

# Lei Zhang

## List of Publications by Year in descending order

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Version: 2024-02-01

78  
papers

6,396  
citations

116194

36  
h-index

134545

62  
g-index

79  
all docs

79  
docs citations

79  
times ranked

4064  
citing authors

#	ARTICLE	IF	CITATIONS
1	Accurate and broadband manipulations of harmonic amplitudes and phases to reach 256 QAM millimeter-wave wireless communications by time-domain digital coding metasurface. National Science Review, 2022, 9, nwab134.	4.6	46
2	An Angle-Insensitive 3-Bit Reconfigurable Intelligent Surface. IEEE Transactions on Antennas and Propagation, 2022, 70, 8798-8808.	3.1	55
3	Reconfigurable Intelligent Surfaces: Simplified-Architecture Transmitters From Theory to Implementations. Proceedings of the IEEE, 2022, 110, 1266-1289.	16.4	37
4	Space-Time-Coding Digital Metasurfaces for New-Architecture Wireless Communications. , 2022, , .		2
5	Anisotropic Metasurface Holography in 3-D Space With High Resolution and Efficiency. IEEE Transactions on Antennas and Propagation, 2021, 69, 302-316.	3.1	34
6	Joint Multi-Frequency Beam Shaping and Steering via Space-Time Coding Digital Metasurfaces. Advanced Functional Materials, 2021, 31, 2007620.	7.8	52
7	Programmable Controls to Scattering Properties of Radiation Array. Laser and Photonics Reviews, 2021, 15, 2000449.	4.4	93
8	Analog signal processing through space-time digital metasurfaces. Nanophotonics, 2021, 10, 1753-1764.	2.9	30
9	Non-Hermitian Skin Effect in a Non-Hermitian Electrical Circuit. Research, 2021, 2021, 5608038.	2.8	79
10	A wireless communication scheme based on space- and frequency-division multiplexing using digital metasurfaces. Nature Electronics, 2021, 4, 218-227.	13.1	224
11	Space-Time-Coding Digital Metasurfaces: Principles and Applications. Research, 2021, 2021, 9802673.	2.8	36
12	Optimal Multi-user Transmission based on a Single Intelligent Reflecting Surface. , 2021, , .		3
13	Edge state mimicking topological behavior in a one-dimensional electrical circuit. New Journal of Physics, 2021, 23, 103005.	1.2	3
14	Programmable Manipulations of Terahertz Beams by Transmissive Digital Coding Metasurfaces Based on Liquid Crystals. Advanced Optical Materials, 2021, 9, 2100932.	3.6	60
15	Power modulation of vortex beams using phase/amplitude adjustable transmissive coding metasurfaces. Journal Physics D: Applied Physics, 2021, 54, 035305.	1.3	16
16	Some Recent Advances in Space- Time-Coding Metasurfaces. , 2021, , .		0
17	Space-Time-Coding Digital Metasurfaces for Multiplexed Wireless Communications. , 2021, , .		0
18	Reflecting Metasurface Unit Cell Design with Multi-Bit Azimuthal Control. , 2021, , .		3

