

# Leimeng Zhuang

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5721165/publications.pdf>

Version: 2024-02-01

89  
papers

2,765  
citations

279798

23  
h-index

175258

52  
g-index

89  
all docs

89  
docs citations

89  
times ranked

1630  
citing authors

#	ARTICLE	IF	CITATIONS
1	Programmable photonic signal processor chip for radiofrequency applications. <i>Optica</i> , 2015, 2, 854.	9.3	311
2	Silicon nitride microwave photonic circuits. <i>Optics Express</i> , 2013, 21, 22937.	3.4	268
3	Low-Loss Si <sub>3</sub> N <sub>4</sub> TriPleX Optical Waveguides: Technology and Applications Overview. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2018, 24, 1-21.	2.9	243
4	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennas—Part I: Design and Performance Analysis. <i>Journal of Lightwave Technology</i> , 2010, 28, 3-18.	4.6	225
5	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennas—Part II: Experimental Prototype. <i>Journal of Lightwave Technology</i> , 2010, 28, 19-31.	4.6	211
6	On-chip CMOS compatible reconfigurable optical delay line with separate carrier tuning for microwave photonic signal processing. <i>Optics Express</i> , 2011, 19, 21475.	3.4	175
7	Low-loss, high-index-contrast Si <sub>3</sub> N <sub>4</sub> /SiO <sub>2</sub> optical waveguides for optical delay lines in microwave photonics signal processing. <i>Optics Express</i> , 2011, 19, 23162.	3.4	136
8	Single-Chip Ring Resonator-Based 1 × 8 Optical Beam Forming Network in CMOS-Compatible Waveguide Technology. <i>IEEE Photonics Technology Letters</i> , 2007, 19, 1130-1132.	2.5	83
9	On-chip microwave photonic beamformer circuits operating with phase modulation and direct detection. <i>Optics Express</i> , 2014, 22, 17079.	3.4	79
10	Multiwavelength-Integrated Optical Beamformer Based on Wavelength Division Multiplexing for 2-D Phased Array Antennas. <i>Journal of Lightwave Technology</i> , 2014, 32, 3509-3520.	4.6	78
11	Ring resonator-based on-chip modulation transformer for high-performance phase-modulated microwave photonic links. <i>Optics Express</i> , 2013, 21, 25999.	3.4	74
12	Novel microwave photonic fractional Hilbert transformer using a ring resonator-based optical all-pass filter. <i>Optics Express</i> , 2012, 20, 26499.	3.4	56
13	Miniaturized Silicon Photonics Devices for Integrated Optical Signal Processors. <i>Journal of Lightwave Technology</i> , 2020, 38, 6-17.	4.6	52
14	Programmable optical processor chips: toward photonic RF filters with DSP-level flexibility and MHz-band selectivity. <i>Nanophotonics</i> , 2017, 7, 421-454.	6.0	48
15	System integration and radiation pattern measurements of a phased array antenna employing an integrated photonic beamformer for radio astronomy applications. <i>Applied Optics</i> , 2012, 51, 789.	1.8	34
16	Novel wideband microwave polarization network using a fully-reconfigurable photonic waveguide interleaver with a two-ring resonator-assisted asymmetric Mach-Zehnder structure. <i>Optics Express</i> , 2013, 21, 3114.	3.4	34
17	Novel low-loss waveguide delay lines using Vernier ring resonators for on-chip multi-microwave photonic signal processors. <i>Laser and Photonics Reviews</i> , 2013, 7, 994-1002.	8.7	33
18	Sub-GHz-resolution C-band Nyquist-filtering interleaver on a high-index-contrast photonic integrated circuit. <i>Optics Express</i> , 2016, 24, 5715.	3.4	33

