Leimeng Zhuang

List of Publications by Year
in descending order

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	Silicon nonlinear switch as a conditional circulator for monostatic LiDAR systems. Photonics Research, 2022, 10, 426.	7.0	3
2	Silicon photonics nonlinear switch as conditional circulator for single-aperture LIDAR systems. , 2021, , .		1
3	Hybrid material integration in silicon photonic integrated circuits. Journal of Semiconductors, 2021, 42, 041303.	3.7	12
4	Miniaturized Silicon Photonics Devices for Integrated Optical Signal Processors. Journal of Lightwave Technology, 2020, 38, 6-17.	4.6	52
5	Editorial Introduction to JSTQE Special Issue on Programmable Photonics. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-2.	2.9	0
6	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
7	Sub-nanosecond-speed frequency-reconfigurable photonic radio frequency switch using a silicon modulator. Photonics Research, 2020, 8, 852.	7.0	9
8	Foundry-compatible thin-film lithium niobate electro-optic modulators. , 2020, , .		0
9	Ultralow-power polymer electroâ€“optic integrated modulators. Journal of Semiconductors, 2019, 40, 070401.	3.7	5
10	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
11	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
12	Low-Loss Si3N4 TriPleX Optical Waveguides: Technology and Applications Overview. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-21.	2.9	243
13	Photonics-enabled innovations in RF engineering. , 2018, , .		1
14	Picosecond optical pulse processing using a terahertz-bandwidth reconfigurable photonic integrated circuit. Nanophotonics, 2018, 7, 837-852.	6.0	26
15	Electro-photonics: an emerging field for photonic integrated circuits. , 2018, , .		1
16	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
17	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
18	Real-Time Demonstration of Augmented-Spectral-Efficiency DMT Transmitter Using a Single IFFT. Journal of Lightwave Technology, 2017, 35, 4796-4803.	4.6	5

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19	Active photonic integrated circuits using semiconductor optical amplifiers. , 2017, , .		0
20	Photonic Circuit Topologies for Optical OFDM and Nyquist WDM. Journal of Lightwave Technology, 2017, 35, 781-791.	4.6	14
21	Electro-photonics for high-capacity and energy-efficient optical communication networks. , 2017, , .		0
22	Programmable optical processor chips: toward photonic RF filters with DSP-level flexibility and MHz-band selectivity. Nanophotonics, 2017, 7, 421-454.	6.0	48
23	Photonic-Chip-Enabled 25 Tb/s Optical Superchannel using Cyclic Spectra. , 2017, , .		0
24	Single IFFT Augmented Spectral Efficiency DMT Transmitter. , 2017, , .		1
25	Subcarrier Pairwise Coding for Short-Haul L/E-ACO-OFDM. IEEE Photonics Technology Letters, 2017, 29, 1584-1587.	2.5	14
26	Programmable optical chips for integrated microwave photonics RF filters. , 2017, , .		1
27	Hardware-efficient signal generation of layered/enhanced ACO-OFDM for short-haul fiber-optic links. Optics Express, 2017, 25, 13359.	3.4	17
28	Photonic integrated circuit implementation of a sub-GHz-selectivity frequency comb filter for optical clock multiplication. Optics Express, 2017, 25, 27635.	3.4	18
29	Silicon microring modulator-based RF mixer for millimeter-wave phase-coded signal generation. Optics Letters, 2017, 42, 2742.	3.3	5
30	FPGA-based Layered/Enhanced ACO-OFDM Transmitter. , 2017, , .		3
31	Compact 4Ã—5 Gb/s Silicon-on-Insulator OFDM Transmitter. , 2017, , .		2
32	Mitigation of Electrical Bandwidth Limitations using Optical Pre-Sampling. , 2017, , .		3
33	Full C-band Nyquist-WDM Interleaver Chip. , 2017, , .		2
34	Banded all-optical OFDM super-channels with low-bandwidth receivers. Optics Express, 2016, 24, 17968.	3.4	4
35	Nyquist pulse shaping using arrayed waveguide grating routers. Optics Express, 2016, 24, 22357.	3.4	6
36	Photonic integrated circuit as a picosecond pulse timing discriminator. Optics Express, 2016, 24, 8776.	3.4	8

