Weixiang Jiang

List of Publications by Year
in descending order

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109 papers	6,067 citations	76196 40 h-index	69108 77 g-index
109 all docs	109 docs citations	109 times ranked	3432 citing authors

#	Article	IF	Citations
1	Polarization-independent wide-angle triple-band metamaterial absorber. Optics Express, 2011, 19, 9401.	1.7	643
2	Broadband and high-efficiency conversion from guided waves to spoof surface plasmon polaritons. Laser and Photonics Reviews, 2014, 8, 146-151.	4.4	553
3	Anisotropic coding metamaterials and their powerful manipulation of differently polarized terahertz waves. Light: Science and Applications, 2016, 5, e16076-e16076.	7.7	422
4	A tunable metamaterial absorber using varactor diodes. New Journal of Physics, 2013, 15, 043049.	1.2	260
5	An optically driven digital metasurface for programming electromagnetic functions. Nature Electronics, 2020, 3, 165-171.	13.1	203
6	Ultrathin dual-band surface plasmonic polariton waveguide and frequency splitter in microwave frequencies. Applied Physics Letters, 2013, 102, .	1.5	166
7	Three-dimensional broadband and high-directivity lens antenna made of metamaterials. Journal of Applied Physics, 2011, 110, .	1.1	159
8	Design of arbitrarily shaped concentrators based on conformally optical transformation of nonuniform rational B-spline surfaces. Applied Physics Letters, 2008, 92, .	1.5	154
9	Concept, Theory, Design, and Applications of Spoof Surface Plasmon Polaritons at Microwave Frequencies. Advanced Optical Materials, 2019, 7, 1800421.	3.6	148
10	Lightâ€Controllable Digital Coding Metasurfaces. Advanced Science, 2018, 5, 1801028.	5.6	136
11	A broadband transformation-optics metasurface lens. Applied Physics Letters, 2014, 104, 151601.	1.5	132
12	Information Metamaterial Systems. IScience, 2020, 23, 101403.	1.9	132
13	Cylindrical-to-plane-wave conversion via embedded optical transformation. Applied Physics Letters, 2008, 92, .	1.5	116
14	Invisibility cloak without singularity. Applied Physics Letters, 2008, 93, 194102.	1.5	116
15	Spatial Power Combination for Omnidirectional Radiation via Anisotropic Metamaterials. Physical Review Letters, 2012, 108, 213903.	2.9	114
16	Polarizationâ€Controlled Dualâ€Programmable Metasurfaces. Advanced Science, 2020, 7, 1903382.	5.6	112
17	Analytical design of conformally invisible cloaks for arbitrarily shaped objects. Physical Review E, 2008, 77, 066607.	0.8	108
18	Creation of Ghost Illusions Using Wave Dynamics in Metamaterials. Advanced Functional Materials, 2013, 23, 4028-4034.	7.8	106

