

# Colm Browning

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

67

papers

520

citations

13

h-index

19

g-index

80

ext. papers

690

ext. citations

2.9

avg, IF

3.86

L-index

#	Paper	IF	Citations
67	Intra-Data Centre Flexible PAM Transmission System Using an Integrated InP-Si <sub>3</sub> N <sub>4</sub> Dual Laser Module. <i>IEEE Photonics Journal</i> , <b>2022</b> , 14, 1-6	1.8	
66	Single-Lane 54-Gbit/s PAM-4/8 Signal Transmissions Using 10G-Class Directly Modulated Lasers Enabled by Low-Complexity Nonlinear Digital Equalization. <i>IEEE Photonics Journal</i> , <b>2022</b> , 1-1	1.8	1
65	Injection Locking Properties of an InP-Si <sub>3</sub> N <sub>4</sub> Dual Laser Source for Mm-wave Communications. <i>Journal of Lightwave Technology</i> , <b>2022</b> , 1-1	4	0
64	Wavelength & mm-wave flexible converged optical fronthaul with a low noise Si-based integrated dual laser source. <i>Journal of Lightwave Technology</i> , <b>2022</b> , 1-1	4	
63	High-speed PAM-4 Signal Transmissions with Directly Modulated Lasers for the Next-Generation Passive Optical Networks <b>2021</b> ,		1
62	54-Gbit/s PAM-8 Transmission in Next-Generation Passive Optical Networks using Directly Modulated Lasers with Machine Learning Techniques <b>2021</b> ,		1
61	Flexible Converged Photonic and Radio Systems: A Pathway toward Next Generation Wireless Connectivity <b>2021</b> ,		1
60	Flexible Optical and Millimeter-Wave Analog-RoF Transmission with a Silicon-based Integrated Dual Laser Module <b>2021</b> ,		2
59	. <i>IEEE Access</i> , <b>2021</b> , 1-1	3.5	
58	28 GBd PAM-8 transmission over a 100 nm range using an InP-SiN based integrated dual tunable laser module. <i>Optics Express</i> , <b>2021</b> , 29, 16563-16571	3.3	4
57	. <i>Journal of Lightwave Technology</i> , <b>2021</b> , 39, 465-474	4	15
56	Active Demultiplexer-enabled Directly Modulated DMT Transmission Using Optical Frequency Combs for Data Center Interconnects. <i>Journal of Lightwave Technology</i> , <b>2021</b> , 39, 5468-5473	4	0
55	Flexible V-band mmWave Analog-RoF Transmission of 5G and WiGig signals using an InP-SiN Integrated Laser Module <b>2021</b> ,		1
54	Mode Locked Laser Phase Noise Reduction Under Optical Feedback for Coherent DWDM Communication. <i>Journal of Lightwave Technology</i> , <b>2020</b> , 38, 5708-5715	4	8
53	A Silicon Photonic Switching Platform for Flexible Converged Centralized-Radio Access Networking. <i>Journal of Lightwave Technology</i> , <b>2020</b> , 38, 5386-5392	4	12
52	Quantum Dash Passively Mode Locked Laser for Optical Heterodyne Millimeter-Wave Analog Radio-over-Fiber Fronthaul Systems <b>2020</b> ,		7
51	CO-OFDM for bandwidth-reconfigurable optical interconnects using gain-switched comb. <i>OSA Continuum</i> , <b>2020</b> , 3, 2925	1.4	4

