Huanyang Chen

List of Publications by Year in Descending Order

172 papers	7,330 citations	37 h-index	83 g-index
193 ext. papers	8,516 ext. citations	5.1 avg, IF	6.4 L-index

#	Paper	IF	Citations
172	Broadband High-Efficiency Ultrathin Metasurfaces With Simultaneous Independent Control of Transmission and Reflection Amplitudes and Phases. *IEEE Transactions on Microwave Theory and Techniques*, **2022**, 70, 254-263	4.1	9
171	Solid Immersion Maxwell's Fish-Eye Lens Without Drain. *Physical Review Applied*, **2022**, 17,	4.3	1
170	Tailoring Topological Transitions of Anisotropic Polaritons by Interface Engineering in Biaxial Crystals.. *Nano Letters*, **2022**,	11.5	6
169	Acoustic super-resolution imaging based on solid immersion 3D Maxwell's fish-eye lens. *Applied Physics Letters*, **2022**, 120, 192202	3.4	
168	Ideal type-II Weyl points in twisted one-dimensional dielectric photonic crystals. *Optics Express*, **2021**, 29, 40606-40616	3.3	1
167	Total transmission from deep learning designs. *Journal of Electronic Science and Technology*, **2021**, 20, 100146	2.6	0
166	Transformation Metamaterials. *Advanced Materials*, **2021**, e2005489	24	1
165	Ultra-compact reconfigurable device for mode conversion and dual-mode DPSK demodulation via inverse design. *Optics Express*, **2021**, 29, 17718-17725	3.3	2
164	Invisible Gateway by Superscattering Effect of Metamaterials. *Physical Review Letters*, **2021**, 126, 227403	7.4	2
163	Highly Efficient Gradient Solid Immersion Lens with Large Numerical Aperture for Broadband Achromatic Deep Subwavelength Focusing and Magnified Far Field. *Advanced Optical Materials*, **2021**, 9, 2100509	8.1	1
162	Mimicking the gravitational effect with gradient index lenses in geometrical optics. *Photonics Research*, **2021**, 9, 1197	6	2
161	Efficient Mode Converter and Orbital-Angular-Momentum Generator via Gradient-Index Metamaterials. *Physical Review Applied*, **2021**, 15,	4.3	1
160	The geometric optical characteristics of Morse lens and its inside-out version. *Journal of Optics (United Kingdom)*, **2021**, 23, 025603	1.7	
159	Conformally Mapped Mikaelian Lens for Broadband Achromatic High Resolution Focusing. *Laser and Photonics Reviews*, **2021**, 15, 2000564	8.3	3
158	Enhancing ultra-wideband THz fingerprint sensing of unpatterned 2D carbon-based nanomaterials. *Carbon*, **2021**, 179, 666-676	10.4	8
157	Surface Plasmonic Sensors: Sensing Mechanism and Recent Applications. *Sensors*, **2021**, 21,	3.8	11
156	Exact transformation optics by using electrostatics. *Science Bulletin*, **2021**, 67, 246-246	10.6	0

