Cristian Antonelli

List of Publications by Year
in descending order

111 papers	2,613 citations	236925 25 h-index	206112 48 g-index
111 all docs	111 docs citations	111 times ranked	1433 citing authors

#	Article	IF	Citations
1	The Ergodic GN Model for Space-Division Multiplexing With Strong Mode Coupling. Journal of Lightwave Technology, 2022, 40, 3263-3276.	4.6	9
2	Roadmap on multimode photonics. Journal of Optics (United Kingdom), 2022, 24, 083001.	2.2	27
3	Simultaneous Decoherence and Mode Filtering in Quantum Channels: Theory and Experiment. Physical Review Applied, 2021, 15, .	3.8	6
4	Near-Zero Modal-Dispersion (NEMO) Coupled-Core Multi-Core Fibers. Journal of Lightwave Technology, 2021, 39, 7517-7528.	4.6	3
5	Fundamental Limits to the Measurement of the Polarization of Classical Light. Journal of Lightwave Technology, 2021, 39, 2387-2396.	4.6	2
6	Characterization and stability measurement of deployed multicore fibers for quantum applications. Photonics Research, 2021, 9, 1992.	7.0	8
7	Distributed measurement of birefringence in uncoupled multicore fibers. , 2021, , .		1
8	A Model of the Nonlinear Interference in Space-Division Multiplexed Systems with Arbitrary Modal Dispersion. , 2021, , .		2
9	RSOA-based colorless multilevel transmitter with electrical signal predistortion. Optics Communications, 2020, 456, 124654.	2.1	2
10	High-capacity direct-detection systems. , 2020, , 419-441.		14
11	Stokes-Space Analysis of Modal Dispersion of SDM Fibers With Mode-Dependent Loss: Theory and Experiments. Journal of Lightwave Technology, 2020, 38, 1668-1677.	4.6	24
12	Reproducing the most general quantum channel in the lab: is it possible?. , 2020, , .		0
13	Exploring classical correlations in noise to recover quantum information using local filtering. New Journal of Physics, 2020, 22, 073037.	2.9	9
14	Dynamic Skew Measurements in a Deployed 4-Core Fiber. , 2020, , .		5
15	Role of polarization-mode coupling in the crosstalk between cores of weakly-coupled multi-core fibers. Optics Express, 2020, 28, 12847.	3.4	23
16	Enhancing the Kramersâ€"Kronig receiver via dispersion-based spatial diversity. Optics Letters, 2020, 45, 3494.	3.3	3
17	Entanglement preservation based on classical correlations. , 2020, , .		0
18	Upper bound on mutual quantum information between two partially mixed qubits. , 2020, , .		0

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19	Transmission over Randomly-Coupled 4-Core Fiber in Field-Deployed Multi-Core Fiber Cable. , 2020, , .		10
20	Directional asymmetry of quantum channels. , 2020, , .		0
21	Simple method for optimizing the DC bias of Kramers-Kronig receivers based on AC-coupled photodetectors. Optics Express, 2020, 28, 4067.	3.4	8
22	Space-Division Multiplexing. Springer Handbooks, 2020, , 353-393.	0.6	6
23	Mapping quantum channel decoherence. , 2020, , .		0
24	Exploiting flexible functional split in converged software defined access networks. Journal of Optical Communications and Networking, 2019, 11, 536.	4.8	22
25	Use of the Kramersâ€"Kronig receiver with a low-cost dual-drive Machâ€"Zehnder transmitter. Optics Communications, 2019, 453, 124419.	2.1	2
26	Nonlinear propagation equations in fibers with multiple modesâ€"Transitions between representation bases. APL Photonics, 2019, 4, 022806.	5.7	9
27	Field-Deployed Multi-Core Fiber Testbed. , 2019, , .		44
28	Network Solutions for CoMP Coordinated Scheduling. IEEE Access, 2019, 7, 176624-176633.	4.2	13
29	Kramersâ€"Kronig receivers. Advances in Optics and Photonics, 2019, 11, 480.	25.5	76
30	Kramersâ€"Kronig receivers: erratum. Advances in Optics and Photonics, 2019, 11, 826.	25.5	0
31	Kramersâ€"Kronig PAM Transceiver and Two-Sided Polarization-Multiplexed Kramersâ€"Kronig Transceiver. Journal of Lightwave Technology, 2018, 36, 468-475.	4.6	26
32	Kramersâ€"Kronig Receivers for 100-km Datacenter Interconnects. Journal of Lightwave Technology, 2018, 36, 79-89.	4.6	119
33	Software Defined 5G Converged Access as a viable Techno-Economic Solution. , 2018, , .		17
34	The Kramersâ€"Kronig Receiver. , 2018, , .		8
35	Transmission in 125-km SMF with 3.9 bit/s/Hz spectral efficiency using a single-drive MZM and a direct-detection Kramers-Kronig receiver without optical CD compensation. , 2018, , .		11
36	Kramers-Kronig coherent receiver. , 2018, , .		0

