

# Hongzhan Liu

## List of Publications by Year in descending order

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102  
papers

1,295  
citations

430874

18  
h-index

454955

30  
g-index

102  
all docs

102  
docs citations

102  
times ranked

785  
citing authors

#	ARTICLE	IF	CITATIONS
1	Elliptical Pearcey beam. Optics Communications, 2022, 504, 127475.	2.1	9
2	Singular characteristics of one-dimensional Fibonacci optical waveguide networks composed of $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e2392" altimg="si469.svg"} \rangle \langle \text{mml:mi mathvariant="script"} \rangle \text{PT} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -symmetric elements. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 135, 114992.	2.7	4
3	Multiple and off-axis optical bottles from the chirped circular Pearcey Gaussian vortex beams. Optics Express, 2022, 30, 1762.	3.4	9
4	Hybrid Dual-Hop RF/FSO Terrestrial-Deep Space Communication System under Solar Scintillation during Superior Solar Conjunction. Applied Sciences (Switzerland), 2022, 12, 619.	2.5	4
5	A design of dual guided modes ring-based photonic crystal fiber supporting 170 $\hat{\epsilon}\% + \hat{\epsilon}\% 62$ OAM modes with large effective mode field area. Applied Physics B: Lasers and Optics, 2022, 128, 1.	2.2	5
6	Rolling Surface Defect Inspection for Drum-Shaped Rollers Based on Deep Learning. IEEE Sensors Journal, 2022, 22, 8693-8700.	4.7	15
7	Generation and conversion of a dual-band Laguerre-Gaussian beam with different OAM based on a bilayer metasurface. Optical Materials Express, 2022, 12, 1163.	3.0	7
8	Multifunctional Optical Vortex Beam Generator via Cross-Phase Based on Metasurface. Nanomaterials, 2022, 12, 653.	4.1	5
9	Autofocusing self-imaging: symmetric Pearcey Talbot-like effect. Optics Express, 2022, 30, 14146.	3.4	5
10	High-gain narrowband radio frequency signal amplifier based on a dual-loop optoelectronic oscillator. Optics Express, 2022, 30, 13994.	3.4	4
11	Electronically Controlled Time-Domain Integral Average Depolarizer Based on a Barium Titanate (BTO) Metasurface. Nanomaterials, 2022, 12, 1228.	4.1	0
12	Shaping autofocusing Airy beams through the modification of Fourier spectrum. Optics Express, 2022, 30, 232.	3.4	1
13	Dual-channel metasurfaces for independent and simultaneous display in near-field and far-field. Optics Express, 2022, 30, 18434.	3.4	3
14	Band-tunable achromatic metalens based on phase change material. Optics Express, 2022, 30, 17541.	3.4	6
15	Abruptly Autofocusing Twisted Optical Bottle Beams. Physical Review Applied, 2022, 17, .	3.8	4
16	A Novel System of Mixed RF/FSO UAV Communication Based on MRR and RIS by Adopting Hybrid Modulation. Photonics, 2022, 9, 379.	2.0	3
17	Emotion Classification of Text Based on BERT and Broad Learning System. Lecture Notes in Computer Science, 2021, , 382-396.	1.3	4
18	Tightly focusing evolution of the auto-focusing linear polarized circular Pearcey Gaussian vortex beams. Chaos, Solitons and Fractals, 2021, 143, 110608.	5.1	14

