

Guifang Li

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

2,323
citations

257450

24
h-index

223800

46
g-index

111
all docs

111
docs citations

111
times ranked

1865
citing authors

#	ARTICLE	IF	CITATIONS
1	Space-division multiplexing: the next frontier in optical communication. <i>Advances in Optics and Photonics</i> , 2014, 6, 413.	25.5	606
2	Capacity limits of spatially multiplexed free-space communication. <i>Nature Photonics</i> , 2015, 9, 822-826.	31.4	215
3	All-fiber mode-group-selective photonic lantern using graded-index multimode fibers. <i>Optics Express</i> , 2015, 23, 224.	3.4	122
4	Phase and Amplitude Regeneration of Differential Phase-Shift Keyed Signals Using Phase-Sensitive Amplification. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2008, 14, 648-658.	2.9	94
5	Nonlinear Impairment Compensation for Polarization-Division Multiplexed WDM Transmission Using Digital Backward Propagation. <i>IEEE Photonics Journal</i> , 2009, 1, 144-152.	2.0	68
6	Chromatic Dispersion Compensation Using Digital FIR Filtering With Coherent Detection. <i>IEEE Photonics Technology Letters</i> , 2007, 19, 969-971.	2.5	59
7	Time-division-multiplexed few-mode passive optical network. <i>Optics Express</i> , 2015, 23, 1151.	3.4	55
8	Miniaturized Silicon Photonics Devices for Integrated Optical Signal Processors. <i>Journal of Lightwave Technology</i> , 2020, 38, 6-17.	4.6	52
9	Nonlinear Impairment Compensation for Polarization-Division Multiplexed WDM Transmission Using Digital Backward Propagation. <i>IEEE Photonics Journal</i> , 2010, 2, 816-832.	2.0	51
10	Orthogonal Wavelength-Division Multiplexing Using Coherent Detection. <i>IEEE Photonics Technology Letters</i> , 2007, 19, 2015-2017.	2.5	42
11	Bilayer dispersion-flattened waveguides with four zero-dispersion wavelengths. <i>Optics Letters</i> , 2016, 41, 4939.	3.3	41
12	Sensitivity limits and degradations in OD8PSK. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 720-722.	2.5	39
13	Perspective on mode-division multiplexing. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	39
14	First Demonstration of Six-Mode PON Achieving a Record Gain of 4 dB in Upstream Transmission Loss Budget. <i>Journal of Lightwave Technology</i> , 2016, 34, 1990-1996.	4.6	37
15	Wavelength and polarization insensitive all-optical clock recovery from 96-Gb/s data by using a two-section gain-coupled DFB laser. <i>IEEE Photonics Technology Letters</i> , 2003, 15, 590-592.	2.5	34
16	Experimental Demonstration of Fiber Impairment Compensation Using the Split-Step Finite-Impulse-Response Filtering Method. <i>IEEE Photonics Technology Letters</i> , 2008, 20, 1887-1889.	2.5	34
17	180-GHz clock recovery using a multisection gain-coupled distributed feedback laser. <i>IEEE Photonics Technology Letters</i> , 2005, 17, 1295-1297.	2.5	33
18	Few-mode fibre-optic microwave photonic links. <i>Light: Science and Applications</i> , 2017, 6, e17021-e17021.	16.6	32

