

# Roberto Llorente SÃ¡ez

## List of Publications by Year in descending order

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120  
papers

1,002  
citations

430874

18  
h-index

580821

25  
g-index

120  
all docs

120  
docs citations

120  
times ranked

827  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fiber Wireless Transmission of 8.3-Gb/s/ch QPSK-OFDM Signals in 75-Å“110-GHz Band. IEEE Photonics Technology Letters, 2012, 24, 383-385.	2.5	41
2	Spectral self-imaging effect by time-domain multilevel phase modulation of a periodic pulse train. Optics Letters, 2011, 36, 858.	3.3	38
3	Experimental evaluation of nonlinear crosstalk in multi-core fiber. Optics Express, 2015, 23, 18712.	3.4	35
4	On the Suitability of Multicore Fiber for LTE-Å“Advanced MIMO Optical Fronthaul Systems. Journal of Lightwave Technology, 2016, 34, 676-682.	4.6	34
5	Chromatic Dispersion-Induced Optical Phase Decorrelation in a 60 GHz OFDM-RoF System. IEEE Photonics Technology Letters, 2014, 26, 2016-2019.	2.5	30
6	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
7	Next-Generation Optical Fronthaul Systems Using Multicore Fiber Media. Journal of Lightwave Technology, 2016, 34, 4819-4827.	4.6	30
8	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
9	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
10	60 GHz Radio Over Fiber System Based on Gain-Switched Laser. Journal of Lightwave Technology, 2014, 32, 3695-3703.	4.6	28
11	Polarization Division Multiplexing of OFDM Radio-over-Fiber Signals in Passive Optical Networks. Advances in Optical Technologies, 2014, 2014, 1-9.	0.8	27
12	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
13	Supersymmetric Transformations in Optical Fibers. Physical Review Applied, 2018, 9, .	3.8	22
14	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
15	Birefringence effects in multi-core fiber: coupled local-mode theory. Optics Express, 2016, 24, 21415.	3.4	20
16	Photonic-crystal 180-Å“ power splitter based on coupled-cavity waveguides. Applied Physics Letters, 2003, 83, 3033-3035.	3.3	19
17	Supersymmetry in the time domain and its applications in optics. Nature Communications, 2020, 11, 813.	12.8	19
18	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

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19	Centralized Optical-Frequency-Comb-Based RF Carrier Generator for DWDM Fiber-Wireless Access Systems. <i>Journal of Optical Communications and Networking</i> , 2014, 6, 1.	4.8	18
20	High-throughput screening of surface-enhanced fluorescence on industrial standard digital recording media. , 2004, , .		17
21	60-GHz Ultra-Wideband Radio-Over-Fiber System Using a Novel Photonic Monocycle Generation. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2010, 58, 1609-1620.	4.6	17
22	Performance analysis of multiple radio-access provision in a multicore-fibre optical fronthaul. <i>Optics Communications</i> , 2019, 436, 161-167.	2.1	17
23	Joint Distribution of Polarization-Multiplexed UWB and WiMAX Radio in PON. <i>Journal of Lightwave Technology</i> , 2009, 27, 1912-1919.	4.6	16
24	42.13 GBIT/S 16QAM-OFDM PHOTONICS-WIRELESS TRANSMISSION IN 75-110 GHz BAND. <i>Progress in Electromagnetics Research</i> , 2012, 126, 449-461.	4.4	16
25	Mode-Selective Couplers for Two-Mode Transmission at 850 nm in Standard SMF. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 425-428.	2.5	15
26	Dimensional variation tolerant mode converter/multiplexer fabricated in SOI technology for two-mode transmission at 1550 nm. <i>Optics Letters</i> , 2017, 42, 1221.	3.3	14
27	Bimodal grating coupler design on SOI technology for mode division multiplexing at 1550 nm. <i>Optics Express</i> , 2018, 26, 19445.	3.4	14
28	Multi-Beamforming Provided by Dual-Wavelength True Time Delay PIC and Multicore Fiber. <i>Journal of Lightwave Technology</i> , 2020, 38, 5311-5317.	4.6	14
29	Performance Comparison of OFDM-UWB Radio Signals Distribution in Long-Reach PONs Using Mach-Zehnder and Linearized Modulators. <i>IEEE Journal on Selected Areas in Communications</i> , 2011, 29, 1311-1320.	14.0	13
30	Multistandard Wireless Transmission Over SSMF and Large-Core POF for Access and In-Home Networks. <i>IEEE Photonics Technology Letters</i> , 2012, 24, 736-738.	2.5	13
31	Mode Conversion for Mode Division Multiplexing at 850 nm in Standard SMF. <i>IEEE Photonics Technology Letters</i> , 2017, 29, 929-932.	2.5	13
32	Dual-drive LiNbO <sub>3</sub> interferometric Mach-Zehnder architecture with extended linear regime for high peak-to-average OFDM-based communication systems. <i>Optics Express</i> , 2011, 19, B452.	3.4	12
33	Data Mining in Higher Education. , 0, , .		11
34	Performance Analysis of Carrier-Aggregated Multiantenna 4 × 4 MIMO LTE-A Fronthaul by Spatial Multiplexing on Multicore Fiber. <i>Journal of Lightwave Technology</i> , 2018, 36, 594-600.	4.6	11
35	Novel Photonic Analog-to-Digital Converter Architecture for Precise Localization of Ultra-Wide Band Radio Transmitters. <i>IEEE Journal on Selected Areas in Communications</i> , 2011, 29, 1321-1327.	14.0	10
36	On the performance of a linearized dual parallel Mach-Zehnder electro-optic modulator. <i>Optics Communications</i> , 2014, 318, 212-215.	2.1	10

