

Lu Zhang

List of Publications by Year in descending order

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86
times ranked

890
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct Modulation and Free-Space Transmissions of up to 6 Gbps Multilevel Signals With a 4.65- μm Quantum Cascade Laser at Room Temperature. <i>Journal of Lightwave Technology</i> , 2022, 40, 2370-2377.	4.6	16
2	Robust Photonic Terahertz Vector Imaging Scheme Using an Optical Frequency Comb. <i>Journal of Lightwave Technology</i> , 2022, 40, 2717-2723.	4.6	6
3	Bridging the Terahertz Gap: Photonics-Assisted Free-Space Communications From the Submillimeter-Wave to the Mid-Infrared. <i>Journal of Lightwave Technology</i> , 2022, 40, 3149-3162.	4.6	33
4	A W-Band Communication and Sensing Convergence System Enabled by Single OFDM Waveform. <i>Micromachines</i> , 2022, 13, 312.	2.9	2
5	Integrated dual-laser photonic chip for high-purity carrier generation enabling ultrafast terahertz wireless communications. <i>Nature Communications</i> , 2022, 13, 1388.	12.8	48
6	Optical Amplification-Free 200 Gbaud On-Off Keying Link for Intra-Data Center Communications. , 2022, , .		11
7	Gb/s LWIR FSO Transmission at 9.6 μm using a Directly-Modulated Quantum Cascade Laser and an Uncooled Quantum Cascade Detector. , 2022, , .		4
8	Feedforward Neural Network-Based EVM Estimation: Impairment Tolerance in Coherent Optical Systems. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2022, 28, 1-10.	2.9	8
9	Human recognition with the optoelectronic reservoir-computing-based micro-Doppler radar signal processing. <i>Applied Optics</i> , 2022, 61, 5782.	1.8	1
10	Improvement in Sensing Accuracy of an OFDM-Based W-Band System. <i>Journal of Communications and Information Networks</i> , 2022, 7, 37-47.	5.2	3
11	Free-space Communications Enabled by Quantum Cascade Lasers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2021, 218, 2000407.	1.8	48
12	Photonic generation of terahertz dual-chirp waveforms ranging from 364 to 392 GHz. <i>Optics Express</i> , 2021, 29, 19240.	3.4	6
13	60 Gbit/s PAM-4 wireless transmission in the 310 GHz band with nonlinearity tolerant signal processing. <i>Optics Communications</i> , 2021, 492, 126988.	2.1	5
14	Tbit/s Multi-Dimensional Multiplexing THz-Over-Fiber for 6G Wireless Communication. <i>Journal of Lightwave Technology</i> , 2021, 39, 5783-5790.	4.6	31
15	Numerical Study of Parallel Optoelectronic Reservoir Computing to Enhance Nonlinear Channel Equalization. <i>Photonics</i> , 2021, 8, 406.	2.0	6
16	Photonic Generation of Barker-code Phase-Coded Terahertz Signals. , 2021, , .		2
17	Sensing Accuracy Improvement of an OFDM W-band System. , 2021, , .		0
18	Up to 6 Gbps Mid-Infrared Free-Space Transmission with a Directly Modulated Quantum Cascade Laser. , 2021, , .		3

