communications, 2020, 11, 1331.	12.8	151
21	Generating Octave-Bandwidth Soliton Frequency Combs with Compact Low-Power Semiconductor Lasers. Physical Review Applied, 2020, 14, .	3.8	25
22	Ultranarrow Linewidth Photonicâ€Atomic Laser. Laser and Photonics Reviews, 2020, 14, 1900293.	8.7	37
23	Frequency-Stabilized Links for Coherent WDM Fiber Interconnects in the Datacenter. Journal of Lightwave Technology, 2020, 38, 3376-3386.	4.6	21
24	Broadband, electro-optic, dual-comb spectrometer for linear and nonlinear measurements. Optics Express, 2020, 28, 29148.	3.4	11
25	Mid-infrared frequency combs at 10â€‰â€‰GHz. Optics Letters, 2020, 45, 3677.	3.3	24
26	Nanophotonic tantala waveguides for supercontinuum generation pumped at 1560â€‰â€‰nm. Optics Letters, 2020, 45, 4192.	3.3	19
27	Ultra-precise optical-frequency stabilization with heterogeneous IIIâ€“V/Si lasers. Optics Letters, 2020, 45, 5275.	3.3	16
28	Optical synthesis by spectral translation. , 2020, , .		1
29	Efficient widely-separated optical parametric oscillation. , 2020, , .		0
30	Degenerate four-wave mixing in photonic crystal resonators. , 2020, , .		0
31	Microrod Optical Frequency Reference in the Ambient Environment. Physical Review Applied, 2019, 12, .	3.8	9
32	Terahertz-Rate Kerr-Microresonator Optical Clockwork. Physical Review X, 2019, 9, .	8.9	49
33	Subharmonic Entrainment of Kerr Breather Solitons. Physical Review Letters, 2019, 123, 173904.	7.8	30
34	Kerr-Microresonator Soliton Frequency Combs at Cryogenic Temperatures. Physical Review Applied, 2019, 12, .	3.8	37
35	Efficient telecom-to-visible spectral translation through ultralow power nonlinear nanophotonics. Nature Photonics, 2019, 13, 593-601.	31.4	82
36	Self-organized nonlinear gratings for ultrafast nanophotonics. Nature Photonics, 2019, 13, 494-499.	31.4	60

#	Article	IF	Citations
37	Tuning Kerr-Soliton Frequency Combs to Atomic Resonances. Physical Review Applied, 2019, 11, .	3.8	42
38	Strong frequency conversion in heterogeneously integrated GaAs resonators. APL Photonics, 2019, 4, 036103.	5.7	63
39	Searching for exoplanets using a microresonator astrocomb. Nature Photonics, 2019, 13, 25-30.	31.4	194
40	Kerr Solitons with Tantala Ring Resonators. , 2019, , .		7
41	Dual-comb spectroscopy with tailored spectral broadening in Si₃N₄ nanophotonics. Optics Express, 2019, 27, 11869.	3.4	17
42	Generating few-cycle pulses with integrated nonlinear photonics. Optics Express, 2019, 27, 37374.	3.4	34
43	30â€‰â€‰GHz electro-optic frequency comb spanning 300â€‰â€‰THz in the near infrared and visible. Optics Letters, 2019, 44, 2673.	3.3	30
44	Low loss (Al)GaAs on an insulator waveguide platform. Optics Letters, 2019, 44, 4075.	3.3	16
45	Broadband resonator-waveguide coupling for efficient extraction of octave-spanning microcombs. Optics Letters, 2019, 44, 4737.	3.3	49
46	Stellar spectroscopy in the near-infrared with a laser frequency comb. Optica, 2019, 6, 233.	9.3	86
47	Architecture for the photonic integration of an optical atomic clock. Optica, 2019, 6, 680.	9.3	346
48	Milliwatt-threshold visibleâ€“telecom optical parametric oscillation using silicon nanophotonics. Optica, 2019, 6, 1535.	9.3	44
49	30 GHz Supercontinuum Generation for Astronomy with Efficient SiN Waveguides. , 2019, , .		0
50	Few-cycle pulses and ultraflat supercontinuum with silicon-nitride waveguides. , 2019, , .		0
51	Kerr Microresonator Soliton Frequency Combs at Cryogenic Temperatures. Physical Review Applied, 2019, 12, .	3.8	1
52	Optical-Frequency Measurements with a Kerr Microcomb and Photonic-Chip Supercontinuum. Physical Review Applied, 2018, 9, .	3.8	60
53	An optical-frequency synthesizer using integrated photonics. Nature, 2018, 557, 81-85.	27.8	550
54	Quasi-Phase-Matched Supercontinuum Generation in Photonic Waveguides. Physical Review Letters, 2018, 120, 053903.	7.8	34