#	ARTICLE	IF	CITATIONS
19	Near-infrared thermally modulated varifocal metalens based on the phase change material $Sb_2S_3$ . Optics Express, 2021, 29, 7925.	3.4	25
20	Multifunctional metalens generation using bilayer all-dielectric metasurfaces. Optics Express, 2021, 29, 9332.	3.4	32
21	Electrically-Driven Zoom Metalens Based on Dynamically Controlling the Phase of Barium Titanate (BTO) Column Antennas. Nanomaterials, 2021, 11, 729.	4.1	5
22	Ultrawide Photonic Bandgap and Ultrastrong Photonic Localization Produced by Series of Periodic Networks. Annalen Der Physik, 2021, 533, 2000584.	2.4	5
23	Symmetric Pearcey Gaussian beams. Optics Letters, 2021, 46, 2461.	3.3	33
24	Multifunctional metalens generation using bilayer all-dielectric metasurfaces: erratum. Optics Express, 2021, 29, 18304.	3.4	2
25	Flexible Control of Two-Channel Transmission and Group Delay in an Optomechanical System with Double Quantum Dots Driven by External Field. Nanomaterials, 2021, 11, 1554.	4.1	0
26	Smooth Surface Defect Detection by Deep Learning Based on Wrapped Phase Map. IEEE Sensors Journal, 2021, 21, 16236-16244.	4.7	10
27	Generation and control of dynamically tunable circular Pearcey beams with annular spiral-zone phase. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	5.1	9
28	Active Modulating the Intensity of Bifocal Metalens with Electrically Tunable Barium Titanate (BTO) Nanofins. Nanomaterials, 2021, 11, 2023.	4.1	11
29	A Bifunctional Silicon Dielectric Metasurface Based on Quasi-Bound States in the Continuum. Nanomaterials, 2021, 11, 2357.	4.1	5
30	Efficient identification of orbital angular momentum modes carried by Bessel Gaussian beams in oceanic turbulence channels using convolutional neural network. Optics Communications, 2021, 498, 127251.	2.1	14
31	Singular systematic phases, transparencies, and invisibilities produced by parity-time-symmetric Thue-Morse optical waveguide networks. Results in Physics, 2021, 30, 104763.	4.1	3
32	Switchable Multifunctional Meta-Surface Composed by Dielectric-Metal Hybrid Antenna Array Architecture. Nanomaterials, 2021, 11, 2862.	4.1	1
33	Dynamic generation of giant linear and circular dichroism via phase-change metasurface. Optics Express, 2021, 29, 40759.	3.4	15
34	Singular optical characteristics generated by Fibonacci multilayers composed of $PT$ -symmetric elements. Results in Physics, 2021, 31, 104993.	4.1	2
35	Efficient point-to-point manipulated visible meta-vortex lenses with arbitrary orbital angular momentum. Nanotechnology, 2020, 31, 035702.	2.6	10
36	Abruptly autofocusing chirped ring Pearcey Gaussian vortex beams with caustics state in the nonlinear medium. Optics Express, 2020, 28, 425.	3.4	14

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37	Optimization of the All-Optical Switching Constructed from Photonic Bandgap Network. <i>Physica Status Solidi (B): Basic Research</i> , 2020, 257, 1900702.	1.5	2
38	Metasurface Spiral Focusing Generators with Tunable Orbital Angular Momentum Based on Slab Silicon Nitride Waveguide and Vanadium Dioxide (VO <sub>2</sub> ). <i>Nanomaterials</i> , 2020, 10, 1864.	4.1	7
39	Performance Improvement for Wireless Sensors Networks by Adopting Hybrid Subcarrier Intensity Modulation Over Exponentiated Weibull Turbulence Channels. <i>IEEE Access</i> , 2020, 8, 118612-118622.	4.2	5
40	Tight-focusing properties of radially polarized chirped circular Airy Gaussian beam. <i>Optics Communications</i> , 2020, 476, 126312.	2.1	10
41	Broadband Filter and Adjustable Extinction Ratio Modulator Based on Metal-Graphene Hybrid Metamaterials. <i>Nanomaterials</i> , 2020, 10, 1359.	4.1	17
42	High-Accuracy Recognition of Orbital Angular Momentum Modes Propagated in Atmospheric Turbulences Based on Deep Learning. <i>IEEE Access</i> , 2020, 8, 159542-159551.	4.2	21
43	Characteristics and mechanism of all-optical switching based on one-dimensional periodic two-segment-connected tetrahedral optical waveguide network. <i>Optics Communications</i> , 2020, 474, 126091.	2.1	5
44	A Thermal Tuning Meta-Duplex-Lens (MDL): Design and Characterization. <i>Nanomaterials</i> , 2020, 10, 1135.	4.1	7
45	Improve The Capacity Of Data Transmission In Orbital Angular Momentum Multiplexing By Adjusting Link Structure. <i>IEEE Photonics Journal</i> , 2020, 12, 1-11.	2.0	5
46	Goos-Hänchen and Imbert-Fedorov shifts of off-axis Airy vortex beams. <i>Optics Express</i> , 2020, 28, 28916.	3.4	16
47	Characteristics and mechanism of all-optical switching based on a one-dimensional two-connected periodic triangle optical waveguide network. <i>Applied Optics</i> , 2020, 59, 8182.	1.8	5
48	Propagation of the chirped-Airy-Gaussian-Hermite-Laguerre-Gaussian wave packets in free space. <i>Applied Physics B: Lasers and Optics</i> , 2019, 125, 1.	2.2	0
49	Dynamically Temperature-Voltage Controlled Multifunctional Device Based on VO <sub>2</sub> and Graphene Hybrid Metamaterials: Perfect Absorber and Highly Efficient Polarization Converter. <i>Nanomaterials</i> , 2019, 9, 1101.	4.1	44
50	Singular Characteristics of Optical Thue-Morse Multilayers Composed of PT-Symmetric Elements. <i>Annalen Der Physik</i> , 2019, 531, 1900275.	2.4	9
51	Performance Improvement for Mixed RF-FSO Communication System by Adopting Hybrid Subcarrier Intensity Modulation. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3724.	2.5	9
52	Reflectionless phenomenon in $PT$ -symmetric periodic structures of one-dimensional two-material optical waveguide networks. <i>Physical Review A</i> , 2019, 100, .	2.5	10
53	Dynamically Tunable Resonant Strength in Electromagnetically Induced Transparency (EIT) Analogue by Hybrid Metal-Graphene Metamaterials. <i>Nanomaterials</i> , 2019, 9, 171.	4.1	19
54	The Scattering Problem in $PT$ -Symmetric Periodic Structures of 1D Two-Material Waveguide Networks. <i>Annalen Der Physik</i> , 2019, 531, 1900120.	2.4	13