#	ARTICLE	IF	CITATIONS
19	Large-scale integrated optics using TriPleX waveguide technology: from UV to IR. Proceedings of SPIE, 2009, , .	0.8	30
20	TriPleX waveguide platform: low-loss technology over a wide wavelength range. Proceedings of SPIE, 2013, , .	0.8	28
21	Integrated Photonic $\{m K\}_{m u}$ -Band Beamformer Chip With Continuous Amplitude and Delay Control. IEEE Photonics Technology Letters, 2013, 25, 1145-1148.	2.5	27
22	Picosecond optical pulse processing using a terahertz-bandwidth reconfigurable photonic integrated circuit. Nanophotonics, 2018, 7, 837-852.	6.0	26
23	Far-field scattering microscopy applied to analysis of slow light, power enhancement, and delay times in uniform Bragg waveguide gratings. Optics Express, 2007, 15, 1851.	3.4	23
24	Flexible RF filter using a nonuniform SCISSOR. Optics Letters, 2016, 41, 1118.	3.3	23
25	Pulse advancement and delay in an integrated-optical two-port ring-resonator circuit: direct experimental observations. Optics Letters, 2007, 32, 2620.	3.3	22
26	Experimental Layered/Enhanced ACO-OFDM Short-Haul Optical Fiber Link. IEEE Photonics Technology Letters, 2016, 28, 2815-2818.	2.5	22
27	Nyquist-Filtering (De)Multiplexer Using a Ring Resonator Assisted Interferometer Circuit. Journal of Lightwave Technology, 2016, 34, 1732-1738.	4.6	20
28	Multipass Performance of a Chip-Enhanced WSS for Nyquist-WDM Sub-Band Switching. Journal of Lightwave Technology, 2016, 34, 1824-1830.	4.6	18
29	Photonic integrated circuit implementation of a sub-GHz-selectivity frequency comb filter for optical clock multiplication. Optics Express, 2017, 25, 27635.	3.4	18
30	High-Selectivity On-Chip Optical Bandpass Filter With Sub-100-MHz Flat-Top and Under-2 Shape Factor. IEEE Photonics Technology Letters, 2019, 31, 455-458.	2.5	18
31	Phased Array Antenna Steering Using a Ring Resonator-Based Optical Beam Forming Network. , 2006, , .		17
32	Improved polarization dependent loss tolerance for polarization multiplexed coherent optical systems by polarization pairwise coding. Optics Express, 2015, 23, 27434.	3.4	17
33	Hardware-efficient signal generation of layered/enhanced ACO-OFDM for short-haul fiber-optic links. Optics Express, 2017, 25, 13359.	3.4	17
34	Foundry-compatible thin film lithium niobate modulator with RF electrodes buried inside the silicon oxide layer of the SOI wafer. Optics Express, 2020, 28, 25843.	3.4	17
35	Fully reconfigurable coupled ring resonator-based bandpass filter for microwave signal processing. , 2014, , .		15
36	CRIT-Alternative Narrow-Passband Waveguide Filter for Microwave Photonic Signal Processors. IEEE Photonics Technology Letters, 2014, 26, 1034-1037.	2.5	14

#	ARTICLE	IF	CITATIONS
37	Photonic Circuit Topologies for Optical OFDM and Nyquist WDM. Journal of Lightwave Technology, 2017, 35, 781-791.	4.6	14
38	Subcarrier Pairwise Coding for Short-Haul L/E-ACO-OFDM. IEEE Photonics Technology Letters, 2017, 29, 1584-1587.	2.5	14
39	Selectable-FSR 10-GHz Granularity WDM Superchannel Filter in a Reconfigurable Photonic Integrated Circuit. Journal of Lightwave Technology, 2018, 36, 2619-2626.	4.6	13
40	Lossless microwave photonic delay line using a ring resonator with an integrated semiconductor optical amplifier. Journal of Optics (United Kingdom), 2017, 19, 065802.	2.2	12
41	Hybrid material integration in silicon photonic integrated circuits. Journal of Semiconductors, 2021, 42, 041303.	3.7	12
42	Photonic High-Bandwidth RF Splitter With Arbitrary Amplitude and Phase Offset. IEEE Photonics Technology Letters, 2014, 26, 2122-2125.	2.5	10
43	Integrated microwave photonic splitter with reconfigurable amplitude, phase, and delay offsets. Optics Letters, 2015, 40, 5618.	3.3	10
44	Separate carrier tuning scheme for integrated optical delay lines in photonic beamformers. , 2011, , .		9
45	Sub-nanosecond-speed frequency-reconfigurable photonic radio frequency switch using a silicon modulator. Photonics Research, 2020, 8, 852.	7.0	9
46	Photonic integrated circuit as a picosecond pulse timing discriminator. Optics Express, 2016, 24, 8776.	3.4	8
47	Subband Pairwise Coding for Robust Nyquist-WDM Superchannel Transmission. Journal of Lightwave Technology, 2016, 34, 1746-1753.	4.6	8
48	Integrated Optical Beamformers. , 2015, , .		7
49	Nyquist pulse shaping using arrayed waveguide grating routers. Optics Express, 2016, 24, 22357.	3.4	6
50	Real-Time Demonstration of Augmented-Spectral-Efficiency DMT Transmitter Using a Single IFFT. Journal of Lightwave Technology, 2017, 35, 4796-4803.	4.6	5
51	Silicon microring modulator-based RF mixer for millimeter-wave phase-coded signal generation. Optics Letters, 2017, 42, 2742.	3.3	5
52	Ultralow-power polymer electro-optic integrated modulators. Journal of Semiconductors, 2019, 40, 070401.	3.7	5
53	Doubling the ROADM Sites using Pairwise Coding for 4%-Guard-Band Superchannels. , 2016, , .		5
54	On-chip, CMOS-compatible, hardware-compressive integrated photonic beamformer based on WDM. , 2013, , .		4