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19	Analysis of THz Earth-Satellite Link Capacity in the Mid-Latitude Regions. , 2021, , .		0
20	Enabling Technologies for Optical Data Center Networks: Spatial Division Multiplexing. Journal of Lightwave Technology, 2020, 38, 18-30.	4.6	48
21	200 Gbps/Lane IM/DD Technologies for Short Reach Optical Interconnects. Journal of Lightwave Technology, 2020, 38, 492-503.	4.6	117
22	Optical Power Budget of 25+ Gbps IM/DD PON with Digital Signal Post-Equalization. Applied Sciences (Switzerland), 2020, 10, 6106.	2.5	5
23	Kernel Affine Projection for Nonlinearity Tolerant Optical Short Reach Systems. IEEE Transactions on Communications, 2020, 68, 6403-6412.	7.8	5
24	Beyond 100 Gb/s Optoelectronic Terahertz Communications: Key Technologies and Directions. IEEE Communications Magazine, 2020, 58, 34-40.	6.1	49
25	2 Å– 300 Gbit/s Line Rate PS-64QAM-OFDM THz Photonic-Wireless Transmission. Journal of Lightwave Technology, 2020, 38, 4715-4721.	4.6	61
26	26.8-m THz wireless transmission of probabilistic shaping 16-QAM-OFDM signals. APL Photonics, 2020, 5, .	5.7	58
27	Improved Doubly-Selective Radio Channel Tracking for Modern Wireless Systems. , 2020, , .		0
28	100 Gbit/s 350 GHz Photonic-Wireless Transmission. , 2020, , .		0
29	Nonlinearity-aware optoelectronic terahertz discrete multitone signal transmission with a zero-bias diode. Optics Letters, 2020, 45, 5045.	3.3	10
30	PS-64QAM-OFDM THz Photonic-Wireless Transmission with 2Å–300 Gbit/s Line Rate. , 2020, , .		5
31	300ÅGHz vector imaging system based on self-mixing detection. , 2020, , .		1
32	Nonlinearity Tolerant High-Speed DMT Transmission With 1.5- <i>Å</i> Single-Mode VCSEL and Multi-Core Fibers for Optical Interconnects. Journal of Lightwave Technology, 2019, 37, 380-388.	4.6	14
33	Chip Based THz Emitter for Ultra-high Speed THz Wireless Communication. , 2019, , .		1
34	Towards 25+Gbps» IM-DD PON: NRZ, Duobinary, PAM4, and DMT Transmission and Optical Budget Comparison. , 2019, , .		0
35	Real-time VLC system integrated with positioning beacon transmission based on 2ASK-CE-OFDM coding. Optics Communications, 2019, 452, 252-257.	2.1	5
36	Toward Terabit Digital Radio over Fiber Systems: Architecture and Key Technologies. IEEE Communications Magazine, 2019, 57, 131-137.	6.1	32

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37	Lattice pilot aided DMT transmission for optical interconnects achieving 5.820bits/HZ per lane. , 2019, , .		0
38	Kernel affine projection for compensating nonlinear impairments in optical direct detection systems. , 2019, , .		1
39	Multilevel Modulation at 100 Gbaud for Short Reach C-Band Links. , 2019, , .		0
40	107.1-Gbps net-rate transmission over a joint 51km-fibre-and-10.7m-wireless link for terahertz radio access networks. , 2019, , .		7
41	Low overhead equalization algorithm for simultaneously estimating channel and mitigating intrinsic imaginary interference in IMDD-OQAM-OFDM system. Optics Communications, 2019, 430, 256-261.	2.1	13
42	High-Speed PAM4-Based Optical SDM Interconnects With Directly Modulated Long-Wavelength VCSEL. Journal of Lightwave Technology, 2019, 37, 356-362.	4.6	19
43	Kernel mapping for mitigating nonlinear impairments in optical short-reach communications. Optics Express, 2019, 27, 29567.	3.4	6
44	Integrated Dual-DFB Laser for 408 GHz Carrier Generation Enabling 131 Gbit/s Wireless Transmission over 10.7 Meters. , 2019, , .		22
45	Beyond 200 Gbps per Lane Intensity Modulation Direct Detection (IM/DD) Transmissions for Optical Interconnects: Challenges and Recent Developments. , 2019, , .		14
46	50-Gb/s Dispersion-unmanaged DMT Transmission with Injection Locked 10G-class 1.55- μ m DML. , 2019, , .		0
47	Key technologies to enable terabit-scale digital radio-over-fiber systems. , 2019, , .		0
48	Applications of Optical Technology in Broadband Wireless Communication. , 2018, , .		0
49	Digital Radio-Over-Multicore-Fiber System with Self-Homodyne Coherent Detection and Entropy Coding for Mobile Fronthaul. , 2018, , .		1
50	An Automatic Liver Segmentation Algorithm for CT Images U-Net with Separated Paths of Feature Extraction. , 2018, , .		4
51	Short Reach Optical Interconnects with Single Externally Modulated Laser Operated in C-Band. , 2018, , .		1
52	Inter-Core Crosstalk in Multicore Fibers: Impact on $56\text{-ext}\{\text{Gbaud}\}/\lambda$ /Core PAM-4 Transmission. , 2018, , .		3
53	Experimental Demonstration of 503.61-Gbit/s DMT over 10-km 7-Core Fiber with $1.5\text{-}\mu\text{m}$ SM-VCSEL for Optical Interconnects. , 2018, , .		3
54	Real-time 100 Gbps/core NRZ and EDB IM/DD transmission over multicore fiber for intra-datacenter communication networks. Optics Express, 2018, 26, 10519.	3.4	31

