

Jochen Schröder

List of Publications by Year in descending order

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106
papers

1,990
citations

218381

26
h-index

264894

42
g-index

106
all docs

106
docs citations

106
times ranked

1833
citing authors

#	ARTICLE	IF	CITATIONS
1	Observation of Eisenbudâ€™Wignerâ€™Smith states as principal modes in multimode fibre. Nature Photonics, 2015, 9, 751-757.	15.6	133
2	Roadmap on all-optical processing. Journal of Optics (United Kingdom), 2019, 21, 063001.	1.0	128
3	110x110 optical mode transfer matrix inversion. Optics Express, 2014, 22, 96.	1.7	120
4	Laser Frequency Combs for Coherent Optical Communications. Journal of Lightwave Technology, 2019, 37, 1663-1670.	2.7	96
5	Integrated optical auto-correlator based on third-harmonic generation in a silicon photonic crystal waveguide. Nature Communications, 2014, 5, 3246.	5.8	79
6	Phase-coherent lightwave communications with frequency combs. Nature Communications, 2020, 11, 201.	5.8	73
7	Passively mode-locked Raman fiber laser with 100 GHz repetition rate. Optics Letters, 2006, 31, 3489.	1.7	71
8	Repetition-rate-selective, wavelength-tunable mode-locked laser at up to 640 GHz. Optics Letters, 2009, 34, 3902.	1.7	60
9	High-Spectral-Efficiency Mode-Multiplexed Transmission Over Graded-Index Multimode Fiber. , 2018, , .		59
10	Optical control of arrays of photorefractive screening solitons. Optics Letters, 2003, 28, 438.	1.7	58
11	Frequency Comb-Based WDM Transmission Systems Enabling Joint Signal Processing. Applied Sciences (Switzerland), 2018, 8, 718.	1.3	56
12	Dynamics of an ultrahigh-repetition-rate passively mode-locked Raman fiber laser. Journal of the Optical Society of America B: Optical Physics, 2008, 25, 1178.	0.9	55
13	An optical FPGA: Reconfigurable simultaneous multi-output spectral pulse-shaping for linear optical processing. Optics Express, 2013, 21, 690.	1.7	50
14	Overhead-optimization of pilot-based digital signal processing for flexible high spectral efficiency transmission. Optics Express, 2019, 27, 24654.	1.7	47
15	1x11 few-mode fiber wavelength selective switch using photonic lanterns. Optics Express, 2014, 22, 2216.	1.7	46
16	Phase-sensitive amplification in silicon photonic crystal waveguides. Optics Letters, 2014, 39, 363.	1.7	46
17	Silicon-Chip-Based Real-Time Dispersion Monitoring for 640 Gbit/s DPSK Signals. Journal of Lightwave Technology, 2011, 29, 1790-1796.	2.7	44
18	Photonic chip-based all-optical XOR gate for 40 and 160 Gbit/s DPSK signals. Optics Letters, 2011, 36, 710.	1.7	43

#	ARTICLE	IF	CITATIONS
19	Phase-sensitive amplification of light in a $\tilde{\mu}^3$ photonic chip using a dispersion engineered chalcogenide ridge waveguide. <i>Optics Express</i> , 2013, 21, 7926.	1.7	41
20	10 Tb/s PM-64QAM Self-Homodyne Comb-Based Superchannel Transmission With 4% Shared Pilot Tone Overhead. <i>Journal of Lightwave Technology</i> , 2018, 36, 3176-3184.	2.7	41
21	High Spectral Efficiency PM-128QAM Comb-Based Superchannel Transmission Enabled by a Single Shared Optical Pilot Tone. <i>Journal of Lightwave Technology</i> , 2018, 36, 1318-1325.	2.7	36
22	High Spectral Efficiency Coherent Superchannel Transmission With Soliton Microcombs. <i>Journal of Lightwave Technology</i> , 2021, 39, 4367-4373.	2.7	34
23	Complete spatiotemporal characterization and optical transfer matrix inversion of a 420 mode fiber. <i>Optics Letters</i> , 2016, 41, 5580.	1.7	34
24	Mode multiplexed single-photon and classical channels in a few-mode fiber. <i>Optics Express</i> , 2013, 21, 28794.	1.7	33
25	One photon-per-bit receiver using near-noiseless phase-sensitive amplification. <i>Light: Science and Applications</i> , 2020, 9, 153.	7.7	33
26	All-Optical OFDM With Cyclic Prefix Insertion Using Flexible Wavelength Selective Switch Optical Processing. <i>Journal of Lightwave Technology</i> , 2014, 32, 752-759.	2.7	32
27	Reconfigurable spatially-diverse optical vector network analyzer. <i>Optics Express</i> , 2014, 22, 2706.	1.7	27
28	Non-degenerate two-photon absorption in silicon waveguides: analytical and experimental study. <i>Optics Express</i> , 2015, 23, 17101.	1.7	23
29	Flexible all-optical frequency allocation of OFDM subcarriers. <i>Optics Express</i> , 2014, 22, 1045.	1.7	22
30	Comparison of principal modes and spatial eigenmodes in multimode optical fibre. <i>Laser and Photonics Reviews</i> , 2017, 11, 1600259.	4.4	20
31	Dielectric Broadband Metasurfaces for Fiber Mode Multiplexed Communications. <i>Advanced Optical Materials</i> , 2019, 7, 1801679.	3.6	20
32	Multi-Impairment Monitoring at 320 Gb/s Based on Cross-Phase Modulation Radio-Frequency Spectrum Analyzer. <i>IEEE Photonics Technology Letters</i> , 2010, 22, 428-430.	1.3	19
33	Pump-degenerate phase-sensitive amplification in chalcogenide waveguides. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 780.	0.9	19
34	Superchannel engineering of microcombs for optical communications. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019, 36, 2013.	0.9	19
35	Multipass Performance of a Chip-Enhanced WSS for Nyquist-WDM Sub-Band Switching. <i>Journal of Lightwave Technology</i> , 2016, 34, 1824-1830.	2.7	18
36	Observation of high-contrast, fast intensity noise of a continuous wave Raman fiber laser. <i>Optics Express</i> , 2009, 17, 16444.	1.7	15

