

# Roberto Llorente SÃ¡ez

## List of Publications by Year in descending order

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120  
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citations

430874

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120  
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120  
docs citations

120  
times ranked

827  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical combs and multicore fiber as technology enablers for next-generation datacenter infrastructure. , 2022, , .		1
2	Remote Photonic THZ Generation Using an Optical Frequency Comb and Multicore Fiber. Journal of Lightwave Technology, 2021, 39, 7621-7627.	4.6	2
3	Compact K-band Photonic Beamsteerer Assisted with Weakly-Coupled Multi-Core Fiber. , 2021, , .		1
4	Photonic Frequency Conversion of OFDM Microwave Signals in a Wavelength-Scale Optomechanical Cavity. Laser and Photonics Reviews, 2021, 15, 2100175.	8.7	5
5	Integrated Wireless-Optical Backhaul and Fronthaul Provision Through Multicore Fiber. IEEE Access, 2020, 8, 146915-146922.	4.2	2
6	Multi-Beamforming Provided by Dual-Wavelength True Time Delay PIC and Multicore Fiber. Journal of Lightwave Technology, 2020, 38, 5311-5317.	4.6	14
7	Supersymmetry in the time domain and its applications in optics. Nature Communications, 2020, 11, 813.	12.8	19
8	Dual-Wavelength Integrated K-band Multi-Beamformer operating over 1-km 7-core Multicore Fiber. , 2020, , .		1
9	Dual-wavelength photonic beamformer for OFDM and single-carrier broadband wireless operating over 1-km 7-core fiber fronthaul. , 2020, , .		1
10	IMPACT OF COVID-19 LOCKDOWN IN TELECOMMUNICATIONS ENGINEERING COMPETENCY-BASED ALUMNI RANKING. , 2020, , .		0
11	Generalized Method to Describe the Propagation of Pulses in Classical and Specialty Optical Fibers. IEEE Photonics Journal, 2019, 11, 1-12.	2.0	0
12	Experimental Demonstration of mm-Wave 5G NR Photonic Beamforming Based on ORRs and Multicore Fiber. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 2928-2935.	4.6	29
13	Multi-core Fiber Technology supporting MIMO and Photonic Beamforming in 5G Multi-Antenna Systems : (Invited paper). , 2019, , .		5
14	Performance analysis of multiple radio-access provision in a multicore-fibre optical fronthaul. Optics Communications, 2019, 436, 161-167.	2.1	17
15	Performance Analysis of Carrier-Aggregated Multiantenna 4 × 4 MIMO LTE-A Fronthaul by Spatial Multiplexing on Multicore Fiber. Journal of Lightwave Technology, 2018, 36, 594-600.	4.6	11
16	Supersymmetric Transformations in Optical Fibers. Physical Review Applied, 2018, 9, .	3.8	22
17	Bimodal grating coupler design on SOI technology for mode division multiplexing at 1550 nm. Optics Express, 2018, 26, 19445.	3.4	14
18	Design of asymmetrical directional couplers on ridge and strip SOI technology with high-dimensional variation tolerance. Optics Letters, 2018, 43, 2491.	3.3	4

#	ARTICLE	IF	CITATIONS
19	802.11ac WLAN MIMO radio-over-fiber distributed antenna system for in-building networks based on multicore fiber. Proceedings of SPIE, 2017, , .	0.8	1
20	Bidirectional MIMO and SISO 3GPP LTE-advanced fronthaul architectures based on multicore fiber. , 2017, , .		1
21	Mode Conversion for Mode Division Multiplexing at 850 nm in Standard SMF. IEEE Photonics Technology Letters, 2017, 29, 929-932.	2.5	13
22	Dimensional variation tolerant mode converter/multiplexer fabricated in SOI technology for two-mode transmission at 1550nm. Optics Letters, 2017, 42, 1221.	3.3	14
23	Experimental Demonstration of LTE-A MIMO Radio-over-Multicore Fiber Fronthaul. , 2017, , .		7
24	Birefringence effects in multi-core fiber: coupled local-mode theory. Optics Express, 2016, 24, 21415.	3.4	20
25	Pervasive information gathering and data mining for efficient business administration. Journal of Vacation Marketing, 2016, 22, 295-306.	4.3	4
26	Next-Generation Optical Fronthaul Systems Using Multicore Fiber Media. Journal of Lightwave Technology, 2016, 34, 4819-4827.	4.6	30
27	Mode-Selective Couplers for Two-Mode Transmission at 850 nm in Standard SMF. IEEE Photonics Technology Letters, 2016, 28, 425-428.	2.5	15
28	On the Suitability of Multicore Fiber for LTE-Advanced MIMO Optical Fronthaul Systems. Journal of Lightwave Technology, 2016, 34, 676-682.	4.6	34
29	Multicore optical-wireless extended-range fronthaul by polarization-multiplexing in passive optical networks. , 2015, , .		2
30	Deep optical access on multi-core and multi-mode fiber for integrated wireless applications. Proceedings of SPIE, 2015, , .	0.8	3
31	Experimental evaluation of nonlinear crosstalk in multi-core fiber. Optics Express, 2015, 23, 18712.	3.4	35
32	25-Gb/s OFDM 60-GHz Radio Over Fiber System Based on a Gain Switched Laser. Journal of Lightwave Technology, 2015, 33, 1635-1643.	4.6	30
33	Polarization Division Multiplexing of OFDM Radio-over-Fiber Signals in Passive Optical Networks. Advances in Optical Technologies, 2014, 2014, 1-9.	0.8	27
34	On-the-field performance of quintuple-play long-reach OFDM-based WDM-PON optical access networks. Optics Express, 2014, 22, 6203.	3.4	5
35	LTE-Advanced Carrier Aggregation Supporting Fully Standard 3GPP MIMO by Optical Polarization Multiplexing. , 2014, , .		3
36	Impact and reduction of fibre nonlinearities in a 25 Gb/s OFDM 60 GHz radio over fibre system. , 2014, , .		2