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19	Experiments on high-performance beam-scanning antennas made of gradient-index metamaterials. Applied Physics Letters, 2009, 95, .	1.5	98
20	Compact-sized and broadband carpet cloak and free-space cloak. Optics Express, 2009, 17, 19947.	1.7	97
21	Radar illusion via metamaterials. Physical Review E, 2011, 83, 026601.	0.8	94
22	Illusion media: Generating virtual objects using realizable metamaterials. Applied Physics Letters, 2010, 96, .	1.5	91
23	Generation of spatial Bessel beams using holographic metasurface. Optics Express, 2015, 23, 7593.	1.7	89
24	Shrinking an arbitrary object as one desires using metamaterials. Applied Physics Letters, 2011, 98, .	1.5	88
25	Broadband Allâ€Dielectric Magnifying Lens for Farâ€Field Highâ€Resolution Imaging. Advanced Materials, 2013, 25, 6963-6968.	11.1	85
26	Arbitrary bending of electromagnetic waves using realizable inhomogeneous and anisotropic materials. Physical Review E, 2008, 78, 066607.	0.8	74
27	Layered high-gain lens antennas via discrete optical transformation. Applied Physics Letters, 2008, 93, .	1.5	65
28	Pattern-Reconfigurable Planar Array Antenna Characterized by Digital Coding Method. IEEE Transactions on Antennas and Propagation, 2020, 68, 1170-1175.	3.1	60
29	Compact High-Performance Lens Antenna Based on Impedance-Matching Gradient-Index Metamaterials. IEEE Transactions on Antennas and Propagation, 2019, 67, 1323-1328.	3.1	59
30	Radiation of planar electromagnetic waves by a line source in anisotropic metamaterials. Journal Physics D: Applied Physics, 2010, 43, 335406.	1.3	58
31	Multi-beam generations at pre-designed directions based on anisotropic zero-index metamaterials. Applied Physics Letters, 2011, 99, 131913.	1.5	54
32	An Ultrathin Cross-Polarization Converter With Near Unity Efficiency for Transmitted Waves. IEEE Transactions on Antennas and Propagation, 2018, 66, 4370-4373.	3.1	53
33	Anisotropic metamaterial devices. Materials Today, 2009, 12, 26-33.	8.3	52
34	Smart Doppler Cloak Operating in Broad Band and Full Polarizations. Advanced Materials, 2021, 33, e2007966.	11.1	52
35	A metasurface-based light-to-microwave transmitter for hybrid wireless communications. Light: Science and Applications, 2022, 11, 126.	7.7	47
36	Design of multibeam scanning antennas with high gains and low sidelobes using gradient-index metamaterials. Journal of Applied Physics, 2010, 107, .	1.1	46

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37	Enhancement of Current Density by dc Electric Concentrator. Scientific Reports, 2012, 2, 956.	1.6	43
38	INVESTIGATIONS OF THE ELECTROMAGNETIC PROPERTIES OF THREE-DIMENSIONAL ARBITRARILY-SHAPED CLOAKS. Progress in Electromagnetics Research, 2009, 94, 105-117.	1.6	41
39	Virtual conversion from metal object to dielectric object using metamaterials. Optics Express, 2010, 18, 11276.	1.7	40
40	Dual-band spoof surface plasmon polaritons based on composite-periodic gratings. Journal Physics D: Applied Physics, 2012, 45, 505104.	1.3	40
41	A Dual-Band Electronic-Scanning Leaky-Wave Antenna Based on a Corrugated Microstrip Line. IEEE Transactions on Antennas and Propagation, 2019, 67, 3433-3438.	3.1	40
42	Loss-Assisted Metasurface at an Exceptional Point. ACS Photonics, 2020, 7, 3321-3327.	3.2	39
43	Independent control of differently-polarized waves using anisotropic gradient-index metamaterials. Scientific Reports, 2014, 4, 6337.	1.6	37
44	High-Gain and High-Efficiency GRIN Metamaterial Lens Antenna With Uniform Amplitude and Phase Distributions on Aperture. IEEE Transactions on Antennas and Propagation, 2018, 66, 16-22.	3.1	36
45	Frequency-dependent transmission-type digital coding metasurface controlled by light intensity. Applied Physics Letters, 2018, 113, .	1.5	36
46	Moving targets virtually via composite optical transformation. Optics Express, 2010, 18, 5161.	1.7	35
47	Angle-Dependent Phase Shifter Model for Reconfigurable Intelligent Surfaces: Does the Angle-Reciprocity Hold?. IEEE Communications Letters, 2020, 24, 2060-2064.	2.5	35
48	Millimeterâ€Wave Digital Coding Metasurfaces Based on Nematic Liquid Crystals. Advanced Theory and Simulations, 2019, 2, 1900141.	1.3	31
49	Shaping 3D Path of Electromagnetic Waves Using Gradientâ€Refractiveâ€Index Metamaterials. Advanced Science, 2016, 3, 1600022.	5.6	26
50	An Integrated Coding-Metasurface-Based Array Antenna. IEEE Transactions on Antennas and Propagation, 2020, 68, 891-899.	3.1	26
51	Experimental realization of bending waveguide using anisotropic zero-index materials. Applied Physics Letters, 2012, 101, .	1.5	25
52	Impedanceâ€Matching Wavefrontâ€Transformation Lens Based on Acoustic Metamaterials. Advanced Materials Technologies, 2018, 3, 1800064.	3.0	23
53	Design of Transparent Structure Using Matamaterial. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 30, 633-641.	1.2	22
54	An Optically Controllable Transformationâ€dc Illusion Device. Advanced Materials, 2015, 27, 4628-4633.	11.1	22

