Alan E Willner

List of Publications by Citations

174 papers	10,041 citations	40 h-index	98 g-index
203 ext. papers	13,070 ext. citations	5.1 avg, IF	5.94 L-index

#	Paper	IF	Citations
174	Terabit free-space data transmission employing orbital angular momentum multiplexing. *Nature Photonics*, **2012**, 6, 488-496	33.9	2390
173	Terabit-scale orbital angular momentum mode division multiplexing in fibers. *Science*, **2013**, 340, 1545-8	33.3	1601
172	High-capacity millimetre-wave communications with orbital angular momentum multiplexing. *Nature Communications*, **2014**, 5, 4876	17.4	623
171	Roadmap on structured light. *Journal of Optics (United Kingdom)*, **2017**, 19, 013001	1.7	518
170	All-Optical Signal Processing. *Journal of Lightwave Technology*, **2014**, 32, 660-680	4	314
169	100 Tbit/s free-space data link enabled by three-dimensional multiplexing of orbital angular momentum, polarization, and wavelength. *Optics Letters*, **2014**, 39, 197-200	3	309
168	4 □20 Gbit/s mode division multiplexing over free space using vector modes and a q-plate mode (de)multiplexer. *Optics Letters*, **2015**, 40, 1980-3	3	266
167	Mode division multiplexing using an orbital angular momentum mode sorter and MIMO-DSP over a graded-index few-mode optical fibre. *Scientific Reports*, **2015**, 5, 14931	4.9	173
166	Atmospheric turbulence effects on the performance of a free space optical link employing orbital angular momentum multiplexing. *Optics Letters*, **2013**, 38, 4062-5	3	154
165	Broadband SBS Slow Light in an Optical Fiber. *Journal of Lightwave Technology*, **2007**, 25, 201-206	4	129
164	Spectrally Efficient Direct-Detected OFDM Transmission Incorporating a Tunable Frequency Gap and an Iterative Detection Techniques. *Journal of Lightwave Technology*, **2009**, 27, 5723-5735	4	124
163	Adaptive-optics-based simultaneous pre- and post-turbulence compensation of multiple orbital-angular-momentum beams in a bidirectional free-space optical link. *Optica*, **2014**, 1, 376	8.6	123
162	Spectrally efficient direct-detected OFDM transmission employing an iterative estimation and cancellation technique. *Optics Express*, **2009**, 17, 9099-111	3.3	112
161	Performance metrics and design considerations for a free-space optical orbital-angular-momentum□multiplexed communication link. *Optica*, **2015**, 2, 357	8.6	110
160	Theoretical and Experimental Investigations of Direct-Detected RF-Tone-Assisted Optical OFDM Systems. *Journal of Lightwave Technology*, **2009**, 27, 1332-1339	4	110
159	Orbital Angular Momentum-based Space Division Multiplexing for High-capacity Underwater Optical Communications. *Scientific Reports*, **2016**, 6, 33306	4.9	99
158	Adaptive optics compensation of multiple orbital angular momentum beams propagating through emulated atmospheric turbulence. *Optics Letters*, **2014**, 39, 2845-8	3	95

157	Applied physics. A different angle on light communications. *Science*, **2012**, 337, 655-6	33.3	95
156	Experimental characterization of a 400 Gbit/s orbital angular momentum multiplexed free-space optical link over 120 m. *Optics Letters*, **2016**, 41, 622-5	3	94
155	Line-of-Sight Millimeter-Wave Communications Using Orbital Angular Momentum Multiplexing Combined With Conventional Spatial Multiplexing. *IEEE Transactions on Wireless Communications*, **2017**, 16, 3151-3161	9.6	90
154	Recent advances in high-capacity free-space optical and radio-frequency communications using orbital angular momentum multiplexing. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2017**, 375,	3	85