#	ARTICLE	IF	CITATIONS
55	Ring resonator-based on-chip PM-IM convertor for high-performance microwave photonic links. , 2013, , .		4
56	Faster-than-Nyquist DFT-S-OFDM using Overlapping Sub-Bands and Duobinary Filtering. , 2015, , .		4
57	Banded all-optical OFDM super-channels with low-bandwidth receivers. Optics Express, 2016, 24, 17968.	3.4	4
58	Experimental prototype of a novel ring resonator-based optical beamformer system. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	3
59	Integrated photonic signal processors for microwave photonics and optical communications: a progress review in TriPLeXTM Si3N4 waveguide technology. , 2014, , .		3
60	Optical generation of Nyquist-spacing super-channel using a ring resonator-based flat-top interleaver. , 2015, , .		3
61	Sub-band pairwise coding for inter-channel-interference mitigation in superchannel transmission systems. , 2015, , .		3
62	Ring-based interleaver for Nyquist filtering and WDM multiplexing. , 2015, , .		3
63	FPGA-based Layered/Enhanced ACO-OFDM Transmitter. , 2017, , .		3
64	Mitigation of Electrical Bandwidth Limitations using Optical Pre-Sampling. , 2017, , .		3
65	Silicon nonlinear switch as a conditional circulator for monostatic LiDAR systems. Photonics Research, 2022, 10, 426.	7.0	3
66	Optical phase synchronization in coherent optical beamformers for phased array receive antennas. , 2009, , .		2
67	Low-loss and programmable integrated photonic beamformer for electronically-steered broadband phased array antennas. , 2011, , .		2
68	Photonic integration and components development for a K<inf>u</inf>-band phased array antenna system. , 2011, , .		2
69	CMOS-compatible integrated optical delay line for broadband K<inf>u</inf>-band satellite communications. , 2012, , .		2
70	Waveguide filter-based on-chip differentiator for microwave photonic signal processing. , 2013, , .		2
71	Travelling-Wave Mach-Zehnder Modulator as a Temporal Integrator and a Time-Gate Isolator. IEEE Photonics Technology Letters, 2017, 29, 1101-1104.	2.5	2
72	Pairwise Coding to Mitigate Polarization Dependent Loss. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
73	Nyquist-WDM Channel Generation using an Arrayed Waveguide Grating Router. , 2016, , .		2
74	Compact 4Å–5 Gb/s Silicon-on-Insulator OFDM Transmitter. , 2017, , .		2
75	Full C-band Nyquist-WDM Interleaver Chip. , 2017, , .		2
76	Continuously tunable photonic fractional Hilbert transformer using ring resonators for on-chip microwave photonic signal processing. , 2012, , .		1
77	A wavelength selective switch for optical add/drop multiplexing of sub-bands within Nyquist WDM super-channels. , 2015, , .		1
78	Single IFFT Augmented Spectral Efficiency DMT Transmitter. , 2017, , .		1
79	Programmable optical chips for integrated microwave photonics RF filters. , 2017, , .		1
80	Photonics-enabled innovations in RF engineering. , 2018, , .		1
81	Silicon photonics nonlinear switch as conditional circulator for single-aperture LIDAR systems. , 2021, , .		1
82	Investigation of Performance-Enhanced ROADMs for N-WDM Superchannels Carrying High-Order QAM. , 2016, , .		1
83	Electro-photonics: an emerging field for photonic integrated circuits. , 2018, , .		1
84	Single ring resonator QPSK modulator. , 2015, , .		0
85	Active photonic integrated circuits using semiconductor optical amplifiers. , 2017, , .		0
86	Electro-photonics for high-capacity and energy-efficient optical communication networks. , 2017, , .		0
87	Photonic-Chip-Enabled 25 Tb/s Optical Superchannel using Cyclic Spectra. , 2017, , .		0
88	Editorial Introduction to JSTQE Special Issue on Programmable Photonics. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-2.	2.9	0
89	Foundry-compatible thin-film lithium niobate electro-optic modulators. , 2020, , .		0