

Hao Song

List of Publications by Year in descending order

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687220

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docs citations

44
times ranked

330
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#	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. Optics Communications, 2022, 503, 127438.	1.0	2
2	Demonstration of Recovering Orbital-Angular-Momentum Multiplexed Channels Using a Tunable, Broadband Pixel-Array-Based Photonic-Integrated-Circuit Receiver. Journal of Lightwave Technology, 2022, 40, 1346-1352.	2.7	4
3	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
4	Experimental Demonstration of Sub-THz Wireless Communications Using Multiplexing of Laguerre-Gaussian Beams When Varying two Different Modal Indices. Journal of Lightwave Technology, 2022, 40, 3285-3292.	2.7	13
5	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, 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. Optics Express, 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. Optics Communications, 2022, 520, 128477.	1.0	0
8	Utilizing multiplexing of structured THz beams carrying orbital-angular-momentum for high-capacity communications. Optics Express, 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. Optics Communications, 2021, 480, 126488.	1.0	13
10	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
11	Causes and mitigation of modal crosstalk in OAM multiplexed optical communication links. , 2021, , 259-289.		1
12	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
13	Photon Acceleration Using a Time-Varying Epsilon-near-Zero Metasurface. ACS Photonics, 2021, 8, 716-720.	3.2	24
14	Perspectives on advances in high-capacity, free-space communications using multiplexing of orbital-angular-momentum beams. APL Photonics, 2021, 6, .	3.0	53
15	Tunable Doppler shift using a time-varying epsilon-near-zero thin film near 1550 nm. Optics Letters, 2021, 46, 3444.	1.7	6
16	Adiabatic Frequency Conversion Using a Time-Varying Epsilon-Near-Zero Metasurface. Nano Letters, 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. Optics Letters, 2021, 46, 4765.	1.7	5
18	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

#	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	Orbital angular momentum of light for communications. Applied Physics Reviews, 2021, 8, .	5.5	137
23	Demonstration of a Tunable, Broadband Pixel-Array-based Photonic-Integrated-Circuit Receiver for Recovering Two 100-Gbit/s QPSK Orbital-Angular-Momentum Multiplexed Channels. , 2021, , .		2
24	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
25	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
26	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
27	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
28	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
29	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.	1.7	13
30	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.	1.7	10
31	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
32	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
33	"Hiding" a low-intensity 50-Gbit/s QPSK free-space OAM beam using an orthogonal coaxial high-intensity 50-Gbit/s QPSK beam. Applied Optics, 2020, 59, 7448.	0.9	1
34	Demonstrating the use of OAM modes to facilitate the networking functions of carrying channel header information and orthogonal channel coding. Optics Letters, 2020, 45, 4381.	1.7	0
35	Demonstration of Turbulence Resiliency in a Mode-, Polarization-, and Wavelength-Multiplexed Free-Space Optical Link using Pilot Tones and Optoelectronic Wave Mixing. , 2020, , .		2
36	"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

#	ARTICLE	IF	CITATIONS
37	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.	1.7	37
38	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
39	Using an Integrated Silicon Emitter to Generate Two Coaxial Orbital-Angular-Momentum Beams with Tunable Mode Orders and Broad Bandwidth. , 2019, , .		1
40	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
41	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
42	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
43	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