153	Crosstalk mitigation in a free-space orbital angular momentum multiplexed communication link using 4□4 MIMO equalization. *Optics Letters*, **2014**, 39, 4360-3	3	78
152	Fiber coupler for generating orbital angular momentum modes. *Optics Letters*, **2011**, 36, 4269-71	3	69
151	Sorting Photons by Radial Quantum Number. *Physical Review Letters*, **2017**, 119, 263602	7.4	67
150	Phase correction for a distorted orbital angular momentum beam using a Zernike polynomials-based stochastic-parallel-gradient-descent algorithm. *Optics Letters*, **2015**, 40, 1197-200	3	65
149	Experimental demonstration of a 200-Gbit/s free-space optical link by multiplexing Laguerre-Gaussian beams with different radial indices. *Optics Letters*, **2016**, 41, 3447-50	3	56
148	Optically Efficient Nonlinear Signal Processing. *IEEE Journal of Selected Topics in Quantum Electronics*, **2011**, 17, 320-332	3.8	54
147	Silicon-Based Microring Resonator Modulators for Intensity Modulation. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 149-158	3.8	54
146	High-Capacity Free-Space Optical Communications Between a Ground Transmitter and a Ground Receiver via a UAV Using Multiplexing of Multiple Orbital-Angular-Momentum Beams. *Scientific Reports*, **2017**, 7, 17427	4.9	53
145	Free-space optical communications using orbital-angular-momentum multiplexing combined with MIMO-based spatial multiplexing. *Optics Letters*, **2015**, 40, 4210-3	3	51
144	Atmospheric turbulence mitigation in an OAM-based MIMO free-space optical link using spatial diversity combined with MIMO equalization. *Optics Letters*, **2016**, 41, 2406-9	3	51
143	Experimental demonstration of 20 Gbit/s data encoding and 2 ns channel hopping using orbital angular momentum modes. *Optics Letters*, **2015**, 40, 5810-3	3	50
142	Mode-Division-Multiplexing of Multiple Bessel-Gaussian Beams Carrying Orbital-Angular-Momentum for Obstruction-Tolerant Free-Space Optical and Millimetre-Wave Communication Links. *Scientific Reports*, **2016**, 6, 22082	4.9	49
141	Underwater optical communications using orbital angular momentum-based spatial division multiplexing. *Optics Communications*, **2018**, 408, 21-25	2	48
140	Efficient generation and multiplexing of optical orbital angular momentum modes in a ring fiber by using multiple coherent inputs. *Optics Letters*, **2012**, 37, 3645-7	3	47

139	All-Optical Signal Processing for UltraHigh Speed Optical Systems and Networks. *Journal of Lightwave Technology*, **2012**, 30, 3760-3770	4	46
138	Fiber structure to convert a Gaussian beam to higher-order optical orbital angular momentum modes. *Optics Letters*, **2012**, 37, 3294-6	3	45
137	Broadband frequency translation through time refraction in an epsilon-near-zero material. *Nature Communications*, **2020**, 11, 2180	17.4	42
136	Atmospheric turbulence compensation in orbital angular momentum communications: Advances and perspectives. *Optics Communications*, **2018**, 408, 68-81	2	42
135	SBS-Based Fiber Optical Sensing Using Frequency-Domain Simultaneous Tone Interrogation. *Journal of Lightwave Technology*, **2011**, 29, 1729-1735	4	41
134	Fiber-Based Slow-Light Technologies. *Journal of Lightwave Technology*, **2008**, 26, 3752-3762	4	40
133	44-ns Continuously Tunable Dispersionless Optical Delay Element Using a PPLN Waveguide With Two-Pump Configuration, DCF, and a Dispersion Compensator. *IEEE Photonics Technology Letters*, **2007**, 19, 861-863	2.2	39
