

Zhe Zhao

List of Publications by Year in descending order

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Version: 2024-02-01

49
papers

2,346
citations

361296

20
h-index

501076

28
g-index

50
all docs

50
docs citations

50
times ranked

1770
citing authors

#	ARTICLE	IF	CITATIONS
1	High-capacity millimetre-wave communications with orbital angular momentum multiplexing. <i>Nature Communications</i> , 2014, 5, 4876.	5.8	972
2	Performance metrics and design considerations for a free-space optical orbital-angular-momentum multiplexed communication link. <i>Optica</i> , 2015, 2, 357.	4.8	164
3	Orbital Angular Momentum-based Space Division Multiplexing for High-capacity Underwater Optical Communications. <i>Scientific Reports</i> , 2016, 6, 33306.	1.6	156
4	Recent advances in high-capacity free-space optical and radio-frequency communications using orbital angular momentum multiplexing. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20150439.	1.6	131
5	Line-of-Sight Millimeter-Wave Communications Using Orbital Angular Momentum Multiplexing Combined With Conventional Spatial Multiplexing. <i>IEEE Transactions on Wireless Communications</i> , 2017, 16, 3151-3161.	6.1	130
6	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. <i>Scientific Reports</i> , 2017, 7, 17427.	1.6	81
7	Mode-Division-Multiplexing of Multiple Bessel-Gaussian Beams Carrying Orbital-Angular-Momentum for Obstruction-Tolerant Free-Space Optical and Millimetre-Wave Communication Links. <i>Scientific Reports</i> , 2016, 6, 22082.	1.6	63
8	400-Gbit/s QPSK free-space optical communication link based on four-fold multiplexing of Hermite-Gaussian or Laguerre-Gaussian modes by varying both modal indices. <i>Optics Letters</i> , 2018, 43, 3889.	1.7	55
9	Perspectives on advances in high-capacity, free-space communications using multiplexing of orbital-angular-momentum beams. <i>APL Photonics</i> , 2021, 6, .	3.0	53
10	Turbulence-resilient pilot-assisted self-coherent free-space optical communications using automatic optoelectronic mixing of many modes. <i>Nature Photonics</i> , 2021, 15, 743-750.	15.6	45
11	Multipath Effects in Millimetre-Wave Wireless Communication using Orbital Angular Momentum Multiplexing. <i>Scientific Reports</i> , 2016, 6, 33482.	1.6	37
12	Experimental Mitigation of Atmospheric Turbulence Effect Using Pre-Signal Combining for Uni- and Bi-Directional Free-Space Optical Links With Two 100-Gbit/s OAM-Multiplexed Channels. <i>Journal of Lightwave Technology</i> , 2020, 38, 82-89.	2.7	33
13	Orbital-angular-momentum-based reconfigurable optical switching and routing. <i>Photonics Research</i> , 2016, 4, B5.	3.4	31
14	Spatial light structuring using a combination of multiple orthogonal orbital angular momentum beams with complex coefficients. <i>Optics Letters</i> , 2017, 42, 991.	1.7	31
15	Adiabatic Frequency Conversion Using a Time-Varying Epsilon-Near-Zero Metasurface. <i>Nano Letters</i> , 2021, 21, 5907-5913.	4.5	30
16	32-Gbit/s 60-GHz millimeter-wave wireless communication using orbital angular momentum and polarization multiplexing. , 2016, , .		29
17	Dynamic spatiotemporal beams that combine two independent and controllable orbital-angular-momenta using multiple optical-frequency-comb lines. <i>Nature Communications</i> , 2020, 11, 4099.	5.8	25
18	Photon Acceleration Using a Time-Varying Epsilon-near-Zero Metasurface. <i>ACS Photonics</i> , 2021, 8, 716-720.	3.2	24

#	ARTICLE	IF	CITATIONS
19	A dual-channel 60 GHz communications link using patch antenna arrays to generate data-carrying orbital-angular-momentum beams. , 2016, , .		22
20	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.	1.6	21
21	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.	2.8	21
22	Demonstration of Tunable Steering and Multiplexing of Two 28GHz Data Carrying Orbital Angular Momentum Beams Using Antenna Array. Scientific Reports, 2016, 6, 37078.	1.6	20
23	Utilizing multiplexing of structured THz beams carrying orbital-angular-momentum for high-capacity communications. Optics Express, 2022, 30, 25418.	1.7	19
24	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, , .		17
25	Experimental demonstration of 16-Gbit/s millimeter-wave communications link using thin metamaterial plates to generate data-carrying orbital-angular-momentum beams. , 2015, , .		17
26	OFDM over mm-Wave OAM Channels in a Multipath Environment with Intersymbol Interference. , 2016, , .		17
27	Invited Article: Division and multiplication of the state order for data-carrying orbital angular momentum beams. APL Photonics, 2016, 1, .	3.0	16
28	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.	2.7	14
29	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.	1.7	11
30	Simulation of near-diffraction- and near-dispersion-free OAM pulses with controllable group velocity by combining multiple frequencies, each carrying a Bessel mode. Optics Letters, 2021, 46, 4678.	1.7	9
31	Experimental demonstration of a dual-channel E-band communication link using commercial impulse radios with orbital angular momentum multiplexing. , 2017, , .		8
32	Modal properties of a beam carrying OAM generated by a circular array of multiple ring-resonator emitters. Optics Letters, 2021, 46, 4722.	1.7	8
33	Synthesis of near-diffraction-free orbital-angular-momentum space-time wave packets having a controllable group velocity using a frequency comb. Optics Express, 2022, 30, 16712.	1.7	7
34	Performance metrics and design parameters for an FSO communications link based on multiplexing of multiple orbital-angular-momentum beams. , 2014, , .		6
35	Fundamental System-Degrading Effects in THz Communications Using Multiple OAM beams With Turbulence. , 2020, , .		6
36	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, , .		5