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37	The Enhanced Kramers Kronig Receiver. , 2018, , .		13
38	Polarization Multiplexing With the Kramers-Kronig Receiver. Journal of Lightwave Technology, 2017, 35, 5418-5424.	4.6	63
39	Digital Coherence Enhancement in Space-Division Multiplexed Transmission. , 2017, , .		0
40	Propagation effects in few-mode fibers. , 2017, , .		4
41	Nonlinear interference noise in space-division multiplexed transmission through optical fibers. Optics Express, 2017, 25, 13055.	3.4	49
42	218-Gb/s Single-Wavelength, Single-Polarization, Single-Photodiode Transmission Over 125-km of Standard Singlemode Fiber Using Kramers-Kronig Detection. , 2017, , .		51
43	Kramers-Kronig PAM transceiver. , 2017, , .		23
44	Nonlinear Propagation in Fibers for Space Division Multiplexing. , 2017, , .		0
45	The Kramersâ€“Kronig Receiver. , 2017, , .		0
46	Kramersâ€“Kronig coherent receiver. Optica, 2016, 3, 1220.	9.3	494
47	Inter-modal nonlinear interference in SDM systems and its impact on information capacity. , 2016, , .		1
48	Efficient and Accurate Modeling of Multiwavelength Propagation in SOAs: A Generalized Coupled-Mode Approach. Journal of Lightwave Technology, 2016, 34, 2188-2197.	4.6	4
49	Modeling of Nonlinear Propagation in Space-Division Multiplexed Fiber-Optic Transmission. Journal of Lightwave Technology, 2016, 34, 36-54.	4.6	140
50	Scaling of inter-channel nonlinear interference noise and capacity with the number of strongly coupled modes in SDM systems. , 2016, , .		7
51	Delay spread in strongly coupled multi-core fibers for SDM transmission. , 2015, , .		3
52	The delay spread in fibers for SDM transmission: dependence on fiber parameters and perturbations. Optics Express, 2015, 23, 2196.	3.4	54
53	Intensity impulse response of SDM links. Optics Express, 2015, 23, 5738.	3.4	45
54	Analytic Study of the Modulation Response of Reflective Semiconductor Optical Amplifiers. Journal of Lightwave Technology, 2015, 33, 4367-4376.	4.6	18

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55	Modeling and performance metrics of MIMO-SDM systems with different amplification schemes in the presence of mode-dependent loss. Optics Express, 2015, 23, 2203.	3.4	40
56	Nonlinear propagation in Space-Division Multiplexed fiber-optic transmission. , 2015, , .		1
57	Criticality of assumptions in the study of performance degradation caused by mode-dependent loss in SDM systems. , 2014, , .		0
58	Modeling Raman amplification in multimode and multicore fibers. , 2014, , .		2
59	Assessing the Effects of Mode-Dependent Loss in Space-Division Multiplexed Systems. Journal of Lightwave Technology, 2014, 32, 1317-1322.	4.6	26
60	Degree of Coherence in Space-Division Multiplexed Transmission. Journal of Lightwave Technology, 2014, 32, 63-69.	4.6	5
61	Quantum Limits on the Energy Consumption of Optical Transmission Systems. Journal of Lightwave Technology, 2014, 32, 1853-1860.	4.6	13
62	Characterization of mode-dependent loss in SDM systems. , 2014, , .		3
63	Analytical expression for the modulation bandwidth of a reflective semiconductor optical amplifier. , 2014, , .		1
64	Raman amplification in multimode fibers with random mode coupling. Optics Letters, 2013, 38, 1188.	3.3	30
65	Random coupling between groups of degenerate fiber modes in mode multiplexed transmission. Optics Express, 2013, 21, 9484.	3.4	65
66	Modeling linear and nonlinear transmission in multi-mode fibers. Proceedings of SPIE, 2013, , .	0.8	0
67	Reduced Model for the Nonlinear Response of Reflective Semiconductor Optical Amplifiers. IEEE Photonics Technology Letters, 2013, 25, 2243-2246.	2.5	70
68	Nonlinear Equations of Propagation in Multi-Mode Fibers with Random Mode Coupling. , 2013, , .		3
69	Nonlinear Propagation in Multimode Fibers with Random Mode Coupling. , 2013, , .		1
70	Stokes-space analysis of modal dispersion in fibers with multiple mode transmission. Optics Express, 2012, 20, 11718.	3.4	133
71	Coupled Manakov equations in multimode fibers with strongly coupled groups of modes. Optics Express, 2012, 20, 23436.	3.4	127
72	Optical Nonlinearity in Multi-Mode Fibers with Random Mode Coupling. , 2012, , .		1