132	Turbulence compensation of an orbital angular momentum and polarization-multiplexed link using a data-carrying beacon on a separate wavelength. *Optics Letters*, **2015**, 40, 2249-52	3	38
131	Independent and Simultaneous Monitoring of Chromatic and Polarization-Mode Dispersion in OOK and DPSK Transmission. *IEEE Photonics Technology Letters*, **2007**, 19, 3-5	2.2	36
130	All-Optical Signal Processing Techniques for Flexible Networks. *Journal of Lightwave Technology*, **2019**, 37, 21-35	4	36
129	Communication with a twist. *IEEE Spectrum*, **2016**, 53, 34-39	1.7	35
128	N-dimentional multiplexing link with 1.036-Pbit/s transmission capacity and 112.6-bit/s/Hz spectral efficiency using OFDM-8QAM signals over 368 WDM pol-muxed 26 OAM modes **2014**,		33
127	400-Gbit/s QPSK free-space optical communicationlink based on four-fold multiplexing of Hermite-Gaussian or Laguerre-Gaussian modes by varying both modal indices. *Optics Letters*, **2018**, 43, 3889-3892	3	32
126	160 Gb/s Time-Domain Channel Extraction/Insertion and All-Optical Logic Operations Exploiting a Single PPLN Waveguide. *Journal of Lightwave Technology*, **2009**, 27, 4221-4227	4	31
125	A Single Slow-Light Element for Independent Delay Control and Synchronization on Multiple Gb/s Data Channels. *IEEE Photonics Technology Letters*, **2007**, 19, 1081-1083	2.2	30
124	640 Gb/s All-Optical Regenerator Based on a Periodically Poled Lithium Niobate Waveguide. *Journal of Lightwave Technology*, **2012**, 30, 1829-1834	4	29
123	Silicon-on-Nitride Waveguide With Ultralow Dispersion Over an Octave-Spanning Mid-Infrared Wavelength Range. *IEEE Photonics Journal*, **2012**, 4, 126-132	1.8	28
122	On-Chip Octave-Spanning Supercontinuum in Nanostructured Silicon Waveguides Using Ultralow Pulse Energy. *IEEE Journal of Selected Topics in Quantum Electronics*, **2012**, 18, 1799-1806	3.8	28

121	Low loss hollow-core waveguide on a silicon substrate. *Nanophotonics*, **2012**, 1, 23-29	6.3	26
120	Estimation of the Bit Error Rate for Direct-Detected OFDM Signals With Optically Preamplified Receivers. *Journal of Lightwave Technology*, **2009**, 27, 1340-1346	4	25
119	Vector-mode multiplexing brings an additional approach for capacity growth in optical fibers. *Light: Science and Applications*, **2018**, 7, 18002	16.7	23
118	Orbital angular momentum of light for communications. *Applied Physics Reviews*, **2021**, 8, 041312	17.3	23
117	High-Speed Correlation and Equalization Using a Continuously Tunable All-Optical Tapped Delay Line. *IEEE Photonics Journal*, **2012**, 4, 1220-1235	1.8	22
116	Using all transverse degrees of freedom in quantum communications based on a generic mode sorter. *Optics Express*, **2019**, 27, 10383-10394	3.3	22
115	Multipath Effects in Millimetre-Wave Wireless Communication using Orbital Angular Momentum Multiplexing. *Scientific Reports*, **2016**, 6, 33482	4.9	22
114	Spatial light structuring using a combination of multiple orthogonal orbital angular momentum beams with complex coefficients. *Optics Letters*, **2017**, 42, 991-994	3	20
113	Pattern Dependence of Data Distortion in Slow-Light Elements. *Journal of Lightwave Technology*, **2007**, 25, 1754-1760	4	20
112	Hermite-Gaussian mode sorter. *Optics Letters*, **2018**, 43, 5263-5266	3	20
111	Perspectives on advances in high-capacity, free-space communications using multiplexing of orbital-angular-momentum beams. *APL Photonics*, **2021**, 6, 030901	5.2	20