#	ARTICLE	IF	CITATIONS
19	Wideband and high-order microwave vortex-beam launcher based on spoof surface plasmon polaritons. Scientific Reports, 2021, 11, 23272.	1.6	5
20	Controls of transmitted electromagnetic waves for diverse functionalities using polarization-selective dual-band 2 bit coding metasurface. Journal of Optics (United Kingdom), 2020, 22, 015104.	1.0	10
21	Dynamically Realizing Arbitrary Multi-Bit Programmable Phases Using a 2-Bit Time-Domain Coding Metasurface. IEEE Transactions on Antennas and Propagation, 2020, 68, 2984-2992.	3.1	69
22	Information Metamaterial Systems. IScience, 2020, 23, 101403.	1.9	132
23	Octupole corner state in a three-dimensional topological circuit. Light: Science and Applications, 2020, 9, 145.	7.7	45
24	Harmonic information transitions of spatiotemporal metasurfaces. Light: Science and Applications, 2020, 9, 198.	7.7	27
25	Wearable Conformal Metasurfaces for Polarization Division Multiplexing. Advanced Optical Materials, 2020, 8, 2000068.	3.6	21
26	Frequency-multiplexed pure-phase microwave meta-holograms using bi-spectral 2-bit coding metasurfaces. Nanophotonics, 2020, 9, 703-714.	2.9	42
27	Gain- and Loss-Induced Topological Insulating Phase in a Non-Hermitian Electrical Circuit. Physical Review Applied, 2020, 13, .	1.5	77
28	Recent advances and perspectives on space-time coding digital metasurfaces. EPJ Applied Metamaterials, 2020, 7, 7.	0.8	11
29	Real-time terahertz meta-cryptography using polarization-multiplexed graphene-based computer-generated holograms. Nanophotonics, 2020, 9, 2861-2877.	2.9	36
30	Phase-controlled metasurface design via optimized genetic algorithm. Nanophotonics, 2020, 9, 3931-3939.	2.9	27
31	Recent Advances in Space-Time-Coding Digital Metasurfaces. , 2020, , .		0
32	Breaking Reciprocity with Space-Time-Coding Digital Metasurfaces. Advanced Materials, 2019, 31, e1904069.	11.1	208
33	Scattering diffusion control of electromagnetic and acoustic fields by multi-physics coding metamaterials. , 2019, , .		0
34	Intensity-Dependent Metasurface with Digitally Reconfigurable Distribution of Nonlinearity. Advanced Optical Materials, 2019, 7, 1900792.	3.6	33
35	Multichannel direct transmissions of near-field information. Light: Science and Applications, 2019, 8, 60.	7.7	83
36	Spin-Symmetry Breaking Through Metasurface Geometric Phases. Physical Review Applied, 2019, 12, .	1.5	26

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37	Digital Beam Scanning Technique Based on Space-Time-Modulated Coding Metasurface. , 2019, , .		2
38	Digital Metasurface with Phase Code and Reflectionâ€“Transmission Amplitude Code for Flexible Fullâ€“Space Electromagnetic Manipulations. Advanced Optical Materials, 2019, 7, 1801429.	3.6	104
39	Integration of Ultrathin Metasurfaces with a Lens for Efficient Polarization Division Multiplexing. Advanced Optical Materials, 2019, 7, 1900116.	3.6	18
40	Flexible controls of broadband electromagnetic wavefronts with a mechanically programmable metamaterial. Scientific Reports, 2019, 9, 1809.	1.6	15
41	Angle-Insensitive 2-Bit Programmable Coding Metasurface with Wide Incident Angles. , 2019, , .		12
42	Programmable Wireless Channel for Multi-User MIMO Transmission Using Meta-Surface. , 2019, , .		15
43	Space-Time-Coding Digital Metasurfaces. , 2019, , .		12
44	Full controls of OAM vortex beam and realization of retro and negative reflections at oblique incidence using dual-band 2-bit coding metasurface. Materials Research Express, 2019, 6, 125804.	0.8	18
45	Machineâ€“Learning Designs of Anisotropic Digital Coding Metasurfaces. Advanced Theory and Simulations, 2019, 2, 1800132.	1.3	100
46	Topologically Protected Edge State in Two-Dimensional Suâ€“Schriefferâ€“Heeger Circuit. Research, 2019, 2019, 1-8.	2.8	7
47	Topologically Protected Edge State in Two-Dimensional Suâ€“Schriefferâ€“Heeger Circuit. Research, 2019, 2019, 8609875.	2.8	55
48	Microwave Vortexâ€“Beam Emitter Based on Spoof Surface Plasmon Polaritons. Laser and Photonics Reviews, 2018, 12, 1600316.	4.4	49
49	Wavenumberâ€“Splitting Metasurfaces Achieve Multichannel Diffusive Invisibility. Advanced Optical Materials, 2018, 6, 1800010.	3.6	70
50	Generation of Broadband Multiple OAM Modes Using Pancharatnam-Berry Metasurface. , 2018, , .		2
51	Spaceâ€“Frequencyâ€“Domain Gradient Metamaterials. Advanced Optical Materials, 2018, 6, 1801086.	3.6	18
52	Space-time-coding digital metasurfaces. Nature Communications, 2018, 9, 4334.	5.8	728
53	Multifunctional Metasurfaces: Transmissionâ€“Reflectionâ€“Integrated Multifunctional Coding Metasurface for Fullâ€“Space Controls of Electromagnetic Waves (Adv. Funct. Mater. 33/2018). Advanced Functional Materials, 2018, 28, 1870232.	7.8	5
54	Multitasking Shared Aperture Enabled with Multiband Digital Coding Metasurface. Advanced Optical Materials, 2018, 6, 1800657.	3.6	76