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55	Propagation of a radially polarized partially coherent rotating elliptical cosine-Gaussian beam with vortices in anisotropic turbulence. <i>Applied Physics B: Lasers and Optics</i> , 2019, 125, 1.	2.2	10
56	Nonparaxial propagation of the radially polarized Airy-Gaussian beams with different initial launch angles in uniaxial crystals. <i>Optics Communications</i> , 2019, 445, 147-154.	2.1	18
57	Performance of a QAM/FSO communication system employing spatial diversity in weak and saturation turbulence channels. <i>Journal of Modern Optics</i> , 2019, 66, 965-975.	1.3	14
58	Effects of the multi-order and off-axis vortex on quadratically chirped Airy beams in the right-handed and left-handed materials slabs. <i>Optics Communications</i> , 2019, 437, 160-167.	2.1	7
59	Transmission characteristics of one-dimensional periodic optical waveguide networks. <i>Physical Review A</i> , 2019, 99, .	2.5	5
60	Effects of Atmospheric Turbulence on OAM-POL-FDM Hybrid Multiplexing Communication System. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 5063.	2.5	15
61	Singular properties generated by finite periodic PT-symmetric optical waveguide network. <i>Optics Express</i> , 2019, 27, 1538.	3.4	10
62	Dynamics of breathers-like circular Pearcey Gaussian waves in a Kerr medium. <i>Optics Express</i> , 2019, 27, 17482.	3.4	22
63	Abruptly autofocused and rotated circular chirp Pearcey Gaussian vortex beams. <i>Optics Letters</i> , 2019, 44, 955.	3.3	59
64	Effects of the modulated vortex and second-order chirp on the propagation dynamics of ring Pearcey Gaussian beams. <i>Optics Letters</i> , 2019, 44, 4654.	3.3	40
65	A dynamically tunable plasmonic multi-functional device based on graphene nano-sheet pair arrays. <i>Optics Communications</i> , 2018, 415, 130-134.	2.1	6
66	Metalenses Based on Symmetric Slab Waveguide and c-TiO <sub>2</sub> : Efficient Polarization-Insensitive Focusing at Visible Wavelengths. <i>Nanomaterials</i> , 2018, 8, 699.	4.1	14
67	Focusing properties of circle Pearcey beams. <i>Optics Letters</i> , 2018, 43, 3626.	3.3	115
68	High-Efficiency, Near-Diffraction Limited, Dielectric Metasurface Lenses Based on Crystalline Titanium Dioxide at Visible Wavelengths. <i>Nanomaterials</i> , 2018, 8, 288.	4.1	53
69	Propagation of a radially polarized Pearcey beam in uniaxial crystals. <i>Laser Physics</i> , 2018, 28, 115001.	1.2	10
70	Spatiotemporal rapidly autofocused ring Pearcey Gaussian vortex wavepackets. <i>Journal of Optics (United Kingdom)</i> , 2018, 20, 075607.	2.2	10
71	Nonparaxial propagation of abruptly autofocusing circular Pearcey Gaussian beams. <i>Applied Optics</i> , 2018, 57, 8418.	1.8	27
72	Angular and Wavelength Simultaneous Selection in Transparent OPVs Based on Near-Infrared Bragg Reflector and Antireflection Coating. <i>IEEE Photonics Journal</i> , 2017, 9, 1-8.	2.0	3