110	. *Journal of Lightwave Technology*, **2020**, 38, 82-89	4	20
109	Power loss mitigation of orbital-angular-momentum-multiplexed free-space optical links using nonzero radial index Laguerre□Gaussian beams. *Journal of the Optical Society of America B: Optical Physics*, **2017**, 34, 1	1.7	19
108	Orbital-angular-momentum-multiplexed free-space optical communication link using transmitter lenses. *Applied Optics*, **2016**, 55, 2098-103	0.2	19
107	Mitigation for turbulence effects in a 40-Gbit/s orbital-angular-momentum-multiplexed free-space optical link between a ground station and a retro-reflecting UAV using MIMO equalization. *Optics Letters*, **2019**, 44, 5181-5184	3	19
106	Experimental Demonstration of a Coherently Modulated and Directly Detected Optical OFDM System Using an RF-Tone Insertion **2008**,		18
105	32-Gbit/s 60-GHz millimeter-wave wireless communication using orbital angular momentum and polarization multiplexing **2016**,		17
104	**2016**,		16

103	Spatially multiplexed orbital-angular-momentum-encoded single photon and classical channels in a free-space optical communication link. *Optics Letters*, **2017**, 42, 4881-4884	3	15
102	ANN-Based Optical Performance Monitoring of QPSK Signals Using Parameters Derived From Balanced-Detected Asynchronous Diagrams. *IEEE Photonics Technology Letters*, **2011**, 23, 248-250	2.2	15
101	Single-End Adaptive Optics Compensation for Emulated Turbulence in a Bi-Directional 10-Mbit/s per Channel Free-Space Quantum Communication Link Using Orbital-Angular-Momentum Encoding. *Research*, **2019**, 2019, 8326701	7.8	15
100	Demonstration of Tunable Steering and Multiplexing of Two 28 GHz Data Carrying Orbital Angular Momentum Beams Using Antenna Array. *Scientific Reports*, **2016**, 6, 37078	4.9	15
99	25.6-bit/s/Hz spectral efficiency using 16-QAM signals over pol-muxed multiple orbital-angular-momentum modes **2011**,		14
98	Experimental Demonstration of 340 km SSMF Transmission Using a Virtual Single Sideband OFDM Signal that Employs Carrier Suppressed and Iterative Detection Techniques **2008**,		13
97	Digital Modulation of Coherently-Coupled $2times1$ Vertical-Cavity Surface-Emitting Laser Arrays. *IEEE Photonics Technology Letters*, **2019**, 31, 173-176	2.2	13
96	Extending the Dynamic Range of Sweep-Free Brillouin Optical Time-Domain Analyzer. *Journal of Lightwave Technology*, **2015**, 33, 2978-2985	4	12
95	Experimental demonstration of 16 Gbit/s millimeter-wave communications using MIMO processing of 2 OAM modes on each of two transmitter/receiver antenna apertures **2014**,		12
94	OFDM over mm-Wave OAM Channels in a Multipath Environment with Intersymbol Interference **2016**,		12
93	Experimental demonstration of 16-Gbit/s millimeter-wave communications link using thin metamaterial plates to generate data-carrying orbital-angular-momentum beams **2015**,		11
92	Reconfigurable Channel Slicing and Stitching for an Optical Signal to Enable Fragmented Bandwidth Allocation Using Nonlinear Wave Mixing and an Optical Frequency Comb. *Journal of Lightwave Technology*, **2018**, 36, 440-446	4	11
91	Photonic 640-Gb/s Reconfigurable OTDM AddDrop Multiplexer Based on Pump Depletion in a Single PPLN Waveguide. *IEEE Journal of Selected Topics in Quantum Electronics*, **2012**, 18, 709-716	3.8	11
90	Experimental measurements of multipath-induced intra- and inter-channel crosstalk effects in a millimeter-wave communications link using orbital-angular-momentum multiplexing **2015**,		11
