Chen Shen

List of Publications by Citations

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	Tunable Asymmetric Transmission via Lossy Acoustic Metasurfaces. *Physical Review Letters*, **2017**, 119, 035501	7.4	208
45	Systematic design and experimental demonstration of bianisotropic metasurfaces for scattering-free manipulation of acoustic wavefronts. *Nature Communications*, **2018**, 9, 1342	17.4	125
44	Asymmetric acoustic transmission through near-zero-index and gradient-index metasurfaces. *Applied Physics Letters*, **2016**, 108, 223502	3.4	110
43	Membrane- and plate-type acoustic metamaterials. *Journal of the Acoustical Society of America*, **2016**, 139, 3240	2.2	109
42	Broadband Acoustic Hyperbolic Metamaterial. *Physical Review Letters*, **2015**, 115, 254301	7.4	104
41	Acoustic Holographic Rendering with Two-dimensional Metamaterial-based Passive Phased Array. *Scientific Reports*, **2016**, 6, 35437	4.9	92
40	Anisotropic Complementary Acoustic Metamaterial for Canceling out Aberrating Layers. *Physical Review X*, **2014**, 4,	9.1	85
39	Programmable Acoustic Metasurfaces. *Advanced Functional Materials*, **2019**, 29, 1808489	15.6	83
38	Reversal of transmission and reflection based on acoustic metagratings with integer parity design. *Nature Communications*, **2019**, 10, 2326	17.4	71
37	Dispersion tuning and route reconfiguration of acoustic waves in valley topological phononic crystals. *Nature Communications*, **2020**, 11, 762	17.4	58
36	Acoustic metacages for sound shielding with steady air flow. *Journal of Applied Physics*, **2018**, 123, 124501	2.5	46
35	Acoustic Imaging with Metamaterial Luneburg Lenses. *Scientific Reports*, **2018**, 8, 16188	4.9	38
34	Harnessing Multiple Internal Reflections to Design Highly Absorptive Acoustic Metasurfaces. *Physical Review Applied*, **2018**, 9,	4.3	32
33	Systematic design of broadband path-coiling acoustic metamaterials. *Journal of Applied Physics*, **2018**, 123, 025101	2.5	31
32	A surface impedance-based three-channel acoustic metasurface retroreflector. *Applied Physics Letters*, **2018**, 112, 183503	3.4	29
31	Sound vortex diffraction via topological charge in phase gradient metagratings. *Science Advances*, **2020**, 6,	14.3	29
30	Nonreciprocal sound propagation in space-time modulated media. *Physical Review B*, **2019**, 99,	3.3	28

29	Compact acoustic retroreflector based on a mirrored Luneburg lens. *Physical Review Materials*, **2018**, 2,	3.2	28
28	Synthetic exceptional points and unidirectional zero reflection in non-Hermitian acoustic systems. *Physical Review Materials*, **2018**, 2,	3.2	27
27	Power flow-conformal metamirrors for engineering wave reflections. *Science Advances*, **2019**, 5, eaau7288	14.3	27
26	Acoustofluidic Holography for Micro- to Nanoscale Particle Manipulation. *ACS Nano*, **2020**, 14, 14635-14645	16.7	25
25	Nonreciprocal acoustic transmission in space-time modulated coupled resonators. *Physical Review B*, **2019**, 100,	3.3	22
24	Fabrication and experimental demonstration of a hybrid resonant acoustic gradient index metasurface at 40 kHz. *Applied Physics Letters*, **2019**, 114, 231902	3.4	21
23	Highly Efficient Generation of Angular Momentum with Cylindrical Bianisotropic Metasurfaces. *Physical Review Applied*, **2019**, 11,	4.3	19
22	Nonreciprocal acoustic transmission in cascaded resonators via spatiotemporal modulation. *Physical Review B*, **2019**, 99,	3.3	17
21	Customized broadband pentamode metamaterials by topology optimization. *Journal of the Mechanics and Physics of Solids*, **2021**, 152, 104407	5	16
20	Broadband high-index prism for asymmetric acoustic transmission. *Applied Physics Letters*, **2019**, 114, 121902	3.4	14
19	Non-reciprocal acoustic transmission via space-time modulated membranes. *Applied Physics Letters*, **2020**, 116, 034101	3.4	14
18	Transfer matrix method for the analysis of space-time-modulated media and systems. *Physical Review B*, **2019**, 100,	3.3	13
17	Side branch-based acoustic metamaterials with a broad-band negative bulk modulus. *Applied Physics A: Materials Science and Processing*, **2014**, 117, 1885-1891	2.6	12
16	On the evaluation of effective density for plate- and membrane-type acoustic metamaterials without mass attached. *Journal of the Acoustical Society of America*, **2016**, 140, 908	2.2	12
15	Asymmetric Absorption in Acoustic Metamirror Based on Surface Impedance Engineering. *Physical Review Applied*, **2019**, 12,	4.3	9
14	Sound trapping in an open resonator. *Nature Communications*, **2021**, 12, 4819	17.4	9
13	Tunable unidirectional compact acoustic amplifier via space-time modulated membranes. *Physical Review B*, **2020**, 102,	3.3	8
12	Density-Graded Cellular Solids: Mechanics, Fabrication, and Applications. *Advanced Engineering Materials*,2100646	3.5	8

11	Acoustic tweezer with complex boundary-free trapping and transport channel controlled by shadow waveguides. *Science Advances*, **2021**, 7,	14.3	7
10	Flexible planar metamaterials with tunable Poisson ratios. *Materials and Design*, **2022**, 215, 110446	8.1	6
9	Loss-induced Enhanced Transmission in Anisotropic Density-near-zero Acoustic Metamaterials. *Scientific Reports*, **2016**, 6, 37918	4.9	5
8	Efficient scattering-free wavefront transformation with power flow conformal bianisotropic acoustic metasurfaces. *Applied Physics Letters*, **2021**, 118, 061902	3.4	5
7	Switchable directional sound emission with improved field confinement based on topological insulators. *Applied Physics Letters*, **2020**, 117, 043503	3.4	4
6	Achromatic metasurfaces by dispersion customization for ultra-broadband acoustic beam engineering. *National Science Review*,	10.8	4
5	Topological Supercavity Resonances in the Finite System.. *Advanced Science*, **2022**, e2200257	13.6	4
4	Electrically Tunable Surface Acoustic Wave Propagation at MHz Frequencies Based on Carbon Nanotube Thin-Film Transistors. *Advanced Functional Materials*, **2021**, 31, 2010744	15.6	3
3	Non-closed acoustic cloaking devices enabled by sequential-step linear coordinate transformations. *Scientific Reports*, **2021**, 11, 1845	4.9	3
2	Breaking the acoustic diffraction limit with an arbitrary shape acoustic magnifying lens. *Scientific Reports*, **2021**, 11, 12958	4.9	2
1	Characterization of an underwater metamaterial made of aluminum honeycomb panels at low frequencies. *Journal of the Acoustical Society of America*, **2021**, 149, 1829	2.2	2