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37	Automatic dispersion compensation for 128Tb/s OTDM signal transmission using photonic-chip-based dispersion monitoring. Optics Express, 2010, 18, 25415.	1.7	14
38	Design, fabrication, and characterization of a highly nonlinear few-mode fiber. Photonics Research, 2019, 7, 1354.	3.4	14
39	Dynamic instability of self-induced bidirectional waveguides in photorefractive media. Optics Letters, 2005, 30, 750.	1.7	13
40	Aberration-free ultra-fast optical oscilloscope using a four-wave mixing based time-lens. Optics Communications, 2010, 283, 2611-2614.	1.0	13
41	Simultaneous multi-channel OSNR monitoring with a wavelength selective switch. Optics Express, 2010, 18, 22299.	1.7	13
42	12 b/s/Hz Spectral Efficiency Over the C-band Based on Comb-Based Superchannels. Journal of Lightwave Technology, 2019, 37, 411-417.	2.7	13
43	Joint Superchannel Digital Signal Processing for Effective Inter-Channel Interference Cancellation. Journal of Lightwave Technology, 2020, 38, 5676-5684.	2.7	13
44	First demonstration of principal modes in a multimode fibre. , 2014, , .		10
45	Counterpropagating dipole-mode vector soliton. Optics Letters, 2005, 30, 1042.	1.7	9
46	OSNR Monitoring of a 1.28 Tbaud Signal by Interferometry Inside a Wavelength-Selective Switch. Journal of Lightwave Technology, 2011, 29, 1542-1546.	2.7	9
47	Look-up Table based Pre-distortion for Transmitters Employing High-Spectral-Efficiency Modulation Formats. , 2020, , .		9
48	Model-Based End-to-End Learning for WDM Systems With Transceiver Hardware Impairments. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-14.	1.9	9
49	Spectrum-Sliced Microwave-Photonic Filter Based on Fourier Transform of Modified Optical Spectrum. IEEE Photonics Technology Letters, 2015, 27, 1422-1425.	1.3	8
50	Applications of LCoS-Based Programmable Optical Processors. , 2014, , .		7
51	Periodicity-Enabled Size Reduction of Symbol Based Predistortion for High-Order QAM. Journal of Lightwave Technology, 2022, 40, 6168-6178.	2.7	7
52	Polarization-resolved cross-correlated (C ²) imaging of a photonic bandgap fiber. Optics Express, 2016, 24, 27785.	1.7	6
53	Elliptical-Core Highly Nonlinear Few-Mode Fiber Based OXC for WDM-MDM Networks. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-11.	1.9	6
54	Interplay of four-wave mixing processes with a mixed coherent-incoherent pump. Optics Express, 2010, 18, 25833.	1.7	5