89	Silicon microring-based signal modulation for chip-scale optical interconnection. *Applied Physics A: Materials Science and Processing*, **2009**, 95, 1089-1100	2.6	11
88	High-Speed Optical WDM-to-TDM Conversion Using Fiber Nonlinearities. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 1441-1447	3.8	11
87	Advanced Techniques to Increase the Number of Users and Bit Rate in OCDMA Networks. *IEEE Journal of Selected Topics in Quantum Electronics*, **2007**, 13, 1403-1414	3.8	11
86	Correction of Phase Distortion of an OAM Mode using GS Algorithm based Phase Retrieval **2012**,		11

85	Perspective on using multiple orbital-angular-momentum beams for enhanced capacity in free-space optical communication links. *Nanophotonics*, **2020**, 10, 225-233	6.3	11
84	Multichannel SBS Slow Light Using Spectrally Sliced Incoherent Pumping. *Journal of Lightwave Technology*, **2008**, 26, 3763-3769	4	10
83	Performance of real-time adaptive optics compensation in a turbulent channel with high-dimensional spatial-mode encoding. *Optics Express*, **2020**, 28, 15376-15391	3.3	10
82	Demonstration of Multiple Kerr-Frequency-Comb Generation Using Different Lines From Another Kerr Comb Located Up To 50 km Away. *Journal of Lightwave Technology*, **2019**, 37, 579-584	4	9
81	Photonic Generation of Ultra-Wideband Signals via Pulse Compression in a Highly Nonlinear Fiber. *IEEE Photonics Technology Letters*, **2010**, 22, 239-241	2.2	9
80	Experimental Demonstration of Dynamic Bandwidth Allocation Using a MEMS-Actuated Bandwidth-Tunable Microdisk Resonator Filter. *IEEE Photonics Technology Letters*, **2007**, 19, 1508-1510	2.2	9
79	Demonstration of using two aperture pairs combined with multiple-mode receivers and MIMO signal processing for enhanced tolerance to turbulence and misalignment in a 10 Gbit/s QPSK FSO link. *Optics Letters*, **2020**, 45, 3042-3045	3	9
78	Turbulence-resilient pilot-assisted self-coherent free-space optical communications using automatic optoelectronic mixing of many modes. *Nature Photonics*, **2021**, 15, 743-750	33.9	9
77	**2016**,		8
76	Multi-channel 100-Gbit/s DQPSK data exchange using bidirectional degenerate four-wave mixing. *Optics Express*, **2011**, 19, 3332-8	3.3	8
75	Demonstration of 12.8-bit/s/Hz Spectral Efficiency using 16-QAM Signals over Multiple Orbital-Angular-Momentum Modes **2011**,		8
74	Dynamic spatiotemporal beams that combine two independent and controllable orbital-angular-momenta using multiple optical-frequency-comb lines. *Nature Communications*, **2020**, 11, 4099	17.4	8
73	Using Orbital Angular Momentum Modes for Optical Transmission **2014**,		7
72	Introduction to the Issue on Optical Modulators Technologies and Applications. *IEEE Journal of Selected Topics in Quantum Electronics*, **2013**, 19, 3-5	3.8	7
71	Orthogonal tributary channel exchange of 160-Gbit/s pol-muxed DPSK signal. *Optics Express*, **2010**, 18, 16995-7008	3.3	7
70	Experimental Demonstration of Reduced Complexity 43-Gb/s RZ-DQPSK Rate-Tunable Receiver. *IEEE Photonics Technology Letters*, **2008**, 20, 1166-1168	2.2	7
69	Direct-detected polarization division multiplexed OFDM systems with self-polarization diversity **2008**,		7
68	Simultaneous and Independent Monitoring of OSNR, Chromatic and Polarization Mode Dispersion for NRZ-OOK, DPSK and Duobinary **2007**,		7

67	Self-Coherent Decision-Feedback-Directed 40-Gb/s DQPSK Receiver. *IEEE Photonics Technology Letters*, **2007**, 19, 828-830	2.2	7