50	56 Gb/s/Over 1.3 THz frequency range and 400G DWDM PAM-4 transmission with a single quantum dash mode-locked laser source. <i>Optics Express</i> , <b>2020</b> , 28, 22443-22449	3.3	2
49	Active demultiplexer enabled mmW ARoF transmission of directly modulated 64-QAM UF-OFDM signals. <i>Optics Letters</i> , <b>2020</b> , 45, 5246-5249	3	4
48	Compensation of fiber dispersion induced-power fading in reconfigurable millimeter-wave optical networks. <i>Optics Communications</i> , <b>2020</b> , 476, 126308	2	2
47	Analysis of Phase Noise in a Hybrid Photonic/Millimetre-Wave System for Single and Multi-Carrier Radio Applications. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 5800	2.6	3
46	Phase Modulated Radio-Over-Fiber for Efficient 5G Fronthaul Uplink. <i>Journal of Lightwave Technology</i> , <b>2019</b> , 37, 5821-5832	4	1
45	. <i>Journal of Lightwave Technology</i> , <b>2019</b> , 37, 3875-3881	4	14
44	Chirp Compensation of Directly Modulated 3s-DBR Laser for WDM-RoF-Based Mobile Fronthaul. <i>IEEE Photonics Technology Letters</i> , <b>2019</b> , 31, 1171-1174	2.2	1
43	Power efficient optical frequency comb generation using laser gain switching and dual-drive Mach-Zehnder modulator. <i>Optics Express</i> , <b>2019</b> , 27, 24135-24146	3.3	9
42	Optical Heterodyne Millimeter-Wave Analog Radio-over-Fiber with Photonic Integrated Tunable Lasers <b>2019</b> ,		5
41	Wired and Wireless Convergence in Future Optical Access Networks [Invited] <b>2019</b> ,		2
40	OFDM Baud Rate Limitations in an Optical Heterodyne Analog Fronthaul Link using Unlocked Fibre Lasers <b>2019</b> ,		7
39	Performance Analysis of Analog IF Over Fiber Fronthaul Link With 4G and 5G Coexistence. <i>Journal of Optical Communications and Networking</i> , <b>2018</b> , 10, 174	4.1	27
38	Tapless and topology agnostic calibration solution for silicon photonic switches. <i>Optics Express</i> , <b>2018</b> , 26, 32662-32674	3.3	8
37	Narrow linewidth hybrid InP-TriPleX photonic integrated tunable laser based on silicon nitride micro-ring resonators <b>2018</b> ,		5
36	256/64-QAM Multicarrier Analog Radio-over-Fiber Modulation using a Linear Differential Drive Silicon Mach-Zehnder Modulator <b>2018</b> ,		3
35	Corrections to [Characterization of Hybrid InP-TriPleX Photonic Integrated Tunable Lasers Based on Silicon Nitride (Si3N4/SiO2) Microring Resonators for Optical Coherent System] <i>IEEE Photonics Journal</i> , <b>2018</b> , 10, 1-1	1.8	3
34	Gain-Switched Optical Frequency Combs for Future Mobile Radio-Over-Fiber Millimeter-Wave Systems. <i>Journal of Lightwave Technology</i> , <b>2018</b> , 36, 4602-4610	4	42
33	. <i>IEEE Photonics Journal</i> , <b>2018</b> , 10, 1-8	1.8	13