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55	Record-sensitivity Gb/s receiver for free-space applications based on phase-sensitive amplification. , 2019, , .		5
56	Flexible All-Optical OFDM using WSSs. , 2013, , .		5
57	Photonic Chip-Based Simultaneous Multi-Impairment Monitoring for Phase-Modulated Optical Signals. Journal of Lightwave Technology, 2010, , .	2.7	4
58	LCoS-based devices for MDM. , 2015, , .		4
59	Performance Monitoring for Live Systems with Soft FEC and Multilevel Modulation. Journal of Lightwave Technology, 2020, , 1-1.	2.7	4
60	Photonic-Chip-Based Ultrafast Waveform Analysis and Optical Performance Monitoring. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 834-846.	1.9	3
61	All-optical hash code generation and verification for low latency communications. Optics Express, 2013, 21, 23873.	1.7	3
62	6 port 3 λ –3 Wavelength Selective Cross-Connect by Software-Only Reprogramming of a 1xN Wavelength Selective Switch. , 2015, , .		3
63	Dual-Comb Swept Wavelength Interferometry. , 2020, , .		3
64	Characterisation of a Coupled-Core Fiber Using Dual-Comb Swept-Wavelength Interferometry. , 2021, , .		3
65	Symbol-Based Supervised Learning Predistortion for Compensating Transmitter Nonlinearity. , 2021, , .		3
66	Power Efficient Communications Employing Phase Sensitive Pre-Amplified Receiver. IEEE Photonics Technology Letters, 2022, 34, 3-6.	1.3	3
67	<title>Dynamic instability of counterpropagating self-trapped beams in photorefractive media</title> , , 2006, , .		2
68	LCOS based waveshaper technology for optical signal processing and performance monitoring. , 2012, , .		2
69	Reconfigurable linear combination of phase-and-amplitude coded optical signals. Optics Express, 2014, 22, 2609.	1.7	2
70	Experimental Investigation of Link Impairments in Pilot Tone Aided Superchannel Transmission. IEEE Photonics Technology Letters, 2019, 31, 459-462.	1.3	2
71	Experimental Demonstration of 8-Dimensional Voronoi Constellations with 65,536 and 16,777,216 Symbols. , 2021, , .		2
72	Spectral Interferometry with Frequency Combs. Micromachines, 2022, 13, 614.	1.4	2

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73	Chromatic dispersion compensation of an OCT system with a programmable spectral filter. , 2011, , .		1
74	Breaking the Tbit/s Barrier: Higher Bandwidth Optical Processing. Optics and Photonics News, 2012, 23, 32.	0.4	1
75	Mode multiplexing, characterization and processing using a Spatial Light Modulator. , 2013, , .		1
76	Flexible All-Optical OFDM using WSSs. , 2013, , .		1
77	Applications of spatial light modulators for mode-division multiplexing. , 2014, , .		1
78	Photonic applications of spatial photorefractive solitons - soliton lattices, bidirectional waveguides and waveguide couplers. , 2003, , .		1
79	Multi-Channel Equalization for Comb-Based Systems. , 2020, , .		1
80	Ultra-high repetition-rate passively mode-locked Raman fiber laser. , 2006, , .		0
81	Noise-characterization of an ultra-fast Raman fiber laser. , 2008, , .		0
82	Characterization of a passively mode-locked Raman fiber laser. , 2008, , .		0
83	Wavelength and repetition rate tunable mode-locked laser at up to 640 GHz using reconfigurable wavelength selective switch. , 2009, , .		0
84	Tunable, repetition rate selective, passive mode-locked fibre laser with repetition rates up to 640 GHz. Proceedings of SPIE, 2010, , .	0.8	0
85	Automatic higher-order dispersion measurement and compensation of a 1.28 Tbaud signal. , 2010, , .		0
86	Simultaneous multi-channel OSNR monitoring at 40 Gb/s OOK and DPSK using a wavelength selective switch. , 2010, , .		0
87	Photonic chip based all-optical logic gate for 40 Gbit/s and 160 Gbit/s DPSK signals. , 2010, , .		0
88	Silicon chip based instantaneous dispersion monitoring for a 640 Gbit/s DPSK signal. , 2010, , .		0
89	Emulation of modulated data channels in optical networks using a programmable optical processor. , 2011, , .		0
90	Phase and amplitude optimization in an optical coherence tomography system using a programmable spectral filter. , 2011, , .		0

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91	Multi-order, automatic dispersion compensation for 1.28 Terabaud signals. , 2012, , .		0
92	Automatic DGD and GVD compensation at 640ÅGb/s based on scalar radio-frequency spectrum measurement. Applied Optics, 2013, 52, 1919.	0.9	0
93	Mode Transfer Matrix of Multimode Fibers. , 2014, , .		0
94	Spatial light modulators for space-division multiplexing. , 2014, , .		0
95	Phase-Sensitive Amplification in Silicon and Chalcogenide Waveguides. , 2016, , .		0
96	Principal modes in 50µm graded-index multimode fiber. , 2016, , .		0
97	Phase Noise Characterization and EEPN of a Full C-Band Tunable Laser in Coherent Optical Systems. IEEE Photonics Technology Letters, 2019, 31, 1991-1994.	1.3	0
98	On-chip all optical error detection for ultra-low latency communications. , 2013, , .		0
99	Wavelength selective switching and pulse-shaping for mode-division multiplexing using LCOS-technology. , 2014, , .		0
100	Cross Nonlinear Absorption in Silicon Waveguides. , 2015, , .		0
101	Non-degenerate Two-photon Absorption in Silicon Waveguides. , 2015, , .		0
102	Principal modes in multimode fibre: Modes with minimal mode dispersion. , 2016, , .		0
103	Frequency Comb Based High-Spectral Efficiency Transmission. , 2019, , .		0
104	One photon per bit communication for free-space optical links. , 2020, , .		0
105	Multi-Channel Comb Modulation in Single Waveguide Structures. , 2020, , .		0
106	Required and Received SNRs in Coded Modulation. , 2020, , .		0