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55	Spectrally efficient digitized radio-over-fiber system with k-means clustering-based multidimensional quantization. Optics Letters, 2018, 43, 1546.	3.3	31
56	Nonlinearity-aware 200-Gbit/s DMT transmission for C-band short-reach optical interconnects with a single packaged electro-absorption modulated laser. Optics Letters, 2018, 43, 182.	3.3	42
57	Fixed and mobile convergence with stacked modulation. , 2018, , .		1
58	726.7-Gb/s 1.5- μ m Single-Mode VCSEL Discrete Multi-Tone Transmission over 2.5-km Multicore Fiber. , 2018, , .		8
59	7-100 Gbps PAM-4 Transmission over 1-km and 10-km Single Mode 7-core Fiber using 1.5- μ m SM-VCSEL. , 2018, , .		17
60	K-means Clustering based Multi-Dimensional Quantization Scheme for Digital Mobile Fronthaul. , 2018, , .		5
61	High-speed SDM Interconnects with Directly-Modulated 1.5- μ m VCSEL enabled by Low-Complexity Signal Processing Techniques. , 2018, , .		1
62	Real-time 100 Gbps/core NRZ and EDB IM/DD Transmission over 10 km Multicore Fiber. , 2018, , .		2
63	7-149 Gbit/s PAM4 Transmission over 1 km Multicore Fiber for Short-Reach Optical Interconnects. , 2018, , .		4
64	A Key Space Enhanced Chaotic Encryption Scheme for Physical Layer Security in OFDM-PON. IEEE Photonics Journal, 2017, 9, 1-10.	2.0	57
65	Digital chaos-masked optical encryption scheme enhanced by two-dimensional key space. Optics Communications, 2017, 398, 62-66.	2.1	9
66	Experimental demonstration of polar coded IM/DD optical OFDM for short reach system. Optics Communications, 2017, 402, 136-139.	2.1	8
67	Experimental demonstration of the OQAM-OFDM-based wavelength stacked passive optical networks. Optics Communications, 2017, 394, 129-134.	2.1	7
68	4 Gbps PAM-4 and DMT Free Space Transmission using a 4.65- μ m Quantum Cascaded Laser at Room Temperature. , 2017, , .		2
69	200-Gbps DMT Transmission over 1.6-km SSMF with A Single EML/DAC/PD for Optical Interconnects at C-Band. , 2017, , .		3
70	15-Gbaud PAM4 Digital Mobile Fronthaul with Enhanced Differential Pulse Coding Modulation Supporting 122 LTE-A Channels with up to 4096QAM. , 2017, , .		1
71	2 x 2 mimo in-band full-duplex radio front-end with 50 db self-interference cancellation in 90 mHz bandwidth. , 2017, , .		6
72	Performance investigation of polar coded IM/DD optical OFDM for short reach interconnection. , 2017, , .		2

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73	Digital mobile fronthaul employing differential pulse code modulation with suppressed quantization noise. Optics Express, 2017, 25, 31921.	3.4	37
74	High performance and cost effective CO-OFDM system aided by polar code. Optics Express, 2017, 25, 2763.	3.4	21
75	Experimental study of wideband in-band full-duplex communication based on optical self-interference cancellation. Optics Express, 2016, 24, 30139.	3.4	28
76	FFT-based universal filtered multicarrier technology for low overhead and agile datacenter interconnect. , 2016, , .		2
77	Directly modulated laser-based optical radio frequency self-interference cancellation system. Optical Engineering, 2016, 55, 026116.	1.0	24
78	Channel estimation algorithm for interference suppression in IMDDâ€™OQAMâ€™OFDM transmission systems. Optics Communications, 2016, 364, 129-133.	2.1	29
79	Study of FFT/IFFT precision in optical OQAM-OFDM system with limited resolution DAC/ADC. , 2016, , .		5
80	Comparison Study of Long-haul 100-Gb/s DDO-OFDM and CO-OFDM WDM Systems. Journal of the Optical Society of Korea, 2016, 20, 557-562.	0.6	3
81	Experimental Demonstration of Wireless In-Band Full-Duplex with DML-Based Self-Interference Cancellation. , 2016, , .		0
82	Self-interference cancellation using dual-drive Mach-Zehnder modulator for in-band full-duplex radio-over-fiber system. Optics Express, 2015, 23, 33205.	3.4	76
83	Experimental Demonstration of a Long reach 40-Gb/s Wavelength Stacked PON System Based on OQAM-OFDM. , 2015, , .		0
84	Self-interference cancellation using Mach-Zehnder Modulator for Full-Duplex communication. , 2014, , .		4
85	A Sensitivity Improvement Channel Estimation Algorithm for Direct Detection OQAM-OFDM Systems. , 2014, , .		3