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37	Broadband Impairment Compensation in Hybrid Fiber-Wireless OFDM Long-Reach PONs. Journal of Lightwave Technology, 2014, 32, 1387-1393.	4.6	7
38	Centralized Optical-Frequency-Comb-Based RF Carrier Generator for DWDM Fiber-Wireless Access Systems. Journal of Optical Communications and Networking, 2014, 6, 1.	4.8	18
39	Integrated FTTH and In-Building Fiber-Coax OFDM Field Trial. IEEE Photonics Technology Letters, 2014, 26, 809-812.	2.5	8
40	Radio-Over-Fiber Optical Polarization-Multiplexed Networks for 3GPP Wireless Carrier-Aggregated MIMO Provision. Journal of Lightwave Technology, 2014, 32, 3721-3727.	4.6	28
41	DVB-S2 and DVB-T RF Transmission in 1-mm GI-POF System. IEEE Photonics Technology Letters, 2014, 26, 1665-1668.	2.5	3
42	60 GHz Radio Over Fiber System Based on Gain-Switched Laser. Journal of Lightwave Technology, 2014, 32, 3695-3703.	4.6	28
43	Few-mode optical transmission systems in the visible band. , 2014, , .		1
44	Chromatic Dispersion-Induced Optical Phase Decorrelation in a 60 GHz OFDM-RoF System. IEEE Photonics Technology Letters, 2014, 26, 2016-2019.	2.5	30
45	On the performance of a linearized dual parallel Mach-Zehnder electro-optic modulator. Optics Communications, 2014, 318, 212-215.	2.1	10
46	Low cost 60 GHz radio over fiber system based on gain-switched laser. , 2014, , .		0
47	Wearable Computers and Big Data: Interaction Paradigms for Knowledge Building in Higher Education. , 2014, , 127-137.		10
48	Design of Directly Modulated Long-Reach PONs Reaching 125 km for Provisioning of Hybrid Wired-Wireless Quintuple-Play Service. Journal of Optical Communications and Networking, 2013, 5, 848.	4.8	4
49	Radio-over-fiber quintuple-play service provision for deep fiber-to-the-home passive networks. , 2013, , .		7
50	Feasibility Study and Experimental Verification of Simplified Fiber-Supported 60-GHz Picocell Mobile Backhaul Links. IEEE Photonics Journal, 2013, 5, 7200913-7200913.	2.0	25
51	Fully converged optical, millimetre-wave wireless and cable provision in OFDM-PON FTTH networks. , 2013, , .		3
52	Wired-Wireless Services Provision in FSAN NG-PON2 Compliant Long-Reach PONs: Performance Analysis. , 2013, , .		6
53	DWDM Fiber-Wireless Access System with Centralized Optical Frequency Comb-based RF Carrier Generation. , 2013, , .		3
54	In-home networks integrating high-capacity DMT data and DVB-T over large-core GI-POF. Optics Express, 2012, 20, 29769.	3.4	5