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55	Phase and Polarization Modulations Using Radiationâ€Type Metasurfaces. Advanced Optical Materials, 2021, 9, 2100159.	3.6	21
56	An Ultrawideband and High-Gain Antenna Based on 3-D Impedance-Matching Metamaterial Lens. IEEE Transactions on Antennas and Propagation, 2021, 69, 3084-3093.	3.1	21
57	Controlling Radiation Beams by Low-Profile Planar Antenna Arrays with Coding Elements. ACS Omega, 2018, 3, 10601-10611.	1.6	20
58	Accurate Analysis of Finite-Volume Lumped Elements in Metamaterial Absorber Design. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 1966-1975.	2.9	19
59	Spaceâ€Frequencyâ€Domain Gradient Metamaterials. Advanced Optical Materials, 2018, 6, 1801086.	3.6	18
60	Radiationâ€Type Metasurfaces for Advanced Electromagnetic Manipulation. Advanced Functional Materials, 2021, 31, 2100569.	7.8	18
61	A novel EM concentrator with open-concentrator region based on multi-folded transformation optics. Scientific Reports, 2018, 8, 9641.	1.6	16
62	Structured Semiconductor Interfaces: Active Functionality on Light Manipulation. Proceedings of the IEEE, 2020, 108, 772-794.	16.4	16
63	Programmable Controlling of Multiple Spatial Harmonics via a Nonlinearly Phased Grating Metasurface. Advanced Functional Materials, 2022, 32, .	7.8	16
64	Acoustic Magnifying Lens for Farâ€Field High Resolution Imaging Based on Transformation Acoustics. Advanced Materials Technologies, 2017, 2, 1700089.	3.0	15
65	X-band high directivity lens antenna realized by gradient index metamaterials. , 2009, , .		14
66	Tunable metamaterials using a topological insulator at near-infrared regime. RSC Advances, 2013, 3, 19474.	1.7	14
67	Experimental demonstration of compact spoof localized surface plasmons. Optics Letters, 2016, 41, 5418.	1.7	14
68	Chirality Enhancement Using Fabryâ€“PÃ©rot-Like Cavity. Research, 2020, 2020, 7873581.	2.8	13
69	Light-controllable time-domain digital coding metasurfaces. Advanced Photonics, 2022, 4, .	6.2	13
70	Acoustic tunable metamaterials based on anisotropic unit cells. Applied Physics Letters, 2019, 115, 231902.	1.5	12
71	Spatial power combination within fan-shaped region using anisotropic zero-index metamaterials. Applied Physics Letters, 2012, 101, 141902.	1.5	11
72	Switchable zero-index metamaterials by loading positive-intrinsic-negative diodes. Applied Physics Letters, 2014, 104, 053504.	1.5	11