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73	Modeling of linear and nonlinear coupling in multiple-mode fiber optic transmission with MIMO signal processing. , 2012, , .		1
74	Mode-division multiplexing for next-generation optical transport. , 2012, , .		2
75	Nonlinear propagation in multi-mode fibers in the strong coupling regime. Optics Express, 2012, 20, 11673.	3.4	134
76	Coincidence Rates for Photon Pairs in WDM Environment. Journal of Lightwave Technology, 2011, 29, 324-329.	4.6	10
77	Unified Treatment of Forward and Backward Propagating Polarized Lightwaves. Journal of Lightwave Technology, 2011, 29, 642-655.	4.6	9
78	Nonlocal compensation of polarization mode dispersion in the transmission of polarization entangled photons. Optics Express, 2011, 19, 1728.	3.4	38
79	Statistics of polarization dependent loss in an installed long-haul WDM system. Optics Express, 2011, 19, 6790.	3.4	44
80	Loss of polarization entanglement in a fiber-optic system with polarization mode dispersion in one optical path. Optics Letters, 2011, 36, 43.	3.3	54
81	Autocorrelation of the polarization-dependent loss in fiber routes. Optics Letters, 2011, 36, 4005.	3.3	10
82	Abrupt disappearance of entangelement in fibers with polarization mode dispersion. , 2011, , .		0
83	Sudden Death of Entanglement Induced by Polarization Mode Dispersion. Physical Review Letters, 2011, 106, 080404.	7.8	55
84	Transmission of Polarization Entangled Photons in Fiber-optics Networks. , 2011, , .		0
85	Method for characterizing single photon detectors in saturation regime by cw laser. Optics Express, 2010, 18, 5906.	3.4	10
86	Disappearance of polarization entanglement due to the relative orientation of two fiber's PMD vectors. , 2010, , .		1
87	Propagation of polarization-entangled photon pairs in optical fibers. , 2010, , .		0
88	Quantum bit-error rate in plug-and-play quantum key distribution systems caused by axial magnetic fields. Fortschritte Der Physik, 2009, 57, 1084-1093.	4.4	1
89	Periodic locking of chaos in semiconductor lasers with optical feedback. Optics Communications, 2009, 282, 2917-2920.	2.1	13
90	Chaos self-synchronization in a semiconductor laser. Optics Letters, 2009, 34, 1387.	3.3	6

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91	Impairments Due to Polarization-Mode Dispersion in Chaos-Encrypted Communication Systems. IEEE Photonics Technology Letters, 2009, 21, 1387-1389.	2.5	6
92	Chaos Encrypted Optical Communication System. Fiber and Integrated Optics, 2008, 27, 308-316.	2.5	1
93	A Model for Temporal Evolution of PMD. IEEE Photonics Technology Letters, 2008, 20, 1012-1014.	2.5	7
94	Effect of fiber-spinning profile on plug-and-play quantum-key distribution systems. Optics Letters, 2008, 33, 1096.	3.3	2
95	Theory of the effect of geomagnetic field on plug-and-play schemes for fiber-based quantum key distribution systems. Optics Letters, 2008, 33, 1476.	3.3	6
96	Nonintrusive characterization of long-fiber-link birefringence. Optics Letters, 2008, 33, 2740.	3.3	1
97	A non-intrusive characterization of long fiber link birefringence. , 2008, , .		0
98	Duration of PMD-induced system outages. , 2008, , .		1
99	Statistics of the polarization mode dispersion dynamics. Optics Letters, 2007, 32, 3032.	3.3	8
100	Intracavity pulse dynamics and stability for passively mode-locked lasers. Optics Express, 2007, 15, 5919.	3.4	25
101	Correction to "Comparison of System Penalties From First and Multiorder Polarization-Mode Dispersion". IEEE Photonics Technology Letters, 2007, 19, 628-628.	2.5	0
102	Theoretical Characterization and System Impact of the Hinge Model of PMD. Journal of Lightwave Technology, 2006, 24, 4064-4074.	4.6	30
103	Pulse broadening due to polarization mode dispersion with first-order compensation. Optics Letters, 2005, 30, 1626.	3.3	6
104	Outage probabilities for fiber routes with finite number of degrees of freedom. IEEE Photonics Technology Letters, 2005, 17, 345-347.	2.5	32
105	PMD-induced penalty statistics in fiber links. IEEE Photonics Technology Letters, 2005, 17, 1013-1015.	2.5	16
106	Comparison of system penalties from first- and multiorder polarization-mode dispersion. IEEE Photonics Technology Letters, 2005, 17, 1650-1652.	2.5	28
107	Broad-band PMD mitigation with a single polarization controller. IEEE Photonics Technology Letters, 2005, 17, 2574-2576.	2.5	1
108	A statistical theory of PMD-induced power penalty. , 2005, , .		2

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109	Statistics of the DGD in PMD Emulators. IEEE Photonics Technology Letters, 2004, 16, 1840-1842.	2.5	30
110	Non-Maxwellian probability density function of fibers with lumped polarization mode dispersion elements. Optics Letters, 2004, 29, 1057.	3.3	4
111	Characterization of the time dependence of polarization mode dispersion. Optics Letters, 2004, 29, 2599.	3.3	20