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55	VCSEL-based, CWDM - PON systems using reflective technology for bi-directional multi-play service provision. Optics Express, 2012, 20, 16726.	3.4	3
56	Transmission of OFDM wired-wireless quintuple-play services along WDM LR-PONs using centralized broadband impairment compensation. Optics Express, 2012, 20, 13748.	3.4	18
57	Fiber Wireless Transmission of 8.3-Gb/s/ch QPSK-OFDM Signals in 75-110-GHz Band. IEEE Photonics Technology Letters, 2012, 24, 383-385.	2.5	41
58	Combined single-mode/multimode fiber link supporting simplified in-building 60-GHz gigabit wireless access. Optical Fiber Technology, 2012, 18, 226-229.	2.7	8
59	42.13 GBIT/S 16QAM-OFDM PHOTONICS-WIRELESS TRANSMISSION IN 75-110 GHz BAND. Progress in Electromagnetics Research, 2012, 126, 449-461.	4.4	16
60	Multistandard Wireless Transmission Over SSMF and Large-Core POF for Access and In-Home Networks. IEEE Photonics Technology Letters, 2012, 24, 736-738.	2.5	13
61	Cost and energy efficient multi-standard OFDM integrated optical access and in-building network architecture. , 2012, , .		1
62	38.2-Gb/s Optical-Wireless Transmission in 75-110 GHz Based on Electrical OFDM with Optical Comb Expansion. , 2012, , .		9
63	Transmission Impairment Compensation Using Broadband Channel Sounding in Multi-Format OFDM-based Long-Reach PONs. , 2012, , .		10
64	Wired-Wireless OFDM Signals Coexistence in LR-PONs Using Two Centralized Compensation Stages. , 2012, , .		1
65	First Demonstration of Cooler-less, Bi-Directional, Format- Agnostic, Wireless and Gigabit Ethernet Network Provision using Off-The-Shelf VCSELs. , 2012, , .		0
66	Reconfigurable Multiwavelength Source Based on Electrooptic Phase Modulation of a Pulsed Laser. IEEE Photonics Technology Letters, 2011, 23, 1175-1177.	2.5	6
67	Experimental Analysis of 60-GHz VCSEL and ECL Photonic Generation and Transmission of Impulse-Radio Ultra-Wideband Signals. IEEE Photonics Technology Letters, 2011, 23, 1055-1057.	2.5	8
68	Dual Photonic Generation Ultrawideband Impulse Radio by Frequency Shifting in Remote-Connectivity Fiber. Journal of Lightwave Technology, 2011, 29, 3645-3653.	4.6	7
69	480Mbit/s UWB bi-directional radio over fiber CWDM PON using ultra-low cost and power VCSELs. Optics Express, 2011, 19, B197.	3.4	2
70	Dual-drive LiNbO <sub>3</sub> interferometric Mach-Zehnder architecture with extended linear regime for high peak-to-average OFDM-based communication systems. Optics Express, 2011, 19, B452.	3.4	12
71	Optimization of high-definition video coding and hybrid fiber-wireless transmission in the 60 GHz band. Optics Express, 2011, 19, B895.	3.4	6
72	Spectral self-imaging effect by time-domain multilevel phase modulation of a periodic pulse train. Optics Letters, 2011, 36, 858.	3.3	38

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73	Linear Regime Extension Technique in Parallel LiNbO <sub>3</sub> Interferometric Architectures for UWB Applications. , 2011, , .		0
74	Performance of a 60-GHz DCM-OFDM and BPSK-Impulse Ultra-Wideband System with Radio-Over-Fiber and Wireless Transmission Employing a Directly-Modulated VCSEL. IEEE Journal on Selected Areas in Communications, 2011, 29, 1295-1303.	14.0	20
75	Performance Comparison of OFDM-UWB Radio Signals Distribution in Long-Reach PONs Using Mach-Zehnder and Linearized Modulators. IEEE Journal on Selected Areas in Communications, 2011, 29, 1311-1320.	14.0	13
76	Novel Photonic Analog-to-Digital Converter Architecture for Precise Localization of Ultra-Wide Band Radio Transmitters. IEEE Journal on Selected Areas in Communications, 2011, 29, 1321-1327.	14.0	10
77	Optimization of high-definition video coding and hybrid fiber-wireless transmission in the 60 GHz band. , 2011, , .		1
78	Complete Mitigation of Brillouin Scattering Effects in Reflective Passive Optical Networks using Triple-Format OFDM Radio Signals. , 2011, , .		4
79	“Real World” FTTH Optical-to-Radio Interface Performance for Bi-directional Multi-Format OFDM Wireless Signal Transmission. , 2011, , .		7
80	Specialty Fiber Evaluation for In-building Distribution of Multiple-Format OFDM Radio Signals. , 2011, , .		0
81	SMF/MMF Based In-building Gigabit Wireless Access Systems Using Simplified 60-GHz Transceivers. , 2011, , .		2
82	Full Standard Triple-Play Bi-Directional and Full-Duplex CWDM Transmission in Passive Optical Networks. , 2011, , .		8
83	Ultra-Low Cost and Power VCSEL-Based 480Mbit/s UWB Radio over a Bi-Directional CWDM PON. , 2011, , .		0
84	60-GHz Ultra-Wideband Radio-Over-Fiber System Using a Novel Photonic Monocycle Generation. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 1609-1620.	4.6	17
85	Optical technologies for Multi-Gbit/s ultra-wideband radio: From the access to the pico-cell. , 2010, , .		0
86	Experimental performance comparison of 60 GHz DCM OFDM and impulse BPSK ultra-wideband with combined optical fibre and wireless transmission. , 2010, , .		5
87	A CD and OSNR-insensitive DGD monitoring technique for high-speed data using a low-speed detector. , 2010, , .		1
88	Localization and Fingerprint of Radio Signals Employing a Multichannel Photonic Analog-to-Digital Converter. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 3304-3311.	4.6	2
89	Localisation of ultra-wide band radio signals by time-multiplexed photonic analog-to-digital processing. , 2010, , .		0
90	Effect of multi-channel MB-OFDM UWB radio-over-fiber transmission using polarization multiplexed distribution in FTTH networks. , 2010, , .		1