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73	A Millimeter-Wave System of Antenna Array and Metamaterial Lens. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 370-373.	2.4	11
74	Concentric designer plasmon hybridization in deep subwavelength metamaterial resonator. Applied Physics Letters, 2019, 115, .	1.5	11
75	Realization of a broadband electromagnetic gateway at microwave frequencies. Applied Physics Letters, 2015, 107, .	1.5	10
76	Self-adaptive metasurface platform based on computer vision. Optics Letters, 2021, 46, 3520.	1.7	10
77	Dualâ€band reconfigurable metasurfaceâ€assisted Fabryâ€“PÃ©rot antenna with highâ€gain radiation and low scattering. IET Microwaves, Antennas and Propagation, 2020, 14, 1933-1942.	0.7	10
78	TRANSFORMATION OPTICS AND APPLICATIONS IN MICROWAVE FREQUENCIES (Invited Paper). Progress in Electromagnetics Research, 2014, 149, 251-273.	1.6	9
79	Generation of high-order orbital angular momentum beams and split beams simultaneously by employing anisotropic coding metasurfaces. Journal of Optics (United Kingdom), 2019, 21, 065103.	1.0	9
80	Unconditionally Stable CN-PML Algorithm for Frequency-Dispersive Left-Handed Materials. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 2006-2009.	2.4	8
81	Programmable Metasurfaces: Polarizationâ€Controlled Dualâ€Programmable Metasurfaces (Adv. Sci.) Tj ETQq1 1 0.784314 rgBT /Ove	5.6	7
82	Several Types of Antennas Composed of Microwave Metamaterials. IEICE Transactions on Communications, 2011, E94-B, 1142-1152.	0.4	6
83	Localized transformation optics devices. Applied Physics Letters, 2013, 103, 214104.	1.5	6
84	A metasurface for RCS reduction. , 2014, , .		6
85	A multidirectional cloak for visible light. Journal Physics D: Applied Physics, 2018, 51, 155106.	1.3	5
86	Tunable Asymmetric Transmissions via Anisotropic Acoustic Metamaterials. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100163.	1.2	5
87	Design and optimization of high-efficiency meta-devices based on the equivalent circuit model and theory of electromagnetic power energy storage. Journal Physics D: Applied Physics, 2022, 55, 195303.	1.3	5
88	Digital Metasurfaces: Lightâ€Controllable Digital Coding Metasurfaces (Adv. Sci. 11/2018). Advanced Science, 2018, 5, 1870068.	5.6	4
89	0.02-wavelengths-thick transmission-type designer wave plate with high efficiency. Journal Physics D: Applied Physics, 2019, 52, 375105.	1.3	4
90	An Ultrawideband and Dual-Beam Scanning Array Antenna Charactered by Coding Method. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 2211-2215.	2.4	4

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91	Tunable triple-band millimeter-wave absorbing metasurface based on nematic liquid crystal. AIP Advances, 2022, 12, .	0.6	4
92	Loss compensation in external cloaks using a thin layer of gain media. Journal of Applied Physics, 2010, 108, 053503.	1.1	3
93	Design of low-profile array antenna working at 110 GHz based on digital coding characterization. Science China Information Sciences, 2021, 64, 1.	2.7	3
94	Broadband Coding Metasurface for Radar Cross Section Reduction. , 2018, , .		2
95	Transformation Electromagnetics for Microwave Antennas and Radar Illusion. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 1792-1795.	2.4	1
96	A switchable zero index metamaterial. , 2014, , .		1
97	Multiband Fractal Metasurface with Linear to Linear and Linear to Circular Polarization Conversion. , 2019, , .		1
98	Dual-polarization metasurface for microwave energy harvesting. , 2019, , .		1
99	Miniaturized Cavity Resonator Supporting Both Electromagnetic Resonances and Magneto-Inductive Resonances. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 108-111.	2.4	0
100	Transmitting information of an object behind the obstacle to infinity. Scientific Reports, 2015, 5, 13140.	1.6	0
101	Compact lens antenna with high-directivity based on zero-index metamaterials. , 2015, , .		0
102	Acoustic Metamaterials: Acoustic Magnifying Lens for Farâ€Field High Resolution Imaging Based on Transformation Acoustics (Adv. Mater. Technol. 9/2017). Advanced Materials Technologies, 2017, 2, .	3.0	0
103	Low-profile coding microstrip antenna arrays. , 2018, , .		0
104	Digital Coding: Millimeterâ€Wave Digital Coding Metasurfaces Based on Nematic Liquid Crystals (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10	1.3	0
105	A high-efficiency and ultrathin transmission-type circular polarization converter based on surface structure. EPJ Applied Metamaterials, 2021, 8, 4.	0.8	0
106	Programmable Metasurface Cloaking for Arbitrarily External Object. , 2020, , .		0
107	Dual-band Reconfigurable Fabry-PÃ©rot Cavity Antenna Based on Metasurface. , 2021, , .		0
108	A1-bit Ultra-wideband Frequency-scanning Planar Array Antenna. , 2021, , .		0

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109	Decoupling Control of Orthogonally-Polarized Waves Via Dual-Programmable Metasurfaces. , 2021, , .		0