# 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 | An optical-frequency synthesizer using integrated photonics. Nature, 2018, 557, 81-85. | 27.8 | 550 |
| 2 | Microresonator frequency comb optical clock. Optica, 2014, 1, 10. | 9.3 | 367 |
| 3 | Architecture for the photonic integration of an optical atomic clock. Optica, 2019, 6, 680. | 9.3 | 346 |
| 4 | Soliton crystals in Kerr resonators. Nature Photonics, 2017, 11, 671-676. | 31.4 | 300 |
| 5 | Stably accessing octave-spanning microresonator frequency combs in the soliton regime. Optica, 2017, 4, 193. | 9.3 | 235 |
| 6 | Searching for exoplanets using a microresonator astrocomb. Nature Photonics, 2019, 13, 25-30. | 31.4 | 194 |
| 7 | Molecular fingerprinting with bright, broadband infrared frequency combs. Optica, 2018, 5, 727. | 9.3 | 160 |
| 8 | Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. Nature Communications, 2020, 11, 1331. | 12.8 | 151 |
| 9 | Thermal and Nonlinear Dissipative-Soliton Dynamics in Kerr-Microresonator Frequency Combs. Physical Review Letters, 2018, 121, 063902. | 7.8 | 133 |
| 10 | Electronic synthesis of light. Optica, 2017, 4, 406. | 9.3 | 115 |
| 11 | Ultrafast electro-optic light with subcycle control. Science, 2018, 361, 1358-1363. | 12.6 | 114 |
| 12 | Dual-microcavity narrow-linewidth Brillouin laser. Optica, 2015, 2, 225. | 9.3 | 96 |
| 13 | 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 |
| 14 | Stellar spectroscopy in the near-infrared with a laser frequency comb. Optica, 2019, 6, 233. | 9.3 | 86 |
| 15 | Efficient telecom-to-visible spectral translation through ultralow power nonlinear nanophotonics. Nature Photonics, 2019, 13, 593-601. | 31.4 | 82 |
| 16 | Self-referenced frequency combs using high-efficiency silicon-nitride waveguides. Optics Letters, 2017, 42, 2314. | 3.3 | 80 |
| 17 | Laser-machined ultra-high-Q microrod resonators for nonlinear optics. Applied Physics Letters, 2013, 102, . | 3.3 | 74 |
| 18 | Heterogeneously Integrated GaAs Waveguides on Insulator for Efficient Frequency Conversion. Laser and Photonics Reviews, 2018, 12, 1800149. | 8.7 | 73 |

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|---|---|---|---|
| 19 | Tantala Kerr nonlinear integrated photonics. Optica, 2021, 8, 811. | 9.3 | 68 |
| 20 | Strong frequency conversion in heterogeneously integrated GaAs resonators. APL Photonics, 2019, 4, 036103. | 5.7 | 63 |
| 21 | Spontaneous pulse formation in edgeless photonic crystal resonators. Nature Photonics, 2021, 15, 461-467. | 31.4 | 61 |
| 22 | Optical-Frequency Measurements with a Kerr Microcomb and Photonic-Chip Supercontinuum. Physical Review Applied, 2018, 9, . | 3.8 | 60 |
| 23 | Self-organized nonlinear gratings for ultrafast nanophotonics. Nature Photonics, 2019, 13, 494-499. | 31.4 | 60 |
| 24 | Interlocking Kerr-microresonator frequency combs for microwave to optical synthesis. Optics Letters, 2018, 43, 2933. | 3.3 | 59 |
| 25 | Thermal decoherence and laser cooling of Kerr microresonator solitons. Nature Photonics, 2020, 14, 480-485. | 31.4 | 56 |
| 26 | Kerr-microresonator solitons from a chirped background. Optica, 2018, 5, 1304. | 9.3 | 52 |
| 27 | Terahertz-Rate Kerr-Microresonator Optical Clockwork. Physical Review X, 2019, 9, . | 8.9 | 49 |
| 28 | Direct Kerr frequency comb atomic spectroscopy and stabilization. Science Advances, 2020, 6, eaax6230. | 10.3 | 49 |
| 29 | Broadband resonator-waveguide coupling for efficient extraction of octave-spanning microcombs. Optics Letters, 2019, 44, 4737. | 3.3 | 49 |
| 30 | Mechanical Control of a Microrod-Resonator Optical Frequency Comb. Physical Review X, 2013, 3, . | 8.9 | 48 |
| 31 | High-harmonic generation in periodically poled waveguides. Optica, 2017, 4, 1538. | 9.3 | 48 |
| 32 | Milliwatt-threshold visibleâ€“telecom optical parametric oscillation using silicon nanophotonics. Optica, 2019, 6, 1535. | 9.3 | 44 |
| 33 | Tuning Kerr-Soliton Frequency Combs to Atomic Resonances. Physical Review Applied, 2019, 11, . | 3.8 | 42 |
| 34 | Deuterated silicon nitride photonic devices for broadband optical frequency comb generation. Optics Letters, 2018, 43, 1527. | 3.3 | 40 |
| 35 | Photonic-Chip Supercontinuum with Tailored Spectra for Counting Optical Frequencies. Physical Review Applied, 2017, 8, . | 3.8 | 40 |
| 36 | Kerr-Microresonator Soliton Frequency Combs at Cryogenic Temperatures. Physical Review Applied, 2019, 12, . | 3.8 | 37 |