66	Utilizing adaptive optics to mitigate intra-modal-group power coupling of graded-index few-mode fiber in a 200-Gbit/s mode-division-multiplexed link. *Optics Letters*, **2020**, 45, 3577-3580	3	7
65	High-fidelity spatial mode transmission through a 1-km-long multimode fiber via vectorial time reversal. *Nature Communications*, **2021**, 12, 1866	17.4	7
64	Increasing system tolerance to turbulence in a 100-Gbit/s QPSK free-space optical link using both mode and space diversity. *Optics Communications*, **2021**, 480, 126488	2	7
63	Demonstration of 8-mode 32-Gbit/s millimeter-wave free-space communication link using 4 orbital-angular-momentum modes on 2 polarizations **2014**,		6
62	Utilizing phase delays of an integrated pixel-array structure to generate orbital-angular-momentum beams with tunable orders and a broad bandwidth. *Optics Letters*, **2020**, 45, 4144-4147	3	6
61	Experimental mitigation of the effects of the limited size aperture or misalignment by singular-value-decomposition-based beam orthogonalization in a free-space optical link using Laguerre-Gaussian modes. *Optics Letters*, **2020**, 45, 6310-6313	3	6
60	Coherent optical wireless communication link employing orbital angular momentum multiplexing in a ballistic and diffusive scattering medium. *Optics Letters*, **2019**, 44, 691-694	3	6
59	Modal coupling and crosstalk due to turbulence and divergence on free space THz links using multiple orbital angular momentum beams. *Scientific Reports*, **2021**, 11, 2110	4.9	6
58	Light, the universe and everything 12 Herculean tasks for quantum cowboys and black diamond skiers. *Journal of Modern Optics*, **2018**, 65, 1261-1308	1.1	5
57	Experimental demonstration of beaconless beam displacement tracking for an orbital angular momentum multiplexed free-space optical link. *Optics Letters*, **2018**, 43, 2392-2395	3	5
56	Tunable Homodyne Detection of an Incoming QPSK Data Signal Using Two Fixed Pump Lasers. *Journal of Lightwave Technology*, **2015**, 33, 1344-1350	4	5
55	Space division multiplexing in a basis of vector modes **2014**,		5
54	10 Gbit/s tributary channel exchange of 160 Gbit/ssignals using periodically poled lithium niobate. *Optics Letters*, **2011**, 36, 630-2	3	5
53	Multiprobe Time Reversal for High-Fidelity Vortex-Mode-Division Multiplexing Over a Turbulent Free-Space Link. *Physical Review Applied*, **2021**, 15,	4.3	5
52	Adiabatic Frequency Conversion Using a Time-Varying Epsilon-Near-Zero Metasurface. *Nano Letters* , **2021**, 21, 5907-5913	11.5	5
51	Invited Article: Division and multiplication of the state order for data-carrying orbital angular momentum beams. *APL Photonics*, **2016**, 1, 090802	5.2	5
50	Limited-size aperture effects in an orbital-angular-momentum-multiplexed free-space optical data link between a ground station and a retro-reflecting UAV. *Optics Communications*, **2019**, 450, 241-245	2	4

49	Multimode Communications Using Orbital Angular Momentum **2013**, 569-615		4
48	Reconfigurable Multifunctional Operation Using Optical Injection-Locked Vertical-Cavity Surface-Emitting Lasers. *Journal of Lightwave Technology*, **2009**, 27, 2958-2963	4	4
47	Synchronization Monitoring of I/Q Data and Pulse Carving Misalignment for a Parallel-Type RZ-DQPSK Transmitter by Measuring RF Clock Tone/Low Frequency Power. *IEEE Photonics Technology Letters*, **2008**, 20, 2138-2140	2.2	4
46	SOA-Assisted Data-Polarization-Insensitive Wavelength Conversion in a PPLN Waveguide. *Journal of Lightwave Technology*, **2008**, 26, 1690-1695	4	4