155	Conformal Landscape of a Two-Dimensional Gradient Refractive-Index Profile for Geometrical Optics. *Physical Review Applied*, **2020**, 13,	4.3	5
154	Orbital corner states on breathing kagome lattices. *Physical Review B*, **2020**, 101,	3.3	1
153	Three-Dimensional Broadband Acoustic Waveguide Cloak. *Chinese Physics Letters*, **2020**, 37, 054302	1.8	2
152	Flat Lenses Based on 2D Perovskite Nanosheets. *Advanced Materials*, **2020**, 32, e2001388	24	12
151	Modal Analysis of 2-D Material-Based Plasmonic Waveguides by Mixed Spectral Element Method With Equivalent Boundary Condition. *Journal of Lightwave Technology*, **2020**, 38, 3677-3686	4	6
150	Duplex Mikaelian and Duplex Maxwell□ Fish-Eye Lenses. *Physical Review Applied*, **2020**, 13,	4.3	2
149	Bioinspired Conformal Transformation Acoustics. *Physical Review Applied*, **2020**, 13,	4.3	4
148	Plasmon-polaritonic quadrupole topological insulators. *Physical Review B*, **2020**, 101,	3.3	18
147	Anisotropic polaritons in van der Waals materials. *Informa□□Materi□*, **2020**, 2, 777-790	23.1	12
146	The Luneburg-Lissajous lens. *Europhysics Letters*, **2020**, 129, 64001	1.6	0
145	Enhanced third-harmonic generation induced by nonlinear field resonances in plasmonic-graphene metasurfaces. *Optics Express*, **2020**, 28, 13234-13242	3.3	9
144	Observation of light rays on absolute geodesic lenses. *Optics Express*, **2020**, 28, 20215-20224	3.3	2
143	3D broadband waveguide cloak and light squeezing in terahertz regime. *Optics Letters*, **2020**, 45, 652-655	3	1
142	Switchable bifunctional metasurfaces: nearly perfect retroreflection and absorption at the terahertz regime. *Optics Letters*, **2020**, 45, 3989-3992	3	10
141	Photonic hyperinterfaces for light manipulations. *Optica*, **2020**, 7, 687	8.6	6
140	Enhanced sum frequency generation for ultrasensitive characterization of plasmonic modes. *Nanophotonics*, **2020**, 9, 815-822	6.3	8
139	Metagrating in ancient Luoyang Bridge. *Europhysics Letters*, **2020**, 132, 24003	1.6	
138	Multiple drains in generalized Maxwell's fisheye lenses. *Optics Express*, **2020**, 28, 37218-37225	3.3	0

137	Transmutation of conformal singularities. *Journal of the Optical Society of America B: Optical Physics* , **2020**, 37, 1592	1.7	
136	Absorption characteristics of perfect absorber, electromagnetic □black hole□and inner perfectly matched layer. *Wuli Xuebao/Acta Physica Sinica*, **2020**, 69, 154201	0.6	
135	Perovskite Lenses: Flat Lenses Based on 2D Perovskite Nanosheets (Adv. Mater. 30/2020). *Advanced Materials*, **2020**, 32, 2070228	24	
134	Multi-Core Conformal Lenses. *Chinese Physics Letters*, **2020**, 37, 084202	1.8	1
133	Transformation cosmology. *Physical Review A*, **2020**, 102,	2.6	7
132	Bidirectional multi-mode microwave vortex beam generation enabled by spoof surface plasmon polaritons. *Applied Physics Letters*, **2020**, 117, 241601	3.4	11
131	Maxwell's fish-eye lenses under Schwartz-Christoffel mappings. *Physical Review A*, **2019**, 99,	2.6	9
130	Reversal of transmission and reflection based on acoustic metagratings with integer parity design. *Nature Communications*, **2019**, 10, 2326	17.4	71
129	Elastic conformal transparency. *Europhysics Letters*, **2019**, 125, 54003	1.6	0
128	Transformation devices with optical nihility media and reduced realizations. *Frontiers of Physics*, **2019**, 14, 1	3.7	8
127	Giant Goos-H□chen shift induced by bounded states in optical PT-symmetric bilayer structures. *Optics Express*, **2019**, 27, 7857-7867	3.3	25
126	Conformal Singularities and Topological Defects from Inverse Transformation Optics. *Physical Review Applied*, **2019**, 11,	4.3	8
125	Tunable surface plasmon polaritons and ultrafast dynamics in 2D nanohole arrays. *Nanoscale*, **2019**, 11, 16428-16436	7.7	5
124	Broadband Waveguide Cloak for Water Waves. *Physical Review Letters*, **2019**, 123, 074501	7.4	35
123	Mechanism Behind Angularly Asymmetric Diffraction in Phase-Gradient Metasurfaces. *Physical Review Applied*, **2019**, 12,	4.3	18
122	Conformal optical devices based on geodesic lenses. *Optics Express*, **2019**, 27, 28722-28733	3.3	9
121	Effect of truncation on photonic corner states in a Kagome lattice. *Optics Letters*, **2019**, 44, 4251-4254	3	11
120	Light rays and waves on geodesic lenses. *Photonics Research*, **2019**, 7, 1266	6	12

