

Lei Zhang

List of Publications by Year in descending order

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78
papers

6,396
citations

101543

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62
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79
all docs

79
docs citations

79
times ranked

3527
citing authors

#	ARTICLE	IF	CITATIONS
1	Space-time-coding digital metasurfaces. Nature Communications, 2018, 9, 4334.	12.8	728
2	A Reconfigurable Active Huygens' Metasurfaces. Advanced Materials, 2017, 29, 1606422.	21.0	470
3	Ultrathin Pancharatnam-Berry Metasurface with Maximal Cross-Polarization Efficiency. Advanced Materials, 2015, 27, 1195-1200.	21.0	431
4	Visible-Frequency Metasurface for Structuring and Spatially Multiplexing Optical Vortices. Advanced Materials, 2016, 28, 2533-2539.	21.0	387
5	Convolution Operations on Coding Metasurface to Reach Flexible and Continuous Controls of Terahertz Beams. Advanced Science, 2016, 3, 1600156.	11.2	343
6	Advances in Full Control of Electromagnetic Waves with Metasurfaces. Advanced Optical Materials, 2016, 4, 818-833.	7.3	306
7	Information metamaterials and metasurfaces. Journal of Materials Chemistry C, 2017, 5, 3644-3668.	5.5	297
8	A wireless communication scheme based on space- and frequency-division multiplexing using digital metasurfaces. Nature Electronics, 2021, 4, 218-227.	26.0	224
9	Transmission-Reflection-Integrated Multifunctional Coding Metasurface for Full-Space Controls of Electromagnetic Waves. Advanced Functional Materials, 2018, 28, 1802205.	14.9	221
10	Breaking Reciprocity with Space-Time-Coding Digital Metasurfaces. Advanced Materials, 2019, 31, e1904069.	21.0	208
11	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.	8.0	205
12	Anomalous Refraction and Nondiffractive Bessel-Beam Generation of Terahertz Waves through Transmission-Type Coding Metasurfaces. ACS Photonics, 2016, 3, 1968-1977.	6.6	175
13	Realization of Low Scattering for a High-Gain Fabry-Perot Antenna Using Coding Metasurface. IEEE Transactions on Antennas and Propagation, 2017, 65, 3374-3383.	5.1	141
14	Information Metamaterial Systems. IScience, 2020, 23, 101403.	4.1	132
15	Frequency-Dependent Dual-Functional Coding Metasurfaces at Terahertz Frequencies. Advanced Optical Materials, 2016, 4, 1965-1973.	7.3	125
16	Digital Metasurface with Phase Code and Reflection-Transmission Amplitude Code for Flexible Full-Space Electromagnetic Manipulations. Advanced Optical Materials, 2019, 7, 1801429.	7.3	104
17	Machine-Learning Designs of Anisotropic Digital Coding Metasurfaces. Advanced Theory and Simulations, 2019, 2, 1800132.	2.8	100
18	Programmable Controls to Scattering Properties of Radiation Array. Laser and Photonics Reviews, 2021, 15, 2000449.	8.7	93