#	ARTICLE	IF	CITATIONS
37	Wearable Computers and Big Data: Interaction Paradigms for Knowledge Building in Higher Education. , 2014, , 127-137.		10
38	Transmission Impairment Compensation Using Broadband Channel Sounding in Multi-Format OFDM-based Long-Reach PONs. , 2012, , .		10
39	Photonic generation and frequency up-conversion of impulse-radio UWB signals. , 2008, , .		9
40	38.2-Gb/s Optical-Wireless Transmission in 75-110 GHz Based on Electrical OFDM with Optical Comb Expansion. , 2012, , .		9
41	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
42	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
43	Integrated FTTH and In-Building Fiber-Coax OFDM Field Trial. IEEE Photonics Technology Letters, 2014, 26, 809-812.	2.5	8
44	Full Standard Triple-Play Bi-Directional and Full-Duplex CWDM Transmission in Passive Optical Networks. , 2011, , .		8
45	Wimedia-Defined, Ultra-Wideband Radio Transmission over Optical Fibre. , 2008, , .		7
46	Dual Photonic Generation Ultrawideband Impulse Radio by Frequency Shifting in Remote-Connectivity Fiber. Journal of Lightwave Technology, 2011, 29, 3645-3653.	4.6	7
47	Radio-over-fiber quintuple-play service provision for deep fiber-to-the-home passive networks. , 2013, , .		7
48	Broadband Impairment Compensation in Hybrid Fiber-Wireless OFDM Long-Reach PONs. Journal of Lightwave Technology, 2014, 32, 1387-1393.	4.6	7
49	â€œReal Worldâ€•FTTH Optical-to-Radio Interface Performance for Bi-directional Multi-Format OFDM Wireless Signal Transmission. , 2011, , .		7
50	Experimental Demonstration of LTE-A MÃ—4Ã—4 MIMO Radio-over-Multicore Fiber Fronthaul. , 2017, , .		7
51	Performance comparison of radio-over-fibre UWB distribution in SSMF and MMF optical media. , 2008, , .		6
52	Combined Analysis of OFDM-UWB Transmission in Hybrid Wireless-Optical Access Networks. IEEE Photonics Technology Letters, 2009, 21, 1378-1380.	2.5	6
53	Radio-over-Fibre Techniques and Performance. , 0, , .		6
54	Reconfigurable Multiwavelength Source Based on Electrooptic Phase Modulation of a Pulsed Laser. IEEE Photonics Technology Letters, 2011, 23, 1175-1177.	2.5	6