119	Universal multimode waveguide crossing based on transformation optics: publisher's note. *Optica*, **2019**, 6, 125	8.6	
118	Tunable edge states in reconfigurable photonic crystals. *Journal of Applied Physics*, **2019**, 126, 193105	2.5	10
117	Imprinted plasmonic measuring nanocylinders for nanoscale volumes of materials. *Nanophotonics*, **2019**, 9, 167-176	6.3	6
116	Photonic zero-energy modes in a metal-based Lieb lattice. *New Journal of Physics*, **2019**, 21, 113046	2.9	0
115	Caustics from Optical Conformal Mappings. *Physical Review Applied*, **2019**, 12,	4.3	5
114	Illusion Elastics in a Fluid Background. *Physical Review Applied*, **2019**, 11,	4.3	1
113	A feasible approach to field concentrators of arbitrary shapes. *Frontiers of Physics*, **2018**, 13, 1	3.7	8
112	Perfect Undetectable Acoustic Device from Fabry-Pérot Resonances. *Physical Review Applied*, **2018**, 9,	4.3	5
111	High transmission in a metal-based photonic crystal. *Applied Physics Letters*, **2018**, 112, 013504	3.4	8
110	Negative refraction based on purely imaginary metamaterials. *Frontiers of Physics*, **2018**, 13, 1	3.7	9
109	Perfect invisibility concentrator with simplified material parameters. *Frontiers of Physics*, **2018**, 13, 1	3.7	7
108	Size-dependent longitudinal plasmon resonance wavelength and extraordinary scattering properties of Au nanobipyramids. *Nanotechnology*, **2018**, 29, 355402	3.4	19
107	Compact acoustic retroreflector based on a mirrored Luneburg lens. *Physical Review Materials*, **2018**, 2,	3.2	28
106	Universal multimode waveguide crossing based on transformation optics. *Optica*, **2018**, 5, 1549	8.6	62
105	Coherent perfect absorption and laser modes in a cylindrical structure of conjugate metamaterials. *New Journal of Physics*, **2018**, 20, 013015	2.9	8
104	Analysis of a conformal invisible device. *Frontiers of Physics*, **2018**, 13, 1	3.7	3
103	Chemical bonds and edge states in a metamolecular crystal. *Physical Review B*, **2018**, 98,	3.3	4
102	Imaging along conformal curves. *Physical Review A*, **2018**, 98,	2.6	9

101	Acoustic Imaging with Metamaterial Luneburg Lenses. *Scientific Reports*, **2018**, 8, 16188	4.9	38
100	Definite photon deflections of ´topological´defects in metasurfaces and symmetry-breaking phase transitions with material loss. *Nature Communications*, **2018**, 9, 4271	17.4	34
99	Concentrators for Water Waves. *Physical Review Letters*, **2018**, 121, 104501	7.4	28
98	Conformal cloaks from a function composition. *Europhysics Letters*, **2017**, 117, 34002	1.6	3
97	Design of zero index metamaterials with PT symmetry using epsilon-near-zero media with defects. *Journal of Applied Physics*, **2017**, 121, 094503	2.5	19
96	Stable lossless polaritons on non-Hermitian optical interfaces. *Physical Review B*, **2017**, 95,	3.3	3
95	Perfect waveguide mode conversion via zero index metamaterials. *Journal of Optics (United Kingdom)*, **2017**, 19, 015102	1.7	1
94	Coherent perfect absorber and laser modes in purely imaginary metamaterials. *Physical Review A*, **2017**, 96,	2.6	11
93	Quantum many-body simulation using monolayer exciton-polaritons in coupled-cavities. *Journal of Physics Condensed Matter*, **2017**, 29, 445703	1.8	5
92	Self-Focusing and the Talbot Effect in Conformal Transformation Optics. *Physical Review Letters*, **2017**, 119, 033902	7.4	49
91	Broadband illusion optical devices based on conformal mappings. *Frontiers of Physics*, **2017**, 12, 1	3.7	5
90	Electromagnetic wave propagations in conjugate metamaterials. *Optics Express*, **2017**, 25, 4952-4966	3.3	15
89	Fano resonances from gradient-index metamaterials. *Scientific Reports*, **2016**, 6, 19927	4.9	7
88	Perfect conformal invisible device with feasible refractive indexes. *Physical Review B*, **2016**, 93,	3.3	17
87	Three-dimensional photonic Dirac points stabilized by point group symmetry. *Physical Review B*, **2016**, 93,	3.3	45
86	Planar gradient metamaterials. *Nature Reviews Materials*, **2016**, 1,	73.3	100
85	Zero index metamaterials with PT symmetry in a waveguide system. *Optics Express*, **2016**, 24, 1648-57	3.3	48
84	Broadband mode conversion via gradient index metamaterials. *Scientific Reports*, **2016**, 6, 24529	4.9	14