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19	Theoretical sensitivity of direct-detection multilevel modulation formats for high spectral efficiency optical communications. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 571-580.	2.9	30
20	Optical Fiber Refractive Index Profiling by Iterative Optical Diffraction Tomography. Journal of Lightwave Technology, 2018, 36, 5754-5763.	4.6	29
21	A Degenerate-Mode-Selective Coupler for Stable DSP-free MDM Transmission. Journal of Lightwave Technology, 2019, 37, 4410-4420.	4.6	29
22	All-optical clock recovery for both RZ and NRZ data. IEEE Photonics Technology Letters, 2002, 14, 873-875.	2.5	28
23	Polarization Demultiplexing by Independent Component Analysis. IEEE Photonics Technology Letters, 2010, 22, 805-807.	2.5	27
24	Optical generation of microwave/millimeter-wave signals using two-section gain-coupled DFB lasers. IEEE Photonics Technology Letters, 1999, 11, 1292-1294.	2.5	26
25	Comments on "Theoretical Analysis of Gain-Recovery Time and Chirp in QD-SOA", IEEE Photonics Technology Letters, 2006, 18, 2434-2435.	2.5	26
26	Optical microwave/millimeter-wave links using direct modulation of two-section gain-coupled DFB lasers. IEEE Photonics Technology Letters, 2005, 17, 1734-1736.	2.5	25
27	Remote key establishment by random mode mixing in multimode fibers and optical reciprocity. Optical Engineering, 2019, 58, 1.	1.0	24
28	All-optical enhancement of clock and clock-to-data suppression ratio of NRZ data. IEEE Photonics Technology Letters, 2001, 13, 239-241.	2.5	23
29	An Octave-Spanning Optical Parametric Amplifier Based on a Low-Dispersion Silicon-Rich Nitride Waveguide. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-7.	2.9	19
30	Demonstration of 6 \times 10-Gb/s MIMO-Free Polarization- and Mode-Multiplexed Transmission. IEEE Photonics Technology Letters, 2018, 30, 1372-1375.	2.5	17
31	An Integrated Few-Mode Power Splitter Based on Multimode Interference. Journal of Lightwave Technology, 2019, 37, 3000-3008.	4.6	17
32	Power-efficient generation of two-octave mid-IR frequency combs in a germanium microresonator. Nanophotonics, 2018, 7, 1461-1467.	6.0	16
33	All-Optical Carrier Synchronization Using a Phase-Sensitive Oscillator. IEEE Photonics Technology Letters, 2007, 19, 987-989.	2.5	14
34	Demonstration of world's first few-mode GPON. , 2014, , .		14
35	Mode demultiplexing hybrids for mode-division multiplexing coherent receivers. Photonics Research, 2019, 7, 917.	7.0	14
36	Turbulence-Resistant FSO Communication Using a Few-Mode Pre-Amplified Receiver. Scientific Reports, 2019, 9, 16247.	3.3	12

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37	An Ultra-Broadband Polarization-Insensitive Optical Hybrid Using Multiplane Light Conversion. <i>Journal of Lightwave Technology</i> , 2020, 38, 6286-6291.	4.6	12
38	Metasurface-Based Wide-Angle Beam Steering for Optical Trapping. <i>IEEE Access</i> , 2020, 8, 37275-37280.	4.2	12
39	Reconstructing complex refractive-index of multiply-scattering media by use of iterative optical diffraction tomography. <i>Optics Express</i> , 2020, 28, 6846.	3.4	11
40	Prototype system for real-time IM/DD MDM transmission based on multiple-ring-core FMF and degenerate-mode-selective reception. <i>Optics Express</i> , 2019, 27, 38281.	3.4	11
41	Self-consistent Simulation of self-pulsating two-section gain-coupled DFB lasers. <i>IEEE Journal of Quantum Electronics</i> , 2005, 41, 525-531.	1.9	10
42	Efficient Grating Couplers for Space Division Multiplexing Applications. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2018, 24, 1-5.	2.9	10
43	Reducing group delay spread using uniform long-period gratings. <i>Scientific Reports</i> , 2018, 8, 3882.	3.3	10
44	Simultaneous Temperature and Strain Measurements Using Polarization-Maintaining Few-Mode Bragg Gratings. <i>Sensors</i> , 2019, 19, 5221.	3.8	10
45	Demonstration of stable 3x10 Gb/s mode group-multiplexed transmission over a 20 km few-mode fiber. , 2018, , .		10
46	Selective Post-Compensation of Nonlinear Impairments in Polarization-Division Multiplexed WDM Systems With Different Channel Granularities. <i>IEEE Journal of Quantum Electronics</i> , 2011, 47, 109-116.	1.9	9
47	Invited Article: Four-mode semiconductor optical amplifier. <i>APL Photonics</i> , 2016, 1, 070801.	5.7	9
48	Robust cavity soliton formation with hybrid dispersion. <i>Photonics Research</i> , 2018, 6, 647.	7.0	9
49	Routing and Wavelength Assignment in Optical Networks Using Logical Link Representation and Efficient Bitwise Computation. <i>Photonic Network Communications</i> , 2005, 10, 333-346.	2.7	8
50	Ultrafast Pulse Manipulation in Dispersion-Flattened Waveguides With Four Zero-Dispersion Wavelengths. <i>Journal of Lightwave Technology</i> , 2019, 37, 6174-6182.	4.6	8
51	Joint Fiber and SOA Impairment Compensation Using Digital Backward Propagation. <i>IEEE Photonics Journal</i> , 2010, 2, 753-758.	2.0	7
52	Multimode fiber amplifier with tunable modal gain using a reconfigurable multimode pump. , 2011, , .		7
53	Optical fiber amplifiers for space-division multiplexing. <i>Frontiers of Optoelectronics</i> , 2012, 5, 351-357.	3.7	7
54	Few-Mode SDM Receivers Exploiting Parallelism of Free Space. <i>IEEE Photonics Journal</i> , 2019, 11, 1-11.	2.0	7