32	Software-Defined Silicon-Photonics-Based Metro Node for Spatial and Wavelength Superchannel Switching. <i>Journal of Optical Communications and Networking</i> , <b>2017</b> , 9, 342	4.1	3
31	Converged wired and wireless services in next generation optical access networks <b>2017</b> ,		4
30	60 GHz 5G Radio-Over-Fiber Using UF-OFDM With Optical Heterodyning. <i>IEEE Photonics Technology Letters</i> , <b>2017</b> , 29, 2059-2062	2.2	19
29	5G wireless and wired convergence in a passive optical network using UF-OFDM and GFDM <b>2017</b> ,		17
28	28 GHz 5G radio over fibre using UF-OFDM with optical heterodyning <b>2017</b> ,		5
27	Automated Thermal Stabilization of Cascaded Silicon Photonic Ring Resonators for Reconfigurable WDM Applications <b>2017</b> ,		5
26	Comparison of OFDMA and GFDMA for Next-Generation PONs. <i>Journal of Optical Communications and Networking</i> , <b>2017</b> , 9, 1064	4.1	4
25	Performance analysis of optical front-hauling for 5G Waveforms <b>2017</b> ,		3
24	Software-defined control-plane for wavelength selective unicast and multicast of optical data in a silicon photonic platform. <i>Optics Express</i> , <b>2017</b> , 25, 232-242	3.3	21
23	Investigation of the Performance of GFDMA and OFDMA for Spectrally Efficient Broadband PONs <b>2017</b> ,		2
22	Optical Circuit Switching/Multicasting of Burst Mode PAM-4 using a Programmable Silicon Photonic Chip <b>2017</b> ,		1
21	In-band insertion of RoF LTE Services in OOK based PONs using line coding techniques. <i>Optics Communications</i> , <b>2015</b> , 356, 488-494	2	1
20	Excursion-Free Dynamic Wavelength Switching in Amplified Optical Networks. <i>Journal of Optical Communications and Networking</i> , <b>2015</b> , 7, 898	4.1	13
19	25-Gb/s OFDM 60-GHz Radio Over Fiber System Based on a Gain Switched Laser. <i>Journal of Lightwave Technology</i> , <b>2015</b> , 33, 1635-1643	4	22
18	Investigation of the effects of laser non-linearity and RIN in direct modulation hybrid wired/wireless PON systems employing an integrated two section laser. <i>Optics Communications</i> , <b>2015</b> , 338, 496-504	2	1
17	Single-section quantum well mode-locked laser for 400 Gb/s SSB-OFDM transmission. <i>Optics Express</i> , <b>2015</b> , 23, 26442-9	3.3	22
16	Programmable Wavelength Locking and Routing in a Silicon-Photonic Interconnection Network Implementation <b>2015</b> ,		7
15	Quantum Dash Passively Mode-Locked Lasers for Tbit/s Data Interconnects <b>2015</b> ,		3

14	FBMC for directly modulated passive optical networks (PON) <b>2015</b> ,		1
13	Quantum Dash Mode-Locked Lasers for Data Centre Applications. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2015</b> , 21, 53-60	3.8	46
12	Reconfigurable WDM-OFDM-PON employing wavelength selective switching with SSB and direct detection optical OFDM. <i>Optics Communications</i> , <b>2015</b> , 334, 314-318	2	2
11	Chromatic Dispersion-Induced Optical Phase Decorrelation in a 60 GHz OFDM-RoF System. <i>IEEE Photonics Technology Letters</i> , <b>2014</b> , 26, 2016-2019	2.2	22
10	Reduced OSNR Penalty for Frequency Drift Tolerant Coherent Packet Switched Systems Using Doubly Differential Decoding <b>2014</b> ,		4
9	WDM-OFDM-PON Based on Compatible SSB Technique Using a Mode Locked Comb Source. <i>IEEE Photonics Technology Letters</i> , <b>2013</b> , 25, 2058-2061	2.2	20
8	Hybrid wired/wireless OFDM-PON with direct modulation of integrated lasers employing optical injection <b>2013</b> ,		3
7	Optical Burst-Switched SSB-OFDM Using a Fast Switching SG-DBR Laser. <i>Journal of Optical Communications and Networking</i> , <b>2013</b> , 5, 994	4.1	10
6	Performance enhancement of 10 Gb/s direct modulation optical OFDM by external optical injection. <i>Optics Communications</i> , <b>2012</b> , 285, 136-139	2	
5	Increased Bit Rate Direct Modulation AMO-OFDM Transmission by Optical Injection Using Monolithically Integrated Lasers. <i>IEEE Photonics Technology Letters</i> , <b>2012</b> , 24, 879-881	2.2	4
4	Integrated Two-Section Discrete Mode Laser. <i>IEEE Photonics Journal</i> , <b>2012</b> , 4, 2085-2094	1.8	20
3	Direct modulation of a tuneable slotted Fabry-Pérot laser with adaptive modulation OFDM. <i>Optics Express</i> , <b>2012</b> , 20, B399-404	3.3	2
2	Performance improvement of 10 Gb/s direct modulation OFDM by optical injection using monolithically integrated Discrete Mode lasers. <i>Optics Express</i> , <b>2011</b> , 19, B289-94	3.3	12
1	Dynamic Linewidth Measurement Method via an Optical Quadrature Front End. <i>IEEE Photonics Technology Letters</i> , <b>2011</b> , 23, 1591-1593	2.2	10