83	Metasurface-loaded waveguide for transformation optics applications. *Journal of Optics (United Kingdom)*, **2016**, 18, 044015	1.7	7
82	Experimental verification of free-space singular boundary conditions in an invisibility cloak. *Journal of Optics (United Kingdom)*, **2016**, 18, 044008	1.7	3
81	Total omnidirectional reflection by sub-wavelength gradient metallic gratings. *Europhysics Letters*, **2016**, 114, 34003	1.6	14
80	Accidental degeneracy in photonic bands and topological phase transitions in two-dimensional core-shell dielectric photonic crystals. *Optics Express*, **2016**, 24, 18059-71	3.3	105
79	Transformation optics with Fabry-P□ot resonances. *Scientific Reports*, **2015**, 5, 8680	4.9	60
78	Steering light by a sub-wavelength metallic grating from transformation optics. *Scientific Reports*, **2015**, 5, 12219	4.9	34
77	Inhomogeneous field in cavities of zero index metamaterials. *Scientific Reports*, **2015**, 5, 11217	4.9	13
76	A broadband polarization-insensitive cloak based on mode conversion. *Scientific Reports*, **2015**, 5, 12106	4.9	13
75	Optical Concentrators with Simple Layered Designs. *Scientific Reports*, **2015**, 5, 11015	4.9	10
74	Goos-H□chen effect in epsilon-near-zero metamaterials. *Scientific Reports*, **2015**, 5, 8681	4.9	59
73	Total transmission through a sub-wavelength slit based on Fabry-P□ot resonance and zero-index metamaterials. *Journal of Optics (United Kingdom)*, **2015**, 17, 105602	1.7	12
72	Conformal transformation optics. *Nature Photonics*, **2015**, 9, 15-23	33.9	164
71	Applications of gradient index metamaterials in waveguides. *Scientific Reports*, **2015**, 5, 18223	4.9	16
70	Infinite Maxwell fisheye inside a finite circle. *Journal of Optics (United Kingdom)*, **2015**, 17, 125102	1.7	4
69	Logarithm conformal mapping brings the cloaking effect. *Scientific Reports*, **2014**, 4, 6862	4.9	13
68	Invisible lenses with positive isotropic refractive index. *Physical Review A*, **2014**, 90,	2.6	14
67	An analogy strategy for transformation optics. *New Journal of Physics*, **2014**, 16, 063008	2.9	4
66	Perfect field concentrator using zero index metamaterials and perfect electric conductors. *Frontiers of Physics*, **2014**, 9, 90-93	3.7	21