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55	Single-Layer Dual-Band Anisotropic Coding Metasurface With Frequency- and Polarization-Dependent Properties. , 2018, , .		0
56	Transmission&Reflection&Integrated Multifunctional Coding Metasurface for Full&Space Controls of Electromagnetic Waves. Advanced Functional Materials, 2018, 28, 1802205.	7.8	221
57	Suboptimal Coding Metasurfaces for Terahertz Diffuse Scattering. Scientific Reports, 2018, 8, 11908.	1.6	29
58	Beam Forming of Leaky Waves at Fixed Frequency Using Binary Programmable Metasurface. IEEE Transactions on Antennas and Propagation, 2018, 66, 4942-4947.	3.1	33
59	A Reconfigurable Active Huygens' Metalens. Advanced Materials, 2017, 29, 1606422.	11.1	470
60	Realization of Low Scattering for a High-Gain Fabry&Perot Antenna Using Coding Metasurface. IEEE Transactions on Antennas and Propagation, 2017, 65, 3374-3383.	3.1	141
61	Shaping electromagnetic waves using software-automatically-designed metasurfaces. Scientific Reports, 2017, 7, 3588.	1.6	32
62	Controlling Energy Radiations of Electromagnetic Waves via Frequency Coding Metamaterials. Advanced Science, 2017, 4, 1700098.	5.6	72
63	Information metamaterials and metasurfaces. Journal of Materials Chemistry C, 2017, 5, 3644-3668.	2.7	297
64	Spin-Controlled Multiple Pencil Beams and Vortex Beams with Different Polarizations Generated by Pancharatnam-Berry Coding Metasurfaces. ACS Applied Materials & Interfaces, 2017, 9, 36447-36455.	4.0	205
65	Horn Antenna With Reconfigurable Beam-Refraction and Polarization Based on Anisotropic Huygens Metasurface. IEEE Transactions on Antennas and Propagation, 2017, 65, 4427-4434.	3.1	59
66	A Low-RCS and high-gain partially reflecting surface antenna based on coding metasurface. , 2017, , .		4
67	Full-State Controls of Terahertz Waves Using Tensor Coding Metasurfaces. ACS Applied Materials & Interfaces, 2017, 9, 21503-21514.	4.0	66
68	äâ½â...%â½ 2017â½ç½10â½ç½1æœÿ ç,®â½½. Chinese Optics, 2017, 10, 1-2.	0.2	2
69	Visible&Frequency Metasurface for Structuring and Spatially Multiplexing Optical Vortices. Advanced Materials, 2016, 28, 2533-2539.	11.1	387
70	Frequency&Dependent Dual&Functional Coding Metasurfaces at Terahertz Frequencies. Advanced Optical Materials, 2016, 4, 1965-1973.	3.6	125
71	Anomalous Refraction and Nondiffractive Bessel-Beam Generation of Terahertz Waves through Transmission-Type Coding Metasurfaces. ACS Photonics, 2016, 3, 1968-1977.	3.2	175
72	Metasurfaces: Convolution Operations on Coding Metasurface to Reach Flexible and Continuous Controls of Terahertz Beams (Adv. Sci. 10/2016). Advanced Science, 2016, 3, .	5.6	8

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73	Convolution Operations on Coding Metasurface to Reach Flexible and Continuous Controls of Terahertz Beams. <i>Advanced Science</i> , 2016, 3, 1600156.	5.6	343
74	Manipulations of Dual Beams with Dual Polarizations by Full-Tensor Metasurfaces. <i>Advanced Optical Materials</i> , 2016, 4, 1567-1572.	3.6	44
75	Advances in Full Control of Electromagnetic Waves with Metasurfaces. <i>Advanced Optical Materials</i> , 2016, 4, 818-833.	3.6	306
76	Ultrathin Pancharatnam-Berry Metasurface with Maximal Cross-Polarization Efficiency. <i>Advanced Materials</i> , 2015, 27, 1195-1200.	11.1	431
77	Programmable Manipulations of Terahertz Beams by Graphene-Based Metasurface With Both Amplitude and Phase Modulations. <i>Frontiers in Materials</i> , 0, 9, .	1.2	5
78	Flexible Beam Manipulations by Reconfigurable Intelligent Surface With Independent Control of Amplitude and Phase. <i>Frontiers in Materials</i> , 0, 9, .	1.2	10