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55	Optimization of high-definition video coding and hybrid fiber-wireless transmission in the 60 GHz band. Optics Express, 2011, 19, B895.	3.4	6
56	Wired-Wireless Services Provision in FSAN NG-PON2 Compliant Long-Reach PONs: Performance Analysis. , 2013, , .		6
57	Experimental performance comparison of 60 GHz DCM OFDM and impulse BPSK ultra-wideband with combined optical fibre and wireless transmission. , 2010, , .		5
58	In-home networks integrating high-capacity DMT data and DVB-T over large-core GI-POF. Optics Express, 2012, 20, 29769.	3.4	5
59	On-the-field performance of quintuple-play long-reach OFDM-based WDM-PON optical access networks. Optics Express, 2014, 22, 6203.	3.4	5
60	Multi-core Fiber Technology supporting MIMO and Photonic Beamforming in 5G Multi-Antenna Systems : (Invited paper). , 2019, , .		5
61	Photonic Frequency Conversion of OFDM Microwave Signals in a Wavelength- $\epsilon$ Scale Optomechanical Cavity. Laser and Photonics Reviews, 2021, 15, 2100175.	8.7	5
62	Bi-directional, 480Mbps, ultra-wideband, radio-over-fibre transmission using a 1310/1564nm reflective electro-absorption transducer and commercially-available components. , 2008, , .		4
63	Performance evaluation of OFDM and impulse-radio ultra-wideband over fiber distribution for in-building networks. , 2009, , .		4
64	60 GHz UWB-over-fiber system for in-flight communications. , 2009, , .		4
65	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
66	Pervasive information gathering and data mining for efficient business administration. Journal of Vacation Marketing, 2016, 22, 295-306.	4.3	4
67	Design of asymmetrical directional couplers on ridge and strip SOI technology with high-dimensional variation tolerance. Optics Letters, 2018, 43, 2491.	3.3	4
68	Complete Mitigation of Brillouin Scattering Effects in Reflective Passive Optical Networks using Triple-Format OFDM Radio Signals. , 2011, , .		4
69	Cognitive radio by photonic analog-to-digital conversion sensing. , 2009, , .		3
70	VCSEL-based, CWDM - PON systems using reflective technology for bi-directional multi-play service provision. Optics Express, 2012, 20, 16726.	3.4	3
71	Fully converged optical, millimetre-wave wireless and cable provision in OFDM-PON FTTH networks. , 2013, , .		3
72	LTE-Advanced Carrier Aggregation Supporting Fully Standard 3GPP MIMO by Optical Polarization Multiplexing. , 2014, , .		3

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73	DVB-S2 and DVB-T RF Transmission in 1-mm GI-POF System. IEEE Photonics Technology Letters, 2014, 26, 1665-1668.	2.5	3
74	Deep optical access on multi-core and multi-mode fiber for integrated wireless applications. Proceedings of SPIE, 2015, , .	0.8	3
75	DWDM Fiber-Wireless Access System with Centralized Optical Frequency Comb-based RF Carrier Generation. , 2013, , .		3
76	Experimental Comparison of Transmission Performance of Multichannel OFDM-UWB Signals on FTTH Networks. Journal of Lightwave Technology, 2009, 27, 1408-1414.	4.6	2
77	Transmission of 1.2 Gbit/s Polarization-Multiplexed UWB Signals in PON with 0.76 Bit/s/Hz Spectral Efficiency. , 2009, , .		2
78	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
79	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
80	Impact and reduction of fibre nonlinearities in a 25 Gb/s OFDM 60 GHz radio over fibre system. , 2014, , .		2
81	Multicore optical-wireless extended-range fronthaul by polarization-multiplexing in passive optical networks. , 2015, , .		2
82	Integrated Wireless-Optical Backhaul and Fronthaul Provision Through Multicore Fiber. IEEE Access, 2020, 8, 146915-146922.	4.2	2
83	Remote Photonic THz Generation Using an Optical Frequency Comb and Multicore Fiber. Journal of Lightwave Technology, 2021, 39, 7621-7627.	4.6	2
84	Optical Generation with FTTH Transmission of 60 GHz Impulse-Radio Ultra-Wideband Signals. , 2010, , .		2
85	SMF/MMF Based In-building Gigabit Wireless Access Systems Using Simplified 60-GHz Transceivers. , 2011, , .		2
86	Optical header processing in high-speed optical networks. , 2003, 5247, 142.		1
87	Integrated performance analysis of UWB wireless optical transmission in FTTH networks. , 2008, , .		1
88	UWB radio-over-fiber and photonic sensing for cognitive optical access networks. , 2009, , .		1
89	UMTS radio-over-fiber pico-cell interconnection employing uncooled DFB lasers for multi-mode fibre modulation bandwidth enhancement. , 2009, , .		1
90	A CD and OSNR-insensitive DGD monitoring technique for high-speed data using a low-speed detector. , 2010, , .		1

