

Nelson Muga

List of Publications by Year in descending order

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99
papers

683
citations

566801

15
h-index

676716

22
g-index

100
all docs

100
docs citations

100
times ranked

458
citing authors

#	ARTICLE	IF	CITATIONS
1	Full polarization random drift compensation method for quantum communication. Optics Express, 2022, 30, 6907.	1.7	6
2	Demonstration of an Algorithm for Quantum State Generation in Polarization-Encoding QKD Systems. , 2022, , .		1
3	Homodyne Noise Characterization in Quantum Random Number Generators. , 2021, , .		1
4	A Review of Self-Coherent Optical Transceivers: Fundamental Issues, Recent Advances, and Research Directions. Applied Sciences (Switzerland), 2021, 11, 7554.	1.3	11
5	Towards a Sustainable Green Design for Next-Generation Networks. Wireless Personal Communications, 2021, 121, 1123-1138.	1.8	3
6	6G CloudNet: Towards a Distributed, Autonomous, and Federated AI-Enabled Cloud and Edge Computing. Computer Communications and Networks, 2021, , 251-283.	0.8	3
7	Secret key rate of multi-ring M-APSK continuous variable quantum key distribution. Optics Express, 2021, 29, 38669.	1.7	14
8	Virtual Carrier Assisted Self-Coherent Detection Employing DC-Value Method. , 2021, , .		4
9	Towards Enhanced Mobile Broadband Communications: A Tutorial on Enabling Technologies, Design Considerations, and Prospects of 5G and beyond Fixed Wireless Access Networks. Applied Sciences (Switzerland), 2021, 11, 10427.	1.3	17
10	Impact of the carrier contribution factor in the self-coherent DC-value method. Optics Express, 2021, 29, 41234.	1.7	2
11	Characterization of a Quantum Random Number Generator Based on Vacuum Fluctuations. Applied Sciences (Switzerland), 2021, 11, 7413.	1.3	6
12	200 G Outdoor Free-Space-Optics Link Using a Single-Photodiode Receiver. Journal of Lightwave Technology, 2020, 38, 394-400.	2.7	29
13	Practical Imperfections Affecting the Performance of CV-QKD Based on Coherent Detection. , 2020, , .		1
14	DSP optimization for simplified coherent receivers. , 2020, , .		0
15	Simple and robust transmit diversity based free-space optical communications for 5G and beyond networks. Optics Communications, 2020, 476, 126306.	1.0	6
16	Quantum Enabled Private Recognition of Composite Signals in Genome and Proteins. , 2020, , .		1
17	Generation and Distribution of Quantum Oblivious Keys for Secure Multiparty Computation. Applied Sciences (Switzerland), 2020, 10, 4080.	1.3	10
18	Optical Signal Phase Retrieval With Low Complexity DC-Value Method. Journal of Lightwave Technology, 2020, 38, 4205-4212.	2.7	15

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19	Reversal operator to compensate polarization random drifts in quantum communications. Optics Express, 2020, 28, 5035.	1.7	11
20	FPGA-assisted state-of-polarisation generation for polarisation-encoded optical communications. IET Optoelectronics, 2020, 14, 350-355.	1.8	5
21	Role of Device Imperfections on the Practical Performance of Continuous-Variable Quantum Key Distribution Systems. , 2019, , .		2
22	Adaptive Stokes-Based Polarization Demultiplexing for Long-Haul Multi-Subcarrier Systems. IEEE Photonics Technology Letters, 2019, 31, 759-762.	1.3	11
23	The Impact of Fiber Random Birefringence in Polarization-Encoded Quantum Communications. , 2019, , .		2
24	Self-coherent optical detection for access and metro networks. , 2019, , .		5
25	200 Gbit/s Free-Space Optics Transmission Using a Kramers-Kronig Receiver. , 2019, , .		8
26	Digital monitoring and compensation of MDL based on higher-order Poincaré spheres. Optics Express, 2019, 27, 19996.	1.7	2
27	Deterministic State-of-Polarization Generation for Polarization-Encoded Optical Communications. , 2019, , .		0
28	Optical and Digital Key Enabling Techniques for SDM-Based Optical Networks. , 2018, , .		0
29	Generation and Distribution of Oblivious Keys through Quantum Communications. , 2018, , .		2
30	Reduced-complexity algorithm for space-demultiplexing based on higher-order Poincaré spheres. Optics Express, 2018, 26, 13506.	1.7	2
31	PMD tolerance in Stokes space based polarization de-multiplexing algorithms. Optical and Quantum Electronics, 2017, 49, 1.	1.5	7
32	Advanced digital signal processing techniques based on Stokes space analysis for high-capacity coherent optical systems. , 2017, , .		0
33	Nonlinear Mitigation of a 400G Frequency-Hybrid Superchannel for the 62.5-GHz Slot. Journal of Lightwave Technology, 2017, 35, 3963-3973.	2.7	5
34	Quantum communications: An engineering approach. , 2017, , .		3
35	Coherent UDWDM Transceivers Based on Adaptive Stokes Space Polarization Demultiplexing in Real-Time. , 2017, , .		0
36	Space-demultiplexing based on higher-order Poincaré spheres. Optics Express, 2017, 25, 3899.	1.7	11