65	Additional modes in a waveguide system of zero-index-metamaterials with defects. *Scientific Reports*, **2014**, 4, 6428	4.9	22
64	Probing Electric Field in an Enclosed Field Mapper for Characterizing Metamaterials. *International Journal of Antennas and Propagation*, **2014**, 2014, 1-5	1.2	1
63	Unidirectional transmission using array of zero-refractive-index metamaterials. *Applied Physics Letters*, **2014**, 104, 193509	3.4	51
62	Wavefront modulation and subwavelength diffractive acoustics with an acoustic metasurface. *Nature Communications*, **2014**, 5, 5553	17.4	506
61	Manipulating transverse magnetic modes in waveguide using thin plasmonic materials. *Laser and Photonics Reviews*, **2014**, 8, 562-568	8.3	5
60	Arbitrary control of electromagnetic flux in inhomogeneous anisotropic media with near-zero index. *Physical Review Letters*, **2014**, 112, 073903	7.4	64
59	Broadband asymmetric waveguiding of light without polarization limitations. *Nature Communications*, **2013**, 4, 2561	17.4	82
58	An illusion effect of Maxwell□s fish-eye lens. *Science China Information Sciences*, **2013**, 56, 1-5	3.4	
57	Carpet cloak from optical conformal mapping. *Science China Information Sciences*, **2013**, 56, 1-4	3.4	0
56	Nonlocality-Induced Negative Refraction and Subwavelength Imaging by Parabolic Dispersions in Metal□Dielectric Multilayered Structures with Effective Zero Permittivity. *Plasmonics*, **2013**, 8, 1095-1099	2.4	10
55	Oblique total transmissions through epsilon-near-zero metamaterials with hyperbolic dispersions. *Europhysics Letters*, **2013**, 101, 44001	1.6	9
54	Conformal cloaks at eigenfrequencies. *Journal Physics D: Applied Physics*, **2013**, 46, 135109	3	8
53	Playing the tricks of numbers of light sources. *New Journal of Physics*, **2013**, 15, 093034	2.9	21
52	Cloaking and imaging at the same time. *Europhysics Letters*, **2013**, 101, 34004	1.6	17
51	Transformation optics with artificial Riemann sheets. *New Journal of Physics*, **2013**, 15, 113013	2.9	8
50	Realizing almost perfect bending waveguides with anisotropic epsilon-near-zero metamaterials. *Applied Physics Letters*, **2012**, 100, 221903	3.4	96
49	An inside-out Eaton lens made of H-fractal metamaterials. *Applied Physics Letters*, **2012**, 101, 031903	3.4	17
48	A broadband perfect field rotator. *Frontiers of Physics*, **2012**, 7, 315-318	3.7	4

47	Manipulate the Transmissions Using Index-Near-Zero or Epsilon-Near-Zero Metamaterials with Coated Defects. *Plasmonics*, **2012**, 7, 353-358	2.4	39
46	Experimental realization of a broadband conformal mapping lens for directional emission. *Applied Physics Letters*, **2012**, 100, 261907	3.4	17
45	Collimating lenses from non-Euclidean transformation optics. *New Journal of Physics*, **2012**, 14, 023011	2.9	9
44	Conformal transformations to achieve unidirectional behavior of light. *New Journal of Physics*, **2012** , 14, 053023	2.9	11
43	Coherent perfect absorber makes a perfect drain for Maxwell's fish-eye lens. *Europhysics Letters*, **2012**, 100, 34001	1.6	7
42	Generalized laws of reflection and refraction from transformation optics. *Europhysics Letters*, **2012**, 99, 44002	1.6	5
41	Cloak an illusion. *Frontiers of Physics*, **2011**, 6, 61-64	3.7	4
40	An Invisibility Cloak Using Silver Nanowires. *Plasmonics*, **2011**, 6, 477-481	2.4	6
39	Overlapped illusion optics: a perfect lens brings a brighter feature. *New Journal of Physics*, **2011**, 13, 023010	2.9	31
38	Total reflection and transmission by epsilon-near-zero metamaterials with defects. *Applied Physics Letters*, **2011**, 98, 113501	3.4	114
37	Conformal cloak for waves. *Physical Review A*, **2011**, 83,	2.6	35
36	Electromagnetically induced Talbot effect. *Applied Physics Letters*, **2011**, 98, 081108	3.4	67
35	Transformation optics and metamaterials. *Nature Materials*, **2010**, 9, 387-96	27	835
34	Graded index photonic hole: Analytical and rigorous full wave solution. *Physical Review B*, **2010**, 82,	3.3	24
33	Acoustic cloaking and transformation acoustics. *Journal Physics D: Applied Physics*, **2010**, 43, 113001	3	236
32	Transformation optics that mimics the system outside a Schwarzschild black hole. *Optics Express*, **2010**, 18, 15183-8	3.3	84
31	A simple design of an artificial electromagnetic black hole. *Journal of Applied Physics*, **2010**, 108, 064517	2.5	41
30	Experimental realization of a circuit-based broadband illusion-optics analogue. *Physical Review Letters*, **2010**, 105, 233906	7.4	114

