

# Chen Shen

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

46  
papers

1,634  
citations

22  
h-index

40  
g-index

69  
ext. papers

2,205  
ext. citations

6.7  
avg, IF

5.28  
L-index

#	Paper	IF	Citations
46	Flexible planar metamaterials with tunable Poisson's ratios. <i>Materials and Design</i> , <b>2022</b> , 215, 110446	8.1	6
45	Topological Supercavity Resonances in the Finite System.. <i>Advanced Science</i> , <b>2022</b> , e2200257	13.6	4
44	Breaking the acoustic diffraction limit with an arbitrary shape acoustic magnifying lens. <i>Scientific Reports</i> , <b>2021</b> , 11, 12958	4.9	2
43	Customized broadband pentamode metamaterials by topology optimization. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2021</b> , 152, 104407	5	16
42	Electrically Tunable Surface Acoustic Wave Propagation at MHz Frequencies Based on Carbon Nanotube Thin-Film Transistors. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2010744	15.6	3
41	Efficient scattering-free wavefront transformation with power flow conformal bianisotropic acoustic metasurfaces. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 061902	3.4	5
40	Characterization of an underwater metamaterial made of aluminum honeycomb panels at low frequencies. <i>Journal of the Acoustical Society of America</i> , <b>2021</b> , 149, 1829	2.2	2
39	Acoustic tweezer with complex boundary-free trapping and transport channel controlled by shadow waveguides. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	7
38	Sound trapping in an open resonator. <i>Nature Communications</i> , <b>2021</b> , 12, 4819	17.4	9
37	Non-closed acoustic cloaking devices enabled by sequential-step linear coordinate transformations. <i>Scientific Reports</i> , <b>2021</b> , 11, 1845	4.9	3
36	Acoustofluidic Holography for Micro- to Nanoscale Particle Manipulation. <i>ACS Nano</i> , <b>2020</b> , 14, 14635-14645	14.5	25
35	Dispersion tuning and route reconfiguration of acoustic waves in valley topological phononic crystals. <i>Nature Communications</i> , <b>2020</b> , 11, 762	17.4	58
34	Non-reciprocal acoustic transmission via space-time modulated membranes. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 034101	3.4	14
33	Sound vortex diffraction via topological charge in phase gradient metagratings. <i>Science Advances</i> , <b>2020</b> , 6,	14.3	29
32	Switchable directional sound emission with improved field confinement based on topological insulators. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 043503	3.4	4
31	Tunable unidirectional compact acoustic amplifier via space-time modulated membranes. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	8
30	Nonreciprocal acoustic transmission in space-time modulated coupled resonators. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	22

29	Reversal of transmission and reflection based on acoustic metagratings with integer parity design. <i>Nature Communications</i> , <b>2019</b> , 10, 2326	17.4	71
28	Fabrication and experimental demonstration of a hybrid resonant acoustic gradient index metasurface at 40 kHz. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 231902	3.4	21
27	Nonreciprocal acoustic transmission in cascaded resonators via spatiotemporal modulation. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	17
26	Nonreciprocal sound propagation in space-time modulated media. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	28
25	Broadband high-index prism for asymmetric acoustic transmission. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 121902	3.4	14
24	Highly Efficient Generation of Angular Momentum with Cylindrical Bianisotropic Metasurfaces. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	19
23	Programmable Acoustic Metasurfaces. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808489	15.6	83
22	Transfer matrix method for the analysis of space-time-modulated media and systems. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	13
21	Power flow-conformal metamirrors for engineering wave reflections. <i>Science Advances</i> , <b>2019</b> , 5, eaau7288	14.3	27
20	Asymmetric Absorption in Acoustic Metamirror Based on Surface Impedance Engineering. <i>Physical Review Applied</i> , <b>2019</b> , 12,	4.3	9
19	Systematic design and experimental demonstration of bianisotropic metasurfaces for scattering-free manipulation of acoustic wavefronts. <i>Nature Communications</i> , <b>2018</b> , 9, 1342	17.4	125
18	Systematic design of broadband path-coiling acoustic metamaterials. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 025101	2.5	31
17	A surface impedance-based three-channel acoustic metasurface retroreflector. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 183503	3.4	29
16	Acoustic metacages for sound shielding with steady air flow. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 124501	2.5	46
15	Harnessing Multiple Internal Reflections to Design Highly Absorptive Acoustic Metasurfaces. <i>Physical Review Applied</i> , <b>2018</b> , 9,	4.3	32
14	Compact acoustic retroreflector based on a mirrored Luneburg lens. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	28
13	Synthetic exceptional points and unidirectional zero reflection in non-Hermitian acoustic systems. <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	27
12	Acoustic Imaging with Metamaterial Luneburg Lenses. <i>Scientific Reports</i> , <b>2018</b> , 8, 16188	4.9	38

11	Tunable Asymmetric Transmission via Lossy Acoustic Metasurfaces. <i>Physical Review Letters</i> , <b>2017</b> , 119, 035501	7.4	208
10	Acoustic Holographic Rendering with Two-dimensional Metamaterial-based Passive Phased Array. <i>Scientific Reports</i> , <b>2016</b> , 6, 35437	4.9	92
9	On the evaluation of effective density for plate- and membrane-type acoustic metamaterials without mass attached. <i>Journal of the Acoustical Society of America</i> , <b>2016</b> , 140, 908	2.2	12
8	Loss-induced Enhanced Transmission in Anisotropic Density-near-zero Acoustic Metamaterials. <i>Scientific Reports</i> , <b>2016</b> , 6, 37918	4.9	5
7	Membrane- and plate-type acoustic metamaterials. <i>Journal of the Acoustical Society of America</i> , <b>2016</b> , 139, 3240	2.2	109
6	Asymmetric acoustic transmission through near-zero-index and gradient-index metasurfaces. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 223502	3.4	110
5	Broadband Acoustic Hyperbolic Metamaterial. <i>Physical Review Letters</i> , <b>2015</b> , 115, 254301	7.4	104
4	Side branch-based acoustic metamaterials with a broad-band negative bulk modulus. <i>Applied Physics A: Materials Science and Processing</i> , <b>2014</b> , 117, 1885-1891	2.6	12
3	Anisotropic Complementary Acoustic Metamaterial for Canceling out Aberrating Layers. <i>Physical Review X</i> , <b>2014</b> , 4,	9.1	85
2	Density-Graded Cellular Solids: Mechanics, Fabrication, and Applications. <i>Advanced Engineering Materials</i> , 2100646	3.5	8
1	Achromatic metasurfaces by dispersion customization for ultra-broadband acoustic beam engineering. <i>National Science Review</i> ,	10.8	4