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73	Analogue Electromagnetically Induced Transparency Based on Low-loss Metamaterial and its Application in Nanosensor and Slow-light Device. <i>Plasmonics</i> , 2017, 12, 641-647.	3.4	77
74	Analogue of electromagnetically induced absorption with double absorption windows in a plasmonic system. <i>PLoS ONE</i> , 2017, 12, e0179609.	2.5	6
75	A novel multi point cooperative multidirectional radio on fiber network system. , 2017, , .		1
76	Performance of multi-hop parallel free-space optical communication over gamma-“gamma fading channel with pointing errors. <i>Applied Optics</i> , 2016, 55, 9178.	2.1	9
77	A 40 GHz-100 GBPS wireless access network system based on all optical transformation and photoelectric direct detection. <i>Microwave and Optical Technology Letters</i> , 2016, 58, 2194-2202.	1.4	9
78	A novel CoMP-ROF communication network system based on photonic decouple frequency and optical delay interference. <i>Optical and Quantum Electronics</i> , 2016, 48, 1.	3.3	11
79	Multifunctional Sensors and Switch in MDM Waveguide With Symmetric Dual Side-Coupled Nanodisks. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 2893-2896.	2.5	8
80	Active plasmonic band-stop filters based on graphene metamaterial at THz wavelengths. <i>Optics Express</i> , 2016, 24, 14344.	3.4	63
81	Research on ytterbium-doped photonic crystal fiber amplifier for the femtosecond fiber laser. <i>Laser Physics</i> , 2016, 26, 015103.	1.2	2
82	Analogy of electromagnetically induced transparency in plasmonic nanodisk with a square ring resonator. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 232-237.	2.1	19
83	Enhanced plasmonic band-pass filter with symmetric dual side-coupled nanodisk resonators. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	24
84	Inverse solutions for a Risley prism scanner with iterative refinement by a forward solution. <i>Applied Optics</i> , 2015, 54, 9981.	2.1	43
85	High peak power continuum generation by high-order solitons at the mid-infrared wavelength in a photonic crystal fiber. <i>Laser Physics</i> , 2015, 25, 045401.	1.2	1
86	Performance of free-space optical communication system using differential phase-shift keying subcarrier-intensity modulated over the exponentiated Weibull channel. <i>Optical Engineering</i> , 2015, 54, 106109.	1.0	2
87	BER Analysis of a Hybrid Modulation Scheme Based on PPM and MSK Subcarrier Intensity Modulation. <i>IEEE Photonics Journal</i> , 2015, 7, 1-10.	2.0	24
88	New hybrid reverse differential pulse position width modulation scheme for wireless optical communication. <i>Optical Engineering</i> , 2014, 53, 056112.	1.0	7
89	Analysis of supermode and structural characteristics of octagonal multicore photonic crystal fiber with large effective mode area and low confinement loss. <i>Optical Engineering</i> , 2014, 53, 056114.	1.0	4
90	Propagation properties of electromagnetic multi-Gaussian Schell model beams propagating through atmospheric turbulence. <i>Journal of the Korean Physical Society</i> , 2014, 64, 826-831.	0.7	7

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91	Ultra-compact low-voltage and slow-light MZI electro-optic modulator based on monolithically integrated photonic crystal. Optics Communications, 2014, 315, 138-146.	2.1	1
92	Blue-shifted dispersive wave generation by the diffraction-arrested solitons for coherent anti-Stokes Raman scattering microscopy in a photonic crystal fiber. Optics Communications, 2014, 320, 73-76.	2.1	1
93	Properties of Non-Bridging Oxygen Hole Centers Defects in $\text{Yb}^{3+}/\text{Al}^{3+}$ Co-Doped Photonic Crystal Fiber by Using Powder Melting Technology. Journal of Lightwave Technology, 2013, 31, 2864-2868.	4.6	5
94	The affection of fiber nonlinearity in coherent optical communication system. , 2013, , .		1
95	Anti-Stokes signal conversion of femtosecond pulses at near-ultraviolet wavelength in photonic crystal fibre. Electronics Letters, 2013, 49, 1348-1350.	1.0	0
96	The study of fiber nonlinearity compensation effect based on mid-nonlinearity temporal inversion in CO-OFDM system. , 2013, , .		0
97	COHERENT ANTI-STOKES RAMAN SCATTERING MICROSCOPY BY DISPERSIVE WAVE GENERATIONS IN A POLARIZATION MAINTAINING PHOTONIC CRYSTAL FIBER. Progress in Electromagnetics Research, 2013, 141, 659-670.	4.4	5
98	Causes of the reconstructed cross appearing in lensless Fourier transform digital holography. Optik, 2010, 121, 1777-1780.	2.9	0
99	The approximate ABCD matrix for a parabolic lens of revolution and its application in calculating the coupling efficiency. Optik, 2008, 119, 666-670.	2.9	22
100	Designing a coupler for the intersatellite optical communication system. Optik, 2008, 119, 608-611.	2.9	1
101	Effects of the multi-order and off-axis vortex on the propagation of Pearcey Gaussian vortex beams with the astigmatic phase in a chiral medium. Waves in Random and Complex Media, 0, , 1-11.	2.7	2
102	Singular Optical Characteristics Generated by Fibonacci Multilayers Composed of PT-Symmetric Elements. SSRN Electronic Journal, 0, , .	0.4	0