#	Article	IF	Citations
55	Ultrafast electro-optic light with subcycle control. Science, 2018, 361, 1358-1363.	12.6	114
56	Deuterated silicon nitride photonic devices for broadband optical frequency comb generation. Optics Letters, 2018, 43, 1527.	3.3	40
57	Molecular fingerprinting with bright, broadband infrared frequency combs. Optica, 2018, 5, 727.	9.3	160
58	Interlocking Kerr-microresonator frequency combs for microwave to optical synthesis. Optics Letters, 2018, 43, 2933.	3.3	59
59	Theory of Kerr frequency combs in Fabry-Perot resonators. Physical Review A, 2018, 98, .	2.5	36
60	Heterogeneously Integrated GaAs Waveguides on Insulator for Efficient Frequency Conversion. Laser and Photonics Reviews, 2018, 12, 1800149.	8.7	73
61	Thermal and Nonlinear Dissipative-Soliton Dynamics in Kerr-Microresonator Frequency Combs. Physical Review Letters, 2018, 121, 063902.	7.8	133
62	Self-organized nonlinear gratings for ultrafast nanophotonics. , 2018, , .		2
63	Kerr-microresonator solitons from a chirped background. Optica, 2018, 5, 1304.	9.3	52
64	Soliton crystals in Kerr resonators. Nature Photonics, 2017, 11, 671-676.	31.4	300
65	Ultrabroadband Supercontinuum Generation and Frequency-Comb Stabilization Using On-Chip Waveguides with Both Cubic and Quadratic Nonlinearities. Physical Review Applied, 2017, 8, .	3.8	90
66	Stably accessing octave-spanning microresonator frequency combs in the soliton regime. Optica, 2017, 4, 193.	9.3	235
67	Electronic synthesis of light. Optica, 2017, 4, 406.	9.3	115
68	High-harmonic generation in periodically poled waveguides. Optica, 2017, 4, 1538.	9.3	48
69	Self-referenced frequency combs using high-efficiency silicon-nitride waveguides. Optics Letters, 2017, 42, 2314.	3.3	80
70	Photonic-Chip Supercontinuum with Tailored Spectra for Counting Optical Frequencies. Physical Review Applied, 2017, 8, .	3.8	40
71	Microresonator Brillouin laser stabilization using a microfabricated rubidium cell. Optics Express, 2016, 24, 14513.	3.4	14
72	A microrod-resonator Brillouin laser with 240 Hz absolute linewidth. New Journal of Physics, 2016, 18, 045001.	2.9	25

#	Article	IF	Citations
73	Dual-microcavity narrow-linewidth Brillouin laser. Optica, 2015, 2, 225.	9.3	96
74	Microresonator frequency comb optical clock. Optica, 2014, 1, 10.	9.3	367
75	Laser-machined ultra-high-Q microrod resonators for nonlinear optics. Applied Physics Letters, 2013, 102, .	3.3	74
76	Mechanical Control of a Microrod-Resonator Optical Frequency Comb. Physical Review X, 2013, 3, .	8.9	48