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55	Optical Broadcasting Employing Incoherent And Low-Coherence Spatial Modes for Bi-Directional Optical Wireless Communications. Journal of Lightwave Technology, 2020, , 1-1.	4.6	7
56	Adaptive frequency domain equalization for mode-division multiplexed transmission. , 2012, , .		6
57	Experimental demonstration of fiber impairment compensation using the split-step infinite impulse response method. , 2008, , .		5
58	Static Gain, Optical Modulation Response, and Nonlinear Phase Noise in Saturated Quantum-Dot Semiconductor Optical Amplifiers. IEEE Journal of Quantum Electronics, 2009, 45, 499-505.	1.9	5
59	Think Outside the Fiber: Imaging Amplifier for Space-Multiplexed Optical Transmission. IEEE Photonics Journal, 2012, 4, 1316-1324.	2.0	5
60	Improving fairness of OBS routing protocols in multimode fiber networks. , 2013, , .		5
61	Novel applications of space-division multiplexing. Frontiers of Optoelectronics, 2016, 9, 270-276.	3.7	5
62	Measurement of Principal Modes in Few-Mode Fibers by S^2 Method. IEEE Photonics Journal, 2020, 12, 1-8.	2.0	5
63	High-Speed Random-Channel Cryptography in Multimode Fibers. IEEE Photonics Journal, 2021, 13, 1-9.	2.0	5
64	All-Optical Carrier Phase and Polarization Recovery Using a Phase-Sensitive Oscillator. , 2007, , .		4
65	Addressing conversion cascading constraint in OBS networks through proactive routing. Photonic Network Communications, 2009, 18, 90-104.	2.7	4
66	Prototype of DSP-Free IM/DD MDM Transceiver for Datacenter Interconnection. Journal of Lightwave Technology, 2022, 40, 1283-1295.	4.6	4
67	All-optical phase and amplitude regeneration of DPSK signals based on phase-sensitive amplification. , 2006, , .		3
68	Using constrained preemption to improve dropping fairness in optical burst switching networks. Telecommunication Systems, 2007, 34, 181-194.	2.5	3
69	BPSK phase and amplitude regeneration using a traveling-wave phase-sensitive amplifier. , 2008, , .		3
70	Amplifying to perfection. Nature Photonics, 2011, 5, 385-386.	31.4	3
71	Minimizing the Number of Spans for Terrestrial Fiber-Optic Systems Using Quasi-Single-Mode Transmission. IEEE Photonics Journal, 2018, 10, 1-10.	2.0	3
72	Error analyses for simultaneous measurement of temperature and strain based on polarization-maintaining few-mode fibers. , 2018, , .		3

