

Haoqian Song

List of Publications by Year in descending order

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Version: 2024-02-01

39
papers

521
citations

758635

12
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676716

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40
docs citations

40
times ranked

330
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	Demonstration of Turbulence Resiliency in a Mode-, Polarization-, and Wavelength-Multiplexed Free-Space Optical Link Using Pilot-Assisted Optoelectronic Beam Mixing. <i>Journal of Lightwave Technology</i> , 2022, 40, 588-596.	2.7	14
5	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
6	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
7	Space-time light sheet with a controllable group velocity and reduced diffraction by combining multiple frequencies each carrying multiple Laguerre-Gaussian modes. <i>Optics Communications</i> , 2022, 520, 128477.	1.0	0
8	Utilizing multiplexing of structured THz beams carrying orbital-angular-momentum for high-capacity communications. <i>Optics Express</i> , 2022, 30, 25418.	1.7	19
9	Increasing system tolerance to turbulence in a 100-Gbit/s QPSK free-space optical link using both mode and space diversity. <i>Optics Communications</i> , 2021, 480, 126488.	1.0	13
10	Single-pixel identification of 2-dimensional objects by using complex Laguerre-Gaussian spectrum containing both azimuthal and radial modal indices. <i>Optics Communications</i> , 2021, 481, 126557.	1.0	8
11	Modal coupling and crosstalk due to turbulence and divergence on free space THz links using multiple orbital angular momentum beams. <i>Scientific Reports</i> , 2021, 11, 2110.	1.6	21
12	Causes and mitigation of modal crosstalk in OAM multiplexed optical communication links. , 2021, , 259-289.		1
13	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
14	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
15	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
16	Adiabatic Frequency Conversion Using a Time-Varying Epsilon-Near-Zero Metasurface. <i>Nano Letters</i> , 2021, 21, 5907-5913.	4.5	30
17	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
18	Modal properties of a beam carrying OAM generated by a circular array of multiple ring-resonator emitters. <i>Optics Letters</i> , 2021, 46, 4722.	1.7	8

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	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
22	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
23	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
24	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
25	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
26	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
27	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.	1.7	6
28	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
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	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	Switchable detector array scheme to reduce the effect of single-photon detector's deadtime in a multi-bit/photon quantum link. Optics Communications, 2019, 441, 132-137.	1.0	0
32	"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
33	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
34	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.	2.8	1
35	PSA Design, Counting Longitudinal Chromatic Dispersion Fluctuation in Highly Nonlinear Fiber. , 2018, , .		0
36	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

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37	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. Optics Letters, 2018, 43, 3889.	1.7	55
38	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
39	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. Optics Letters, 0, , .	1.7	4