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37	Adaptive Stokes Space Based Polarization Demultiplexing for Flexible UDWDM Metro-Access Networks. , 2017, , .		6
38	400G Frequency-Hybrid Superchannel for the 62.5 GHz Slot. , 2017, , .		0
39	MIMO processing based on higher-order Poincaré spheres. , 2017, , .		0
40	Continuous Control of Random Polarization Rotations for Quantum Communications. Journal of Lightwave Technology, 2016, , 1-1.	2.7	10
41	Multi-carrier high-speed optical communication systems supported by digital signal processing. , 2016, , .		0
42	Using the Stokes space for equalization of polarization impairments in digital coherent optical receivers. , 2016, , .		1
43	Flexible and hybrid bidirectional optical metro networking using adaptive stokes space polarization demultiplexing. , 2016, , .		0
44	Low Complexity Advanced DBP Algorithms for Ultra-Long-Haul 400 G Transmission Systems. Journal of Lightwave Technology, 2016, 34, 1793-1799.	2.7	25
45	Implementation of a two-state quantum bit commitment protocol in optical fibers. Journal of Optics (United Kingdom), 2016, 18, 015202.	1.0	10
46	Assessment of nonlinear equalization algorithms for coherent optical transmission systems using an FPGA. , 2015, , .		0
47	Experimental demonstration of the parallel split-step method in ultra-long-haul 400G transmission. , 2015, , .		6
48	All-Optical Packet Alignment Using Polarization Attraction Effect. IEEE Photonics Technology Letters, 2015, 27, 541-544.	1.3	13
49	Polarization Effects on the Non-Linearity of a Highly Non-Linear Fiber. Fiber and Integrated Optics, 2015, 34, 3-13.	1.7	1
50	Optimizing polarization related dynamic equalization in coherent optical communications. , 2015, , .		0
51	Experimental Assessment of the Adaptive Stokes Space-Based Polarization Demultiplexing for Optical Metro and Access Networks. Journal of Lightwave Technology, 2015, 33, 4968-4974.	2.7	19
52	Four-Wave Mixing in Microwires to All-Optical Signal Processing in Mode-Division Multiplexing Systems. Fiber and Integrated Optics, 2015, 34, 38-52.	1.7	0
53	Switching in multicore fibers using flexural acoustic waves. Optics Express, 2015, 23, 26313.	1.7	17
54	Extended Kalman Filter vs. Geometrical Approach for Stokes Space-Based Polarization Demultiplexing. Journal of Lightwave Technology, 2015, 33, 4826-4833.	2.7	30

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55	Real-time digital signal processing for coherent optical systems. , 2015, , .		1
56	A brief review on quantum bit commitment. Proceedings of SPIE, 2014, , .	0.8	3
57	Using single photons to improve fiber optic communication systems. Proceedings of SPIE, 2014, , .	0.8	0
58	Calculation of the number of bits required for the estimation of the bit error ratio. , 2014, , .		3
59	Mode conversion based on the acousto-optic effect for mode division multiplexed transmission. , 2014, , .		0
60	Adaptive 3-D Stokes Space-Based Polarization Demultiplexing Algorithm. Journal of Lightwave Technology, 2014, 32, 3290-3298.	2.7	50
61	Dynamic method for Stokes space based polarization demultiplexing of advanced modulation formats. , 2014, , .		0
62	Tunable Mode Conversion Using Acoustic Waves in Optical Microwires. Journal of Lightwave Technology, 2014, 32, 3257-3265.	2.7	17
63	Digital equalization of optical nonlinearities in very high-speed optical communication systems. , 2014, , .		1
64	Clock and carrier recovery in high-speed coherent optical communication systems. , 2014, , .		1
65	Using quantum technologies to improve fiber optic communication systems. , 2013, 51, 42-48.		12
66	Digital PDL Compensation in 3D Stokes Space. Journal of Lightwave Technology, 2013, 31, 2122-2130.	2.7	41
67	Equalization of fiber impairments using high-speed digital signal processing. , 2013, , .		0
68	Experimental characterization of a highly nonlinear fiber. Proceedings of SPIE, 2013, , .	0.8	0
69	Wavelength-shift-free Mamyshev regenerator. Proceedings of SPIE, 2013, , .	0.8	1
70	Enabling quantum communications through accurate photons polarization control. , 2013, , .		1
71	Nonlinear polarizers in low-birefringence optical fibers. Proceedings of SPIE, 2013, , .	0.8	0
72	Pump and filtering optimization in Mamyshev regenerator. , 2013, , .		0

