Yoshitomo Okawachi

List of Publications by Year
in descending order

97 papers	8,190 citations	61984 43 h-index	60623 81 g-index
99 all docs	99 docs citations	99 times ranked	4634 citing authors

#	Article	IF	Citations
1	Tunable All-Optical Delays via Brillouin Slow Light in an Optical Fiber. Physical Review Letters, 2005, 94, 153902.	7.8	772
2	Battery-operated integrated frequency comb generator. Nature, 2018, 562, 401-405.	27.8	453
3	Octave-spanning frequency comb generation in a silicon nitride chip. Optics Letters, 2011, 36, 3398.	3.3	452
4	Broadband mid-infrared frequency comb generation in a Si_3N_4 microresonator. Optics Letters, 2015, 40, 4823.	3.3	417
5	Ultra-low-loss on-chip resonators with sub-milliwatt parametric oscillation threshold. Optica, 2017, 4, 619.	9.3	370
6	Wide bandwidth slow light using a Raman fiber amplifier. Optics Express, 2005, 13, 6092.	3.4	339
7	Silicon-chip mid-infrared frequency comb generation. Nature Communications, 2015, 6, 6299.	12.8	312
8	Thermally controlled comb generation and soliton modelocking in microresonators. Optics Letters, 2016, 41, 2565.	3.3	295
9	On-chip dual-comb source for spectroscopy. Science Advances, 2018, 4, e1701858.	10.3	256
10	Silicon-chip-based mid-infrared dual-comb spectroscopy. Nature Communications, 2018, 9, 1869.	12.8	234
11	Modelocking and femtosecond pulse generation in chip-based frequency combs. Optics Express, 2013, 21, 1335.	3.4	217
12	Demonstration of temporal cloaking. Nature, 2012, 481, 62-65.	27.8	180
13	Route to stabilized ultrabroadband microresonator-based frequency combs. Optics Letters, 2013, 38, 3478.	3.3	171
14	All-optical slow-light on a photonic chip. Optics Express, 2006, 14, 2317.	3.4	159
15	Ultrafast waveform compression using a time-domain telescope. Nature Photonics, 2009, 3, 581-585.	31.4	158
16	Octave-spanning coherent supercontinuum generation in a silicon nitride waveguide. Optics Letters, 2015, 40, 5117.	3.3	153
17	All-optical, wavelength and bandwidth preserving, pulse delay based on parametric wavelength conversion and dispersion. Optics Express, 2005, 13, 7872.	3.4	151
18	Mode-locked mid-infrared frequency combs in a silicon microresonator. Optica, 2016, 3, 854.	9.3	149

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19	Breather soliton dynamics in microresonators. Nature Communications, 2017, 8, 14569.	12.8	122
20	Theoretical and experimental investigation of broadband cascaded four-wave mixing in high-Q microspheres. Optics Express, 2009, 17, 16209.	3.4	119
21	Octave-spanning mid-infrared supercontinuum generation in silicon nanowaveguides. Optics Letters, 2014, 39, 4518.	3.3	114
22	Bandwidth shaping of microresonator-based frequency combs via dispersion engineering. Optics Letters, 2014, 39, 3535.	3.3	106
23	Coherent two-octave-spanning supercontinuum generation in lithium-niobate waveguides. Optics Letters, 2019, 44, 1222.	3.3	106
24	Turn-key, high-efficiency Kerr comb source. Optics Letters, 2019, 44, 4475.	3.3	104
25	Tunable frequency combs based on dual microring resonators. Optics Express, 2015, 23, 21527.	3.4	94
26	Strong polarization mode coupling in microresonators. Optics Letters, 2014, 39, 5134.	3.3	93
27	Synchronization of coupled optical microresonators. Nature Photonics, 2018, 12, 688-693.	31.4	89
28	Gigahertz frequency comb offset stabilization based on supercontinuum generation in silicon nitride waveguides. Optics Express, 2016, 24, 11043.	3.4	88
29	Near-Degenerate Quadrature-Squeezed Vacuum Generation on a Silicon-Nitride Chip. Physical Review Letters, 2020, 124, 193601.	7.8	87
30	Large tunable optical delays via self-phase modulation and dispersion. Optics Express, 2006, 14, 12022.	3.4	84
31	Raman lasing and soliton mode-locking in lithium niobate microresonators. Light: Science and Applications, 2020, 9, 9.	16.6	79
32	On-chip frequency comb generation at visible wavelengths via simultaneous second- and third-order optical nonlinearities. Optics Express, 2014, 22, 26517.	3.4	73
33	Asynchronous single-shot characterization of high-repetition-rate ultrafast waveforms using a time-lens-based temporal magnifier. Optics Letters, 2012, 37, 4892.	3.3	68
34	Chip-based frequency combs with sub-100 GHz repetition rates. Optics Letters, 2012, 37, 875.	3.3	68
35	High-Performance Silicon-Nitride-Based Multiple-Wavelength Source. IEEE Photonics Technology Letters, 2012, 24, 1375-1377.	2.5	67
36	Dual-pumped degenerate Kerr oscillator in a silicon nitride microresonator. Optics Letters, 2015, 40, 5267.	3.3	66