45	CTH01-5: A Novel Optical CDMA Modulation Scheme: Code Cycle Modulation. *IEEE Global Telecommunications Conference (GLOBECOM)*, **2006**,		4
44	Simultaneous turbulence mitigation and channel demultiplexing for two 100 Gbit/s orbital-angular-momentum multiplexed beams by adaptive wavefront shaping and diffusing. *Optics Letters*, **2020**, 45, 702-705	3	4
43	Localization from the unique intensity gradient of an orbital-angular-momentum beam. *Optics Letters*, **2017**, 42, 395-398	3	4
42	Demonstration of Tunable Optical Aggregation of QPSK to 16-QAM Over Optically Generated Nyquist Pulse Trains Using Nonlinear Wave Mixing and a Kerr Frequency Comb. *Journal of Lightwave Technology*, **2020**, 38, 359-365	4	4
41	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2021**, 27, 1-16	3.8	4
40	Photon Acceleration Using a Time-Varying Epsilon-near-Zero Metasurface. *ACS Photonics*, **2021**, 8, 716-720	6.3	4
39	Experimental demonstration of a dual-channel E-band communication link using commercial impulse radios with orbital angular momentum multiplexing **2017**,		3
38	Performance metrics and design parameters for an FSO communications link based on multiplexing of multiple orbital-angular-momentum beams **2014**,		3
37	Review of Robust Data Exchange Using Optical Nonlinearities. *International Journal of Optics*, **2012**, 2012, 1-25	0.9	3
36	Broadband low chromatic dispersion and supercontinuum generation in a step-index fiber and an OAM-supporting vortex fiber with a submicron slot **2013**,		3
35	High-Purity Generation and Power-Efficient Multiplexing of Optical Orbital Angular Momentum (OAM) Modes in a Ring Fiber for Spatial-Division Multiplexing Systems **2012**,		3
34	Spatial-Mode Multicasting of a Single 100-Gbit/s Orbital Angular Momentum (OAM) Mode onto Multiple OAM Modes **2012**,		3
33	Ultimate Sensitivity for Optically Preamplified Direct-Detected OFDM Systems Using Spectrally Matched Optical Filters. *IEEE Photonics Technology Letters*, **2009**, 21, 1764-1766	2.2	3
32	Experimental demonstration of 1600 km SSMF transmission of a generalized direct detection optical virtual SSB-OFDM system **2008**,		3

31	Generating spectral-efficient duobinary data format from silicon ring resonator modulators **2008**,		3
30	Training of neural networks to perform optical performance monitoring of a combination of accumulated signal nonlinearity, CD, PMD, and OSNR **2008**,		3
29	Adjustable Chirp Injection-Locked 1.55-μm VCSELs for Enhanced Chromatic Dispersion Compensation at 10-Gbit/s **2008**,		3
28	Multi-format Continuously Variable Bitrate DPSK/OOK Demodulating Receiver Design **2006**,		3
27	Experimental Demonstration of Crosstalk Reduction to Achieve Turbulence-Resilient Multiple-OAM-Beam Free-Space Optical Communications using Pilot Tones to Mix Beams at the Receiver **2020**,		3
26	Optical Mitigation of Interchannel Crosstalk for Multiple Spectrally Overlapped 20-GBd QPSK/16-QAM WDM Channels Using Nonlinear Wave Mixing. *Journal of Lightwave Technology*, **2019**, 37, 548-554	4	3
25	MIMO Equalization to Mitigate Turbulence in a 2-Channel 40-Gbit/s QPSK Free-Space Optical 100-m Round-Trip Orbital-Angular-Momentum-Multiplexed Link Between a Ground Station and a Retro-Reflecting UAV **2018**,		3
24	Dividing and multiplying the mode order for orbital-angular-momentum beams **2015**,		2
23	Demonstration of OAM Mode Distortions Monitoring using Interference-Based Phase Reconstruction **2012**,		2