#	ARTICLE	IF	CITATIONS
19	Multichannel direct transmissions of near-field information. <i>Light: Science and Applications</i> , 2019, 8, 60.	16.6	83
20	Non-Hermitian Skin Effect in a Non-Hermitian Electrical Circuit. <i>Research</i> , 2021, 2021, 5608038.	5.7	79
21	Gain- and Loss-Induced Topological Insulating Phase in a Non-Hermitian Electrical Circuit. <i>Physical Review Applied</i> , 2020, 13, .	3.8	77
22	Multitasking Shared Aperture Enabled with Multiband Digital Coding Metasurface. <i>Advanced Optical Materials</i> , 2018, 6, 1800657.	7.3	76
23	Controlling Energy Radiations of Electromagnetic Waves via Frequency Coding Metamaterials. <i>Advanced Science</i> , 2017, 4, 1700098.	11.2	72
24	Wavenumberâ€‘Splitting Metasurfaces Achieve Multichannel Diffusive Invisibility. <i>Advanced Optical Materials</i> , 2018, 6, 1800010.	7.3	70
25	Dynamically Realizing Arbitrary Multi-Bit Programmable Phases Using a 2-Bit Time-Domain Coding Metasurface. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 2984-2992.	5.1	69
26	Full-State Controls of Terahertz Waves Using Tensor Coding Metasurfaces. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 21503-21514.	8.0	66
27	Programmable Manipulations of Terahertz Beams by Transmissive Digital Coding Metasurfaces Based on Liquid Crystals. <i>Advanced Optical Materials</i> , 2021, 9, 2100932.	7.3	60
28	Horn Antenna With Reconfigurable Beam-Refraction and Polarization Based on Anisotropic Huygens Metasurface. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 4427-4434.	5.1	59
29	Topologically Protected Edge State in Two-Dimensional Suâ€‘Schriefferâ€‘Heeger Circuit. <i>Research</i> , 2019, 2019, 8609875.	5.7	55
30	An Angle-Insensitive 3-Bit Reconfigurable Intelligent Surface. <i>IEEE Transactions on Antennas and Propagation</i> , 2022, 70, 8798-8808.	5.1	55
31	Joint Multiâ€‘Frequency Beam Shaping and Steering via Spaceâ€‘Timeâ€‘Coding Digital Metasurfaces. <i>Advanced Functional Materials</i> , 2021, 31, 2007620.	14.9	52
32	Microwave Vortexâ€‘Beam Emitter Based on Spoof Surface Plasmon Polaritons. <i>Laser and Photonics Reviews</i> , 2018, 12, 1600316.	8.7	49
33	Accurate and broadband manipulations of harmonic amplitudes and phases to reach 256 QAM millimeter-wave wireless communications by time-domain digital coding metasurface. <i>National Science Review</i> , 2022, 9, nwab134.	9.5	46
34	Octupole corner state in a three-dimensional topological circuit. <i>Light: Science and Applications</i> , 2020, 9, 145.	16.6	45
35	Manipulations of Dual Beams with Dual Polarizations by Fullâ€‘Tensor Metasurfaces. <i>Advanced Optical Materials</i> , 2016, 4, 1567-1572.	7.3	44
36	Frequency-multiplexed pure-phase microwave meta-holograms using bi-spectral 2-bit coding metasurfaces. <i>Nanophotonics</i> , 2020, 9, 703-714.	6.0	42

#	ARTICLE	IF	CITATIONS
37	Reconfigurable Intelligent Surfaces: Simplified-Architecture Transmittersâ€”From Theory to Implementations. Proceedings of the IEEE, 2022, 110, 1266-1289.	21.3	37
38	Space-Time-Coding Digital Metasurfaces: Principles and Applications. Research, 2021, 2021, 9802673.	5.7	36
39	Real-time terahertz meta-cryptography using polarization-multiplexed graphene-based computer-generated holograms. Nanophotonics, 2020, 9, 2861-2877.	6.0	36
40	Anisotropic Metasurface Holography in 3-D Space With High Resolution and Efficiency. IEEE Transactions on Antennas and Propagation, 2021, 69, 302-316.	5.1	34
41	Beam Forming of Leaky Waves at Fixed Frequency Using Binary Programmable Metasurface. IEEE Transactions on Antennas and Propagation, 2018, 66, 4942-4947.	5.1	33
42	Intensityâ€”Dependent Metasurface with Digitally Reconfigurable Distribution of Nonlinearity. Advanced Optical Materials, 2019, 7, 1900792.	7.3	33
43	Shaping electromagnetic waves using software-automatically-designed metasurfaces. Scientific Reports, 2017, 7, 3588.	3.3	32
44	Analog signal processing through space-time digital metasurfaces. Nanophotonics, 2021, 10, 1753-1764.	6.0	30
45	Suboptimal Coding Metasurfaces for Terahertz Diffuse Scattering. Scientific Reports, 2018, 8, 11908.	3.3	29
46	Harmonic information transitions of spatiotemporal metasurfaces. Light: Science and Applications, 2020, 9, 198.	16.6	27
47	Phase-controlled metasurface design via optimized genetic algorithm. Nanophotonics, 2020, 9, 3931-3939.	6.0	27
48	Spin-Symmetry Breaking Through Metasurface Geometric Phases. Physical Review Applied, 2019, 12, .	3.8	26
49	Wearable Conformal Metasurfaces for Polarization Division Multiplexing. Advanced Optical Materials, 2020, 8, 2000068.	7.3	21
50	Spaceâ€”Frequencyâ€”Domain Gradient Metamaterials. Advanced Optical Materials, 2018, 6, 1801086.	7.3	18
51	Integration of Ultrathin Metasurfaces with a Lens for Efficient Polarization Division Multiplexing. Advanced Optical Materials, 2019, 7, 1900116.	7.3	18
52	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.	1.6	18
53	Power modulation of vortex beams using phase/amplitude adjustable transmissive coding metasurfaces. Journal Physics D: Applied Physics, 2021, 54, 035305.	2.8	16
54	Flexible controls of broadband electromagnetic wavefronts with a mechanically programmable metamaterial. Scientific Reports, 2019, 9, 1809.	3.3	15