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37	Experimental Layered/Enhanced ACO-OFDM Short-Haul Optical Fiber Link. IEEE Photonics Technology Letters, 2016, 28, 2815-2818.	2.5	22
38	Sub-GHz-resolution C-band Nyquist-filtering interleaver on a high-index-contrast photonic integrated circuit. Optics Express, 2016, 24, 5715.	3.4	33
39	Multipass Performance of a Chip-Enhanced WSS for Nyquist-WDM Sub-Band Switching. Journal of Lightwave Technology, 2016, 34, 1824-1830.	4.6	18
40	Flexible RF filter using a nonuniform SCISSOR. Optics Letters, 2016, 41, 1118.	3.3	23
41	Subband Pairwise Coding for Robust Nyquist-WDM Superchannel Transmission. Journal of Lightwave Technology, 2016, 34, 1746-1753.	4.6	8
42	Nyquist-Filtering (De)Multiplexer Using a Ring Resonator Assisted Interferometer Circuit. Journal of Lightwave Technology, 2016, 34, 1732-1738.	4.6	20
43	Investigation of Performance-Enhanced ROADMs for N-WDM Superchannels Carrying High-Order QAM. , 2016, , .		1
44	Doubling the ROADM Sites using Pairwise Coding for 4%-Guard-Band Superchannels. , 2016, , .		5
45	Nyquist-WDM Channel Generation using an Arrayed Waveguide Grating Router. , 2016, , .		2
46	Optical generation of Nyquist-spacing super-channel using a ring resonator-based flat-top interleaver. , 2015, , .		3
47	Improved polarization dependent loss tolerance for polarization multiplexed coherent optical systems by polarization pairwise coding. Optics Express, 2015, 23, 27434.	3.4	17
48	Integrated microwave photonic splitter with reconfigurable amplitude, phase, and delay offsets. Optics Letters, 2015, 40, 5618.	3.3	10
49	Sub-band pairwise coding for inter-channel-interference mitigation in superchannel transmission systems. , 2015, , .		3
50	Programmable photonic signal processor chip for radiofrequency applications. Optica, 2015, 2, 854.	9.3	311
51	A wavelength selective switch for optical add/drop multiplexing of sub-bands within Nyquist WDM super-channels. , 2015, , .		1
52	Single ring resonator QPSK modulator. , 2015, , .		0
53	Ring-based interleaver for Nyquist filtering and WDM multiplexing. , 2015, , .		3
54	Integrated Optical Beamformers. , 2015, , .		7