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|---|---|---|---|
| 37 | Ultranarrow Linewidth Photonicâ€Atomic Laser. Laser and Photonics Reviews, 2020, 14, 1900293. | 8.7 | 37 |
| 38 | Theory of Kerr frequency combs in Fabry-Perot resonators. Physical Review A, 2018, 98, . | 2.5 | 36 |
| 39 | Quasi-Phase-Matched Supercontinuum Generation in Photonic Waveguides. Physical Review Letters, 2018, 120, 053903. | 7.8 | 34 |
| 40 | Generating few-cycle pulses with integrated nonlinear photonics. Optics Express, 2019, 27, 37374. | 3.4 | 34 |
| 41 | Subharmonic Entrainment of Kerr Breather Solitons. Physical Review Letters, 2019, 123, 173904. | 7.8 | 30 |
| 42 | 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 |
| 43 | 36â€‰â€‰Hz integral linewidth laser based on a photonic integrated 4.0â€‰â€‰m coil resonator. Optica, 2022, 9, 770. | 2.9 | 29 |
| 44 | Optically synchronized fibre links using spectrally pure chip-scale lasers. Nature Photonics, 2021, 15, 588-593. | 31.4 | 28 |
| 45 | A continuum of bright and dark-pulse states in a photonic-crystal resonator. Nature Communications, 2022, 13, . | 12.8 | 28 |
| 46 | Probing material absorption and optical nonlinearity of integrated photonic materials. Nature Communications, 2022, 13, . | 12.8 | 27 |
| 47 | A microrod-resonator Brillouin laser with 240 Hz absolute linewidth. New Journal of Physics, 2016, 18, 045001. | 2.9 | 25 |
| 48 | Generating Octave-Bandwidth Soliton Frequency Combs with Compact Low-Power Semiconductor Lasers. Physical Review Applied, 2020, 14, . | 3.8 | 25 |
| 49 | Mid-infrared frequency combs at 10â€‰â€‰GHz. Optics Letters, 2020, 45, 3677. | 3.3 | 24 |
| 50 | Towards integrated photonic interposers for processing octave-spanning microresonator frequency combs. Light: Science and Applications, 2021, 10, 109. | 16.6 | 22 |
| 51 | Harnessing Dispersion in Soliton Microcombs to Mitigate Thermal Noise. Physical Review Letters, 2020, 125, 153901. | 7.8 | 21 |
| 52 | Frequency-Stabilized Links for Coherent WDM Fiber Interconnects in the Datacenter. Journal of Lightwave Technology, 2020, 38, 3376-3386. | 4.6 | 21 |
| 53 | Hybrid InP and SiN integration of an octave-spanning frequency comb. APL Photonics, 2021, 6, . | 5.7 | 20 |
| 54 | Nanophotonic tantala waveguides for supercontinuum generation pumped at 1560â€‰â€‰nm. Optics Letters, 2020, 45, 4192. | 3.3 | 19 |

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|---|---|---|---|
| 55 | Integrated reference cavity with dual-mode optical thermometry for frequency correction. Optica, 2021, 8, 1481. | 9.3 | 19 |
| 56 | Group-velocity-dispersion engineering of tantala integrated photonics. Optics Letters, 2021, 46, 817. | 3.3 | 17 |
| 57 | Dual-comb spectroscopy with tailored spectral broadening in Si<sub>3</sub>N<sub>4</sub> nanophotonics. Optics Express, 2019, 27, 11869. | 3.4 | 17 |
| 58 | Ultra-precise optical-frequency stabilization with heterogeneous IIIâ€“V/Si lasers. Optics Letters, 2020, 45, 5275. | 3.3 | 16 |
| 59 | Low loss (Al)GaAs on an insulator waveguide platform. Optics Letters, 2019, 44, 4075. | 3.3 | 16 |
| 60 | Microresonator Brillouin laser stabilization using a microfabricated rubidium cell. Optics Express, 2016, 24, 14513. | 3.4 | 14 |
| 61 | Broadband, electro-optic, dual-comb spectrometer for linear and nonlinear measurements. Optics Express, 2020, 28, 29148. | 3.4 | 11 |
| 62 | Microrod Optical Frequency Reference in the Ambient Environment. Physical Review Applied, 2019, 12, . | 3.8 | 9 |
| 63 | Kerr Solitons with Tantala Ring Resonators. , 2019, , . | | 7 |
| 64 | Photonic crystal resonators for inverse-designed multi-dimensional optical interconnects. Optics Letters, 2022, 47, 3063. | 3.3 | 7 |
| 65 | 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 |
| 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 Si3N4 Waveguide Reference Cavity. , 2021, , . | | 1 |
| 69 | Optical synthesis by spectral translation. , 2020, , . | | 1 |
| 70 | Kerr Microresonator Soliton Frequency Combs at Cryogenic Temperatures. Physical Review Applied, 2019, 12, . | 3.8 | 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 |