

Haoqian Song

List of Publications by Year in descending order

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39
papers

521
citations

759055

12
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677027

22
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all docs

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docs citations

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times ranked

330
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	1.6	81
2	400-Gbit/s QPSK free-space optical communication link based on four-fold multiplexing of Hermiteâ€“Gaussian or Laguerreâ€“Gaussian modes by varying both modal indices. Optics Letters, 2018, 43, 3889.	1.7	55
3	Perspectives on advances in high-capacity, free-space communications using multiplexing of orbital-angular-momentum beams. APL Photonics, 2021, 6, .	3.0	53
4	Turbulence-resilient pilot-assisted self-coherent free-space optical communications using automatic optoelectronic mixing of many modes. Nature Photonics, 2021, 15, 743-750.	15.6	45
5	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. Journal of Lightwave Technology, 2020, 38, 82-89.	2.7	33
6	Adiabatic Frequency Conversion Using a Time-Varying Epsilon-Near-Zero Metasurface. Nano Letters, 2021, 21, 5907-5913.	4.5	30
7	Dynamic spatiotemporal beams that combine two independent and controllable orbital-angular-momenta using multiple optical-frequency-comb lines. Nature Communications, 2020, 11, 4099.	5.8	25
8	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
9	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
10	Utilizing multiplexing of structured THz beams carrying orbital-angular-momentum for high-capacity communications. Optics Express, 2022, 30, 25418.	1.7	19
11	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
12	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.	1.0	13
13	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 Laguerreâ€“Gaussian modes. Optics Letters, 2020, 45, 6310.	1.7	11
14	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
15	Single-pixel identification of 2-dimensional objects by using complex Laguerreâ€“Gaussian spectrum containing both azimuthal and radial modal indices. Optics Communications, 2021, 481, 126557.	1.0	8
16	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
17	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.	1.7	8
18	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.	1.0	7

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19	Synthesis of near-diffraction-free orbital-angular-momentum space-time wave packets having a controllable group velocity using a frequency comb. <i>Optics Express</i> , 2022, 30, 16712.	1.7	7
20	Tunable Doppler shift using a time-varying epsilon-near-zero thin film near 1550 nm. <i>Optics Letters</i> , 2021, 46, 3444.	1.7	6
21	Simultaneous turbulence mitigation and channel demultiplexing for two 100-Gbit/s orbital-angular-momentum multiplexed beams by adaptive wavefront shaping and diffusing. <i>Optics Letters</i> , 2020, 45, 702.	1.7	6
22	Demonstration of generating a 100 Gbit/s orbital-angular-momentum beam with a tunable mode order over a range of wavelengths using an integrated broadband pixel-array structure. <i>Optics Letters</i> , 2021, 46, 4765.	1.7	5
23	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
24	Dynamic aerosol and dynamic air-water interface curvature effects on a 2-Gbit/s free-space optical link using orbital-angular-momentum multiplexing. <i>Nanophotonics</i> , 2022, 11, 885-895.	2.9	5
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, , .		4
26	Demonstration of Recovering Orbital-Angular-Momentum Multiplexed Channels Using a Tunable, Broadband Pixel-Array-Based Photonic-Integrated-Circuit Receiver. <i>Journal of Lightwave Technology</i> , 2022, 40, 1346-1352.	2.7	4
27	Demonstration of turbulence mitigation in a 200-Gbit/s orbital-angular-momentum multiplexed free-space optical link using simple power measurements for determining the modal crosstalk matrix. <i>Optics Letters</i> , 0, , .	1.7	4
28	Experimental Demonstration of an Integrated Broadband Pixel-Array Structure Generating Two Tunable Orbital-Angular-Momentum Mode Values and Carrying 100-Gbit/s QPSK Data. , 2021, , .		3
29	Demonstration of QPSK data correlation and equalization using a tunable optical tapped delay line based on orbital angular momentum mode delays. <i>Optics Communications</i> , 2022, 503, 127438.	1.0	2
30	Demonstration of Turbulence Resiliency in a Mode-, Polarization-, and Wavelength-Multiplexed Free-Space Optical Link using Pilot Tones and Optoelectronic Wave Mixing. , 2020, , .		2
31	Experimental Demonstration of a 100-Gbit/s 16-QAM Free-Space Optical Link Using a Structured Optical "Bottle Beam" to Circumvent Obstructions. <i>Journal of Lightwave Technology</i> , 2022, 40, 3277-3284.	2.7	2
32	Causes and mitigation of modal crosstalk in OAM multiplexed optical communication links. , 2021, , 259-289.		1
33	Experimental Investigation on Degradation of an Orbital- Angular-Momentum Beam Passing Through Dynamic Aerosol and Air-Water Interface for Air-to-Water Communications. , 2021, , .		1
34	Near-Diffraction- and Near-Dispersion-Free OAM Pulse Having a Controllable Group Velocity by Coherently Combining Different Bessel Beams Based on Space-Time Correlations. , 2020, , .		1
35	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. <i>Research</i> , 2019, 2019, 1-10.	2.8	1
36	PSA Design, Counting Longitudinal Chromatic Dispersion Fluctuation in Highly Nonlinear Fiber. , 2018, , .		0

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37	Switchable detector array scheme to reduce the effect of single-photon detector's™s deadtime in a multi-bit/photon quantum link. Optics Communications, 2019, 441, 132-137.	1.0	0
38	"Hiding" a Low-Intensity 50-Gbit/s QPSK Free-Space Optical Beam That Co-Axially Propagates on the Same Wavelength with a High-Intensity 50-Gbit/s QPSK Optical Beam using Orthogonal Mode Multiplexing. , 2019, , .		0
39	Space-time light sheet with a controllable group velocity and reduced diffraction by combining multiple frequencies each carrying multiple Laguerre-Gaussian modes. Optics Communications, 2022, 520, 128477.	1.0	0