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55	Programmable Wireless Channel for Multi-User MIMO Transmission Using Meta-Surface. , 2019, , .		15
56	Angle-Insensitive 2-Bit Programmable Coding Metasurface with Wide Incident Angles. , 2019, , .		12
57	Space-Time-Coding Digital Metasurfaces. , 2019, , .		12
58	Recent advances and perspectives on space-time coding digital metasurfaces. EPJ Applied Metamaterials, 2020, 7, 7.	1.5	11
59	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.	2.2	10
60	Flexible Beam Manipulations by Reconfigurable Intelligent Surface With Independent Control of Amplitude and Phase. Frontiers in Materials, 0, 9, .	2.4	10
61	Metasurfaces: Convolution Operations on Coding Metasurface to Reach Flexible and Continuous Controls of Terahertz Beams (Adv. Sci. 10/2016). Advanced Science, 2016, 3, .	11.2	8
62	Topologically Protected Edge State in Two-Dimensional Suâ€“Schriefferâ€“Heeger Circuit. Research, 2019, 2019, 1-8.	5.7	7
63	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.	14.9	5
64	Wideband and high-order microwave vortex-beam launcher based on spoof surface plasmon polaritons. Scientific Reports, 2021, 11, 23272.	3.3	5
65	Programmable Manipulations of Terahertz Beams by Graphene-Based Metasurface With Both Amplitude and Phase Modulations. Frontiers in Materials, 0, 9, .	2.4	5
66	A Low-RCS and high-gain partially reflecting surface antenna based on coding metasurface. , 2017, , .		4
67	Optimal Multi-user Transmission based on a Single Intelligent Reflecting Surface. , 2021, , .		3
68	Edge state mimicking topological behavior in a one-dimensional electrical circuit. New Journal of Physics, 2021, 23, 103005.	2.9	3
69	Reflecting Metasurface Unit Cell Design with Multi-Bit Azimuthal Control. , 2021, , .		3
70	Generation of Broadband Multiple OAM Modes Using Pancharatnam-Berry Metasurface. , 2018, , .		2
71	Digital Beam Scanning Technique Based on Space-Time-Modulated Coding Metasurface. , 2019, , .		2
72	ä¸¸1/2â€¦â€¦2017â€¦10â€¦1æœŸç®½. Chinese Optics, 2017, 10, 1-2.	0.6	2

#	ARTICLE	IF	CITATIONS
73	Space-Time-Coding Digital Metasurfaces for New-Architecture Wireless Communications. , 2022, , .		2
74	Single-Layer Dual-Band Anisotropic Coding Metasurface With Frequency- and Polarization-Dependent Properties. , 2018, , .		0
75	Scattering diffusion control of electromagnetic and acoustic fields by multi-physics coding metamaterials. , 2019, , .		0
76	Some Recent Advances in Space- Time-Coding Metasurfaces. , 2021, , .		0
77	Space-Time-Coding Digital Metasurfaces for Multiplexed Wireless Communications. , 2021, , .		0
78	Recent Advances in Space-Time-Coding Digital Metasurfaces. , 2020, , .		0