22	Optical performance monitoring to enable robust and reconfigurable optical high-capacity networks **2009**,		2
21	Experimental Synchronization Monitoring of I/Q Data and Pulse-Carving Temporal Misalignment for a Serial-Type 80-Gbit/s RZ-DQPSK Transmitter **2008**,		2
20	40-GHz CSRZ Optical Pulse Generation Using a 10-GHz Mach-Zehnder Modulator and a 25-ps Delay Line Interferometer. *Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS*, **2007**,		2
19	Low Vπ modulators containing InGaAsP–InP microdisk phase modulators. *Applied Physics Letters*, **2007**, 90, 161121	3.4	2
18	Variable Bit Rate Optical CDMA Networks Using Multiple Pulse Position Modulation **2007**,		2
17	Demonstration of Turbulence Resiliency in a Mode-, Polarization-, and Wavelength-Multiplexed Free-Space Optical Link Using Pilot-Assisted Optoelectronic Beam Mixing. *Journal of Lightwave Technology*, **2022**, 40, 588-596	4	2
16	Demonstration of Recovering Orbital-Angular-Momentum Multiplexed Channels Using a Tunable, Broadband Pixel-Array-based Photonic-Integrated-Circuit Receiver. *Journal of Lightwave Technology*, **2021**, 1-1	4	2
15	Simultaneous turbulence mitigation and channel demultiplexing using a single multi-plane light convertor for a free-space optical link with two 100-Gbit/s OAM channels. *Optics Communications*, **2021**, 501, 127359	2	2
14	Analysis of Gaussian Optical Receivers. *Journal of Lightwave Technology*, **2013**, 31, 2687-2693	4	1

13	Increasing the spectral bandwidth of optical frequency comb generation in a microring resonator using dispersion tailoring slotted waveguide **2013**,		1
12	Controllable optical demultiplexing using continuously tunable optical parametric delay at 160-Gbit/s with **2009**,		1
11	Protocols to eliminate tuning penalties for packet-switched WDM star networks with large tuning latency. *Journal of High Speed Networks*, **1997**, 6, 15-31	0.4	1
10	Experimental demonstration of compensating the I/Q imbalance and bias deviation of the Mach-Zehnder modulator for an RF-tone assisted optical OFDM system **2008**,		1
9	Performance prospects of compact silicon microring-based electro-optic modulator for analog optical links **2008**,		1
8	Polarization-Based 43 Gb/s RZ-DQPSK Receiver Design Employing a Single Delay-Line Interferometer **2007**,		1
7	Generating a Twisted Spatiotemporal Wave Packet Using Coherent Superposition of Structured Beams with Different Frequencies **2019**,		1
6	Vectorial Phase Conjugation for High-Fidelity Mode Transmission Through Multimode Fiber **2020**,		1
5	High-capacity Free-space Optical Communications Using Multiplexing of Multiple OAM Beams **2021** , 357-400		1
4	Experimental Demonstration of a 100-Gbit/s 16-QAM Free-Space Optical Link Using a Structured Optical Bottle Beam to Circumvent Obstructions. *Journal of Lightwave Technology*, **2022**, 1-1	4	1
3	Continuous delay tunability using a combination of three types of fiber Bragg gratings, wavelength conversion, and wavelength multicasting with a frequency comb. *Optics Communications*, **2020**, 464, 125431	2	0
2	Single-End Adaptive Optics Compensation for Emulated Turbulence in a Bi-Directional 10-Mbit/s per Channel Free-Space Quantum Communication Link Using Orbital-Angular-Momentum Encoding. *Research*, **2019**, 2019, 1-10	7.8	0
1	Switchable detector array scheme to reduce the effect of single-photon detectorʼs deadtime in a multi-bit/photon quantum link. *Optics Communications*, **2019**, 441, 132-132	2	