29	Illusion optics. *Frontiers of Physics in China*, **2010**, 5, 308-318		16
28	Non-Euclidean Cloaking for Light Waves. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 418-426	3.8	18
27	The Dynamical Study of the Metamaterial Systems **2010**, 183-214		
26	General transformation for the reduced invisibility cloak. *Physical Review B*, **2009**, 80,	3.3	9
25	Conceal an entrance by means of superscatterer. *Applied Physics Letters*, **2009**, 94, 223513	3.4	46
24	Transformation media based super focusing antenna. *Journal Physics D: Applied Physics*, **2009**, 42, 212002	3	16
23	A simple route to a tunable electromagnetic gateway. *New Journal of Physics*, **2009**, 11, 083012	2.9	35
22	Transformation media for linear liquid surface waves. *Europhysics Letters*, **2009**, 85, 24004	1.6	44
21	Illusion optics: the optical transformation of an object into another object. *Physical Review Letters*, **2009**, 102, 253902	7.4	464
20	Metamaterial frequency-selective superabsorber. *Optics Letters*, **2009**, 34, 644-6	3	127
19	"Cloaking at a distance" from folded geometries in bipolar coordinates. *Optics Letters*, **2009**, 34, 2649-51	3	32
18	Transformation optical design of a bending waveguide by use of isotropic materials. *Applied Optics*, **2009**, 48, G101-5	0.2	12
17	Complementary media invisibility cloak that cloaks objects at a distance outside the cloaking shell. *Physical Review Letters*, **2009**, 102, 093901	7.4	433
16	Transformation optics in orthogonal coordinates. *Journal of Optics*, **2009**, 11, 075102		36
15	Design and experimental realization of a broadband transformation media field rotator at microwave frequencies. *Physical Review Letters*, **2009**, 102, 183903	7.4	193
14	Polarization gaps and negative group velocity in chiral phononic crystals: Layer multiple scattering method. *Physical Review B*, **2008**, 77,	3.3	10
13	Transformation media that turn a narrow slit into a large window. *Optics Express*, **2008**, 16, 11764-8	3.3	16
12	The anti-cloak. *Optics Express*, **2008**, 16, 14603-8	3.3	94

11	Superscatterer: enhancement of scattering with complementary media. *Optics Express*, **2008**, 16, 18545-50	3.3	204
10	Electromagnetic wave manipulation by layered systems using the transformation media concept. *Physical Review B*, **2008**, 78,	3.3	81
9	Impedance-Matched Reduced Acoustic Cloaking with Realizable Mass and Its Layered Design. *Chinese Physics Letters*, **2008**, 25, 3696-3699	1.8	23
8	Reshaping the perfect electrical conductor cylinder arbitrarily. *New Journal of Physics*, **2008**, 10, 113016	2.9	42
7	Time delays and energy transport velocities in three dimensional ideal cloaking devices. *Journal of Applied Physics*, **2008**, 104, 033113	2.5	25
6	Acoustic cloaking in three dimensions using acoustic metamaterials. *Applied Physics Letters*, **2007**, 91, 183518	3.4	633
5	Scattering of elastic waves by elastic spheres in a NaCl-type phononic crystal. *Physical Review B*, **2007**, 75,	3.3	15
4	Transformation media that rotate electromagnetic fields. *Applied Physics Letters*, **2007**, 90, 241105	3.4	404
3	Extending the bandwidth of electromagnetic cloaks. *Physical Review B*, **2007**, 76,	3.3	108
2	The density profile of hard sphere liquid system under gravity. *Journal of Chemical Physics*, **2006**, 125, 24510	3.9	13
1	Multi-optical effects in two-dimensional photonic crystals of metallic pairs. *Europhysics Letters*,	1.6	