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73	EFFECTIVE NONLINEAR PARAMETER MEASUREMENT USING FWM IN A HIGHLY NONLINEAR FIBER. , 2013, , .		0
74	Simplified Volterra Series Nonlinear Equalizer by Intra-Channel Cross-Phase Modulation Oriented Pruning. , 2013, , .		9
75	Stokes Space Based Digital PolDemux for Polarization Switched-QPSK Signals. , 2013, , .		7
76	Polarization-dependent gain in Raman amplification based all-optical polarization control schemes. , 2012, , .		0
77	Engineering quantum communication systems. Proceedings of SPIE, 2012, , .	0.8	0
78	Critical issues in polarization encoded quantum key distribution systems. , 2011, , .		1
79	Optimization of polarization control schemes for QKD systems. , 2011, , .		2
80	Single-photon source using stimulated FWM in optical fibers for quantum communication. Proceedings of SPIE, 2011, , .	0.8	4
81	QBER Estimation in QKD Systems With Polarization Encoding. Journal of Lightwave Technology, 2011, 29, 355-361.	2.7	25
82	Broadband polarization pulling using Raman amplification. Optics Express, 2011, 19, 18707.	1.7	30
83	Evolution of first-order sidebands from multiple FWM processes in HiBi optical fibers. Optics Communications, 2011, 284, 3408-3415.	1.0	8
84	Optical quantum communications: an experimental approach. Proceedings of SPIE, 2011, , .	0.8	4
85	Polarization-entangled photon pairs using spontaneous four-wave mixing in a fiber loop. , 2011, , .		3
86	Effective Nonlinear Parameter Measurement Using FWM in Optical Fibers in a Low Power Regime. IEEE Journal of Quantum Electronics, 2010, 46, 285-291.	1.0	19
87	Evolution of the degree of co-polarization in high-birefringence fibers. Optics Communications, 2010, 283, 2125-2132.	1.0	4
88	Generalized analysis of the polarization evolution in high-birefringence fibers. , 2010, , .		0
89	Non-Gaussian ASE Noise in Raman Amplification Systems. Journal of Lightwave Technology, 2009, 27, 3389-3398.	2.7	12
90	Influence of the Stimulated Raman Scattering on the Four-Wave Mixing Process in Birefringent Fibers. Journal of Lightwave Technology, 2009, 27, 4979-4988.	2.7	24

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91	Non-white noise generation method for ASE noise simulation in systems with Raman amplification. , 2009, , .		0
92	Polarization Scattering Property of Cascaded Polarization Controllers. ETRI Journal, 2007, 29, 838-840.	1.2	0
93	Uniform Polarization Scattering With Fiber-Coil-Based Polarization Controllers. Journal of Lightwave Technology, 2006, 24, 3932-3943.	2.7	19
94	Ferroelectric Phase in Glycinium Phosphite Studied by Raman Scattering. Ferroelectrics, 2005, 320, 83-89.	0.3	3
95	Polarization Mode Dispersion in High-Speed Optical Communication Systems. Fiber and Integrated Optics, 2005, 24, 261-285.	1.7	15
96	Lattice Dynamics and Negative Search for Pyroelectricity in Sr(1 $\hat{\sim}$ 1.5x)LaxTiO3Ceramics. Ferroelectrics, 2005, 318, 147-153.	0.3	3
97	Dielectric Properties and Lattice Dynamics in Betaine Calcium Perchlorate Monohydrate. Ferroelectrics, 2005, 314, 223-232.	0.3	0
98	Exchange bias of MnPt/CoFe films prepared by ion beam deposition. Journal of Applied Physics, 2004, 95, 6317-6321.	1.1	16
99	Phase Transition in Betaine Cadmium Chloride Monohydrate. Ferroelectrics, 2004, 302, 127-131.	0.3	0