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37	Chip-based self-referencing using integrated lithium niobate waveguides. Optica, 2020, 7, 702.	9.3	63
38	Continuous-wave mid-infrared frequency conversion in silicon nanowaveguides. Optics Letters, 2011, 36, 1263.	3.3	62
39	Demonstration of chip-based coupled degenerate optical parametric oscillators for realizing a nanophotonic spin-glass. Nature Communications, 2020, 11, 4119.	12.8	60
40	Optical nonlinearities in high-confinement silicon carbide waveguides. Optics Letters, 2015, 40, 4138.	3.3	59
41	Competition between Raman and Kerr effects in microresonator comb generation. Optics Letters, 2017, 42, 2786.	3.3	56
42	Dynamics of mode-coupling-induced microresonator frequency combs in normal dispersion. Optics Express, 2016, 24, 28794.	3.4	47
43	Effects of multiphoton absorption on parametric comb generation in silicon microresonators. Optics Letters, 2015, 40, 2778.	3.3	45
44	Microresonator-based comb generation without an external laser source. Optics Express, 2014, 22, 1394.	3.4	44
45	Quantum random number generator using a microresonator-based Kerr oscillator. Optics Letters, 2016, 41, 4194.	3.3	44
46	Spectral phase conjugation via temporal imaging. Optics Express, 2009, 17, 20605.	3.4	43
47	Visible nonlinear photonics via high-order-mode dispersion engineering. Optica, 2020, 7, 135.	9.3	43
48	Coherent mid-infrared frequency combs in silicon-microresonators in the presence of Raman effects. Optics Express, 2016, 24, 13044.	3.4	41
49	Large tunable delays using parametric mixing and phase conjugation in Si nanowaveguides. Optics Express, 2008, 16, 10349.	3.4	40
50	High-resolution spectroscopy using a frequency magnifier. Optics Express, 2009, 17, 5691.	3.4	40
51	Carrier envelope offset detection via simultaneous supercontinuum and second-harmonic generation in a silicon nitride waveguide. Optics Letters, 2018, 43, 4627.	3.3	40
52	Microresonator-based high-resolution gas spectroscopy. Optics Letters, 2017, 42, 4442.	3.3	39
53	Counter-rotating cavity solitons in a silicon nitride microresonator. Optics Letters, 2018, 43, 547.	3.3	38
54	1 Î¼s tunable delay using parametric mixing and optical phase conjugation in Si waveguides. Optics Express, 2009, 17, 7004.	3.4	37