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55	Faster-than-Nyquist DFT-S-OFDM using Overlapping Sub-Bands and Duobinary Filtering. , 2015, , .		4
56	Pairwise Coding to Mitigate Polarization Dependent Loss. , 2015, , .		2
57	Integrated photonic signal processors for microwave photonics and optical communications: a progress review in TriPleXTM Si3N4 waveguide technology. , 2014, , .		3
58	On-chip microwave photonic beamformer circuits operating with phase modulation and direct detection. Optics Express, 2014, 22, 17079.	3.4	79
59	Fully reconfigurable coupled ring resonator-based bandpass filter for microwave signal processing. , 2014, , .		15
60	Photonic High-Bandwidth RF Splitter With Arbitrary Amplitude and Phase Offset. IEEE Photonics Technology Letters, 2014, 26, 2122-2125.	2.5	10
61	Multiwavelength-Integrated Optical Beamformer Based on Wavelength Division Multiplexing for 2-D Phased Array Antennas. Journal of Lightwave Technology, 2014, 32, 3509-3520.	4.6	78
62	CRIT-Alternative Narrow-Passband Waveguide Filter for Microwave Photonic Signal Processors. IEEE Photonics Technology Letters, 2014, 26, 1034-1037.	2.5	14
63	Novel lowâ€loss waveguide delay lines using Vernier ring resonators for onâ€chip multiâ€» microwave photonic signal processors. Laser and Photonics Reviews, 2013, 7, 994-1002.	8.7	33
64	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
65	TriPleX waveguide platform: low-loss technology over a wide wavelength range. Proceedings of SPIE, 2013, , .	0.8	28
66	On-chip, CMOS-compatible, hardware-compressive integrated photonic beamformer based on WDM. , 2013, , .		4
67	Ring resonator-based on-chip PM-IM convertor for high-performance microwave photonic links. , 2013, , .		4
68	Silicon nitride microwave photonic circuits. Optics Express, 2013, 21, 22937.	3.4	268
69	Ring resonator-based on-chip modulation transformer for high-performance phase-modulated microwave photonic links. Optics Express, 2013, 21, 25999.	3.4	74
70	Novel wideband microwave polarization network using a fully-reconfigurable photonic waveguide interleaver with a two-ring resonator-assisted asymmetric Mach-Zehnder structure. Optics Express, 2013, 21, 3114.	3.4	34
71	Waveguide filter-based on-chip differentiator for microwave photonic signal processing. , 2013, , .		2
72	System integration and radiation pattern measurements of a phased array antenna employing an integrated photonic beamformer for radio astronomy applications. Applied Optics, 2012, 51, 789.	1.8	34

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73	Novel microwave photonic fractional Hilbert transformer using a ring resonator-based optical all-pass filter. Optics Express, 2012, 20, 26499.	3.4	56
74	CMOS-compatible integrated optical delay line for broadband K<inf>u</inf>-band satellite communications. , 2012, , .		2
75	Continuously tunable photonic fractional Hilbert transformer using ring resonators for on-chip microwave photonic signal processing. , 2012, , .		1
76	Low-loss and programmable integrated photonic beamformer for electronically-steered broadband phased array antennas. , 2011, , .		2
77	Separate carrier tuning scheme for integrated optical delay lines in photonic beamformers. , 2011, , .		9
78	On-chip CMOS compatible reconfigurable optical delay line with separate carrier tuning for microwave photonic signal processing. Optics Express, 2011, 19, 21475.	3.4	175
79	Low-loss, high-index-contrast Si_3N_4/SiO_2 optical waveguides for optical delay lines in microwave photonics signal processing. Optics Express, 2011, 19, 23162.	3.4	136
80	Photonic integration and components development for a K<inf>u</inf>-band phased array antenna system. , 2011, , .		2
81	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennasâ€”Part I: Design and Performance Analysis. Journal of Lightwave Technology, 2010, 28, 3-18.	4.6	225
82	Novel Ring Resonator-Based Integrated Photonic Beamformer for Broadband Phased Array Receive Antennasâ€”Part II: Experimental Prototype. Journal of Lightwave Technology, 2010, 28, 19-31.	4.6	211
83	Large-scale integrated optics using TriPleX waveguide technology: from UV to IR. Proceedings of SPIE, 2009, , .	0.8	30
84	Optical phase synchronization in coherent optical beamformers for phased array receive antennas. , 2009, , .		2
85	Pulse advancement and delay in an integrated-optical two-port ring-resonator circuit: direct experimental observations. Optics Letters, 2007, 32, 2620.	3.3	22
86	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
87	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
88	Single-Chip Ring Resonator-Based 1 $imes$ 8 Optical Beam Forming Network in CMOS-Compatible Waveguide Technology. IEEE Photonics Technology Letters, 2007, 19, 1130-1132.	2.5	83
89	Phased Array Antenna Steering Using a Ring Resonator-Based Optical Beam Forming Network. , 2006, , .		17