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73	Nonlinear dynamics for all-optical 3R regeneration. , 0, , .		2
74	Impact of RZ pulse carver phase errors on optical DQPSK. , 2005, , .		2
75	Improved chromatic dispersion tolerance for optical duobinary transmission using coherent detection. IEEE Photonics Technology Letters, 2006, 18, 517-519.	2.5	2
76	Phase Regeneration of DPSK Signals Based on Symmetric-Pump Phase-Sensitive Amplification in Bismuth Oxide Highly Nonlinear Fiber. , 2007, , .		2
77	Comparison of quasi-symmetrical and asymmetrical mode beatings in two-section partially gain-coupled DFB lasers. Optical and Quantum Electronics, 2007, 38, 1045-1051.	3.3	2
78	An iterative reconstruction algorithm for optical diffraction tomography. , 2017, , .		2
79	A Comparative Analysis on Fully Integrated Spectral Broadening of Kerr Frequency Combs. IEEE Photonics Journal, 2017, 9, 1-9.	2.0	2
80	Optical Implementation of Butler Matrix for Hardware-Efficient Multiuser Beamforming. IEEE Photonics Journal, 2018, 10, 1-8.	2.0	2
81	Few-Mode Lensed Fibers. Journal of Lightwave Technology, 2018, 36, 5794-5799.	4.6	2
82	Optical Diffraction Tomography by Use of Optimization and Phase-Based Fidelity Criterion. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-9.	2.9	2
83	Slab Waveguide-to-Fiber Coupling based on Multiplane Light Conversion. , 2019, , .		2
84	All-optical clock recovery using self-pulsing two-section gain-coupled DFB lasers. , 0, , .		1
85	Experimental demonstration of coherent optical polarization multiple-input-multiple-output. , 2006, , .		1
86	Vectorial Modulational Instability in a Bismuth Fiber. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
87	Dispersion Compensation using All-Pass Digital IIR Filters. , 2007, , .		1
88	Phase-Regenerative DPSK Wavelength Conversion. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	1
89	Experimental Study of Pattern-Independent Phase Noise Accumulation in an All-Optical Clock Recovery Chain Based on Two-Section Gain-Coupled DFB Lasers. Journal of Lightwave Technology, 2008, 26, 1661-1670.	4.6	1
90	Control of FWM Phase-matching Condition Using the Brillouin Slow Light Effect in Fibers. , 2008, , .		1

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91	Silicon photonic crystal fiber. , 2010, , .		1
92	Long-distance mode-division multiplexed transmission using normalized adaptive frequency-domain equalization. , 2013, , .		1
93	Waveguide-Based Photonic Antenna Tweezer for Optical Trapping. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-7.	2.9	1
94	Optical Broadcasting and Steering by Demultiplexing Incoherent Spatial Modes. , 2020, , .		1
95	Ultrabroadband Polarization Insensitive Hybrid using Multiplane Light Conversion. , 2020, , .		1
96	A Reconfigurable Broadband Space-Mode Router using Multiplane Light Conversion. , 2020, , .		1
97	Self-pulsating DFB lasers for 60 GHz broadband wireless networks. , 2001, , .		0
98	180-Gb/s clock recovery using a multi-section gaincoupled distributed feedback laser. , 2005, , .		0
99	Experimental demonstration of differential polarization-phase-shift keying (DPolPSK). , 2006, , .		0
100	Nonlinear phase noise in polarization-division-multiplexed DPSK systems. , 2006, , .		0
101	All-Optical Regeneration of Phase Modulated Signals. , 2007, , .		0
102	Dispersion Compensation of up to 25,200ps/nm Using IIR Filtering. , 2008, , .		0
103	Coherent optical transmission for digital and analog applications. , 2009, , .		0
104	Robust generation of Kerr frequency combs with strong and localized spectral loss. , 2016, , .		0
105	Accurate measurement of total mode coupling in few mode fibers (FMFs) based on a modified spatial and spectral resolved (S^2) imaging system. , 2017, , .		0
106	Application of few-mode fibers for optical access networks and microwave photonics. , 2018, , .		0
107	Corrections to "Efficient Grating Couplers for Space Division Multiplexing Applications" [Nov/Dec 18 Art. no. 8200605]. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-1.	2.9	0
108	Training of Mixed-Signal Optical Convolutional Neural Networks With Reduced Quantization Levels. IEEE Access, 2021, 9, 56645-56652.	4.2	0

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109	Mode-Group Demultiplexers Using Thin-Film Filters. , 2020, , .		0
110	Impulse Response Characterization of a Commercial Multimode Fiber Using Superconducting Nanowire Single-Photon Detectors. Journal of Lightwave Technology, 2022, 40, 5107-5117.	4.6	0