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55	Conversion efficiency of soliton Kerr combs. Optics Letters, 2021, 46, 3657.	3.3	35
56	Broadband parametric frequency comb generation with a 1-Î¼m pump source. Optics Express, 2012, 20, 26935.	3.4	33
57	Coherent, directional supercontinuum generation. Optics Letters, 2017, 42, 4466.	3.3	32
58	Tightly locked optical frequency comb from a semiconductor disk laser. Optics Express, 2019, 27, 1786.	3.4	28
59	Ultralong continuously tunable parametric delays via a cascading discrete stage. Optics Express, 2010, 18, 333.	3.4	27
60	Observation of Arnold Tongues in Coupled Soliton Kerr Frequency Combs. Physical Review Letters, 2019, 123, 153901.	7.8	26
61	PINE: Photonic Integrated Networked Energy efficient datacenters (ENLITENED Program) [Invited]. Journal of Optical Communications and Networking, 2020, 12, 443.	4.8	26
62	Gas-Phase Microresonator-Based Comb Spectroscopy without an External Pump Laser. ACS Photonics, 2018, 5, 2780-2785.	6.6	23
63	Synchronization of nonsolitonic Kerr combs. Science Advances, 2021, 7, eabi4362.	10.3	23
64	First Demonstration of a 10-Gb/s RZ End-to-End Four-Wave-Mixing Based Link at 1884 nm Using Silicon Nanowaveguides. IEEE Photonics Technology Letters, 2012, 24, 276-278.	2.5	19
65	Millimeter-scale chipâ€“based supercontinuum generation for optical coherence tomography. Science Advances, 2021, 7, eabg8869.	10.3	19
66	Performance scaling of a 10-GHz solid-state laser enabling self-referenced CEO frequency detection without amplification. Optics Express, 2020, 28, 12755.	3.4	19
67	Supercontinuum generation in angle-etched diamond waveguides. Optics Letters, 2019, 44, 4056.	3.3	18
68	Wavelength conversion and unicast of 10-Gb/s data spanning up to 700 nm using a silicon nanowaveguide. Optics Express, 2012, 20, 6488.	3.4	17
69	Characterization of Nonlinear Optical Crosstalk in Silicon Nanowaveguides. IEEE Photonics Technology Letters, 2012, 24, 185-187.	2.5	15
70	Continuous Tunable Delays at 10-Gb/s Data Rates Using Self-Phase Modulation and Dispersion. Journal of Lightwave Technology, 2007, 25, 3710-3715.	4.6	14
71	Absorption of ultrashort optical pulses in water. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 3343.	1.5	13
72	Microfluidic mid-infrared spectroscopy via microresonator-based dual-comb source. Optics Letters, 2019, 44, 4259.	3.3	12

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73	Breakthroughs in Nonlinear Silicon Photonics 2011. IEEE Photonics Journal, 2012, 4, 601-606.	2.0	11
74	Direct thermo-optical tuning of silicon microresonators for the mid-infrared. Optics Express, 2018, 26, 34965.	3.4	9
75	Active tuning of dispersive waves in Kerr soliton combs. Optics Letters, 2022, 47, 2234.	3.3	9
76	Soliton-effect compression of picosecond pulses on a photonic chip. Optics Letters, 2021, 46, 4706.	3.3	8
77	Dynamic control of photon lifetime for quantum random number generation. Optica, 2021, 8, 1458.	9.3	8
78	Theory of Ï‡⁽²⁾-microresonator-based frequency conversion. Optics Letters, 2021, 46, 5393.	3.3	7
79	Compressing light and sound. Nature Photonics, 2012, 6, 274-276.	31.4	6
80	Kerr Comb-Driven Silicon Photonic Transmitter. , 2021, , .		6
81	Ultraviolet to Mid-Infrared Supercontinuum Generation in Lithium-Niobate Waveguides. , 2020, , .		4
82	Large Tunable Optical Delays via Self-Phase Modulation and Dispersion. , 2007, , .		3
83	Dynamics of elliptical beams in the anomalous group-velocity dispersion regime. Optics Express, 2011, 19, 9139.	3.4	3
84	Error-Free Kerr Comb-Driven SiP Microdisk Transmitter. , 2021, , .		3
85	1 Î¼s tunable delay using parametric mixing and optical phase conjugation in Si waveguides: reply. Optics Express, 2009, 17, 16029.	3.4	2
86	Universal Conversion Efficiency Scaling with Free-Spectral-Range for Soliton Kerr Combs. , 2020, , .		2
87	Tailored anomalous group-velocity dispersion in silicon waveguides. , 2006, , .		1
88	Coherent Supercontinuum Generation with Picosecond Pulses. , 2017, , .		1
89	Dynamics of Coupled Microresonator-Based Degenerate Optical Parametric Oscillators. , 2018, , .		1
90	Microresonator Based Discrete- and Continuous-Variable Quantum Sources on Silicon-Nitride. , 2020, , .		1

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91	Raman-induced slow-light on a silicon photonic chip. , 2006, , .		0
92	Parametric oscillation via dispersion-compensation in high-Q microspheres. , 2007, , .		0
93	Synchronization of Normal-GVD Kerr Combs. , 2021, , .		0
94	Broadband Dual-Pumped Normal-GVD Kerr Combs. , 2021, , .		0
95	Raman Laser in a Lithium-Niobate Microresonator. , 2019, , .		0
96	Coherent Two-Octave-Spanning Supercontinuum Generation in Lithium-Niobate Waveguides. , 2019, , .		0
97	Frequency Comb Offset Stabilization via Integrated Lithium Niobate f-2f Interferometer. , 2020, , .		0