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91	Optical Generation with FTTH Transmission of 60 GHz Impulse-Radio Ultra-Wideband Signals. , 2010, , .		2
92	UWB radio-over-fiber and photonic sensing for cognitive optical access networks. , 2009, , .		1
93	Accurate knowledge evaluation by deep datamining in Telecommunication Engineering studies. , 2009, , .		0
94	Experimental Comparison of Transmission Performance of Multichannel OFDM-UWB Signals on FTTH Networks. Journal of Lightwave Technology, 2009, 27, 1408-1414.	4.6	2
95	Joint Distribution of Polarization-Multiplexed UWB and WiMAX Radio in PON. Journal of Lightwave Technology, 2009, 27, 1912-1919.	4.6	16
96	Combined Analysis of OFDM-UWB Transmission in Hybrid Wireless-Optical Access Networks. IEEE Photonics Technology Letters, 2009, 21, 1378-1380.	2.5	6
97	Cognitive radio by photonic analog-to-digital conversion sensing. , 2009, , .		3
98	Ultra-wideband radio-over-fibre in transparent optical networks. , 2009, , .		0
99	Performance evaluation of OFDM and impulse-radio ultra-wideband over fiber distribution for in-building networks. , 2009, , .		4
100	UMTS radio-over-fiber pico-cell interconnection employing low-cost VCSELs and multi-mode fibre. , 2009, , .		0
101	60 GHz UWB-over-fiber system for in-flight communications. , 2009, , .		4
102	UMTS radio-over-fiber pico-cell interconnection employing uncooled DFB lasers for multi-mode fibre modulation bandwidth enhancement. , 2009, , .		1
103	Transmission of 1.2 Gbit/s Polarization-Multiplexed UWB Signals in PON with 0.76 Bit/s/Hz Spectral Efficiency. , 2009, , .		2
104	Integrated performance analysis of UWB wireless optical transmission in FTTH networks. , 2008, , .		1
105	Performance comparison of radio-over-fibre UWB distribution in SSMF and MMF optical media. , 2008, , .		6
106	Impact of pilot tone-assisted equalization in Wimedia-defined OFDM-UWB signals transmission in FTTH networks. , 2008, , .		0
107	Photonic generation and frequency up-conversion of impulse-radio UWB signals. , 2008, , .		9
108	Wimedia-Defined, Ultra-Wideband Radio Transmission over Optical Fibre. , 2008, , .		7

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109	Bi-directional, 480Mbps, ultra-wideband, radio-over-fibre transmission using a 1310/1564nm reflective electro-absorption transducer and commercially-available components. , 2008, , .		4
110	Long-term and Short-term Spectral Stability Characterization of Supercontinuum Laser Sources. , 2006, , .		0
111	Linear crosstalk spectral analysis in DWDM networks by a real-time optical Fourier transformer. , 2005, , .		0
112	High-spectral efficiency orthogonal wavelength division modulation technique for DWDM networks. , 2005, , .		0
113	High-throughput screening of surface-enhanced fluorescence on industrial standard digital recording media. , 2004, , .		17
114	Photonic-crystal 180° power splitter based on coupled-cavity waveguides. Applied Physics Letters, 2003, 83, 3033-3035.	3.3	19
115	Optical header processing in high-speed optical networks. , 2003, 5247, 142.		1
116	Technologies for optical networking in Nx160-Gbit/s DWDM networks. , 2003, , .		0
117	Application of Radio-Over-Fiber in WiMAX: Results and Prospects. , 0, , 385-400.		0
118	Radio-over-Fibre Techniques and Performance. , 0, , .		6
119	Data Mining in Higher Education. , 0, , .		11
120	Radio-over-Fibre Networks for 4G. Advances in Wireless Technologies and Telecommunication Book Series, 0, , 268-291.	0.4	0