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91	Cost and energy efficient multi-standard OFDM integrated optical access and in-building network architecture. , 2012, , .		1
92	Few-mode optical transmission systems in the visible band. , 2014, , .		1
93	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
94	Bidirectional MIMO and SISO 3GPP LTE-advanced fronthaul architectures based on multicore fiber. , 2017, , .		1
95	Optimization of high-definition video coding and hybrid fiber-wireless transmission in the 60 GHz band. , 2011, , .		1
96	Compact K-band Photonic Beamsteerer Assisted with Weakly-Coupled Multi-Core Fiber. , 2021, , .		1
97	Effect of multi-channel MB-OFDM UWB radio-over-fiber transmission using polarization multiplexed distribution in FTTH networks. , 2010, , .		1
98	Wired-Wireless OFDM Signals Coexistence in LR-PONs Using Two Centralized Compensation Stages. , 2012, , .		1
99	Dual-Wavelength Integrated K-band Multi-Beamformer operating over 1-km 7-core Multicore Fiber. , 2020, , .		1
100	Dual-wavelength photonic beamformer for OFDM and single-carrier broadband wireless operating over 1-km 7-core fiber fronthaul. , 2020, , .		1
101	Optical combs and multicore fiber as technology enablers for next-generation datacenter infrastructure. , 2022, , .		1
102	Technologies for optical networking in Nx160-Gbit/s DWDM networks. , 2003, , .		0
103	Linear crosstalk spectral analysis in DWDM networks by a real-time optical Fourier transformer. , 2005, , .		0
104	High-spectral efficiency orthogonal wavelength division modulation technique for DWDM networks. , 2005, , .		0
105	Long-term and Short-term Spectral Stability Characterization of Supercontinuum Laser Sources. , 2006, , .		0
106	Impact of pilot tone-assisted equalization in Wimedia-defined OFDM-UWB signals transmission in FTTH networks. , 2008, , .		0
107	Accurate knowledge evaluation by deep datamining in Telecommunication Engineering studies. , 2009, , .		0
108	Ultra-wideband radio-over-fibre in transparent optical networks. , 2009, , .		0

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109	UMTS radio-over-fiber pico-cell interconnection employing low-cost VCSELs and multi-mode fibre. , 2009, , .		0
110	Application of Radio-Over-Fiber in WiMAX: Results and Prospects. , 0, , 385-400.		0
111	Optical technologies for Multi-Gbit/s ultra-wideband radio: From the access to the pico-cell. , 2010, , .		0
112	Localisation of ultra-wide band radio signals by time-multiplexed photonic analog-to-digital processing. , 2010, , .		0
113	Linear Regime Extension Technique in Parallel LiNbO <sub>3</sub> Interferometric Architectures for UWB Applications. , 2011, , .		0
114	Low cost 60 GHz radio over fiber system based on gain-switched laser. , 2014, , .		0
115	Generalized Method to Describe the Propagation of Pulses in Classical and Specialty Optical Fibers. IEEE Photonics Journal, 2019, 11, 1-12.	2.0	0
116	Specialty Fiber Evaluation for In-building Distribution of Multiple-Format OFDM Radio Signals. , 2011, , .		0
117	Ultra-Low Cost and Power VCSEL-Based 480Mbit/s UWB Radio over a Bi-Directional CWDM PON. , 2011, , .		0
118	First Demonstration of Cooler-less, Bi-Directional, Format- Agnostic, Wireless and Gigabit Ethernet Network Provision using Off-The-Shelf VCSELs. , 2012, , .		0
119	Radio-over-Fibre Networks for 4G. Advances in Wireless Technologies and Telecommunication Book Series, 0, , 268-291.	0.4	0
120	IMPACT OF COVID-19 LOCKDOWN IN TELECOMMUNICATIONS ENGINEERING COMPETENCY-BASED ALUMNI RANKING. , 2020, , .		0