

Xue-Feng Zhu

List of Publications by Year in descending order

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87
papers

4,967
citations

117625

34
h-index

88630

70
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88
all docs

88
docs citations

88
times ranked

3028
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient realization of on-demand functional ultrasonic fields based on prolate spheroidal wave functions from sampling theorem. <i>Journal of the Acoustical Society of America</i> , 2022, 151, 96-104.	1.1	4
2	Reciprocity of thermal diffusion in time-modulated systems. <i>Nature Communications</i> , 2022, 13, 167.	12.8	24
3	Observation of Transient Parity-Time Symmetry in Electronic Systems. <i>Physical Review Letters</i> , 2022, 128, 065701.	7.8	39
4	Observing localization and delocalization of the flat-band states in an acoustic cubic lattice. <i>Physical Review B</i> , 2022, 105, .	3.2	4
5	Square-root-like higher-order topological states in three-dimensional sonic crystals. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 104001.	1.8	11
6	Phase-Locking Diffusive Skin Effect. <i>Chinese Physics Letters</i> , 2022, 39, 057801.	3.3	19
7	Heat transfer control using a thermal analogue of coherent perfect absorption. <i>Nature Communications</i> , 2022, 13, 2683.	12.8	21
8	Far-field super-resolution focusing with weak side lobes and defect detection via an ultrasonic meta-lens of sharp-edge apertures. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	4
9	Elastic topological interface states induced by incident angle. <i>International Journal of Mechanical Sciences</i> , 2022, 225, 107359.	6.7	4
10	Generating Multistructured Ultrasound via Bioinspired Metaskin Patterning for Low-Threshold and Contactless Control of Living Organisms. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	9
11	Realizing the second harmonic acoustic focusing based on an artificial bubble array. <i>AIP Advances</i> , 2022, 12, 065120.	1.3	0
12	Geometric Phase and Localized Heat Diffusion. <i>Advanced Materials</i> , 2022, 34, .	21.0	18
13	3D Printed Ultra-thin Acoustic Metamaterials with Adaptable Low-frequency Absorption Performance. , 2022, 1, 100036.		1
14	Hole-dominated Fowler-Nordheim tunneling in 2D heterojunctions for infrared imaging. <i>Science Bulletin</i> , 2021, 66, 139-146.	9.0	17
15	Experimental evidence of selective generation and one-way conversion of parities in valley sonic crystals. <i>Journal of Applied Physics</i> , 2021, 129, 074504.	2.5	3
16	Square-root non-Bloch topological insulators in non-Hermitian ring resonators. <i>Optics Express</i> , 2021, 29, 8462.	3.4	39
17	Anti-parity-time symmetric phase transition in diffusive systems*. <i>Chinese Physics B</i> , 2021, 30, 030505.	1.4	4
18	Selective Topological Pumping for Robust, Efficient, and Asymmetric Sound Energy Transfer in a Dynamically Coupled Cavity Chain. <i>Physical Review Applied</i> , 2021, 15, .	3.8	13

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19	Experimental realization of ultrasonic retroreflection tweezing via metagratings. <i>Ultrasonics</i> , 2021, 117, 106548.	3.9	14
20	Subwavelength acoustic energy harvesting via topological interface states in 1D Helmholtz resonator arrays. <i>AIP Advances</i> , 2021, 11, .	1.3	7
21	Acoustic topological adiabatic passage via a level crossing. <i>Science China: Physics, Mechanics and Astronomy</i> , 2021, 64, 1.	5.1	11
22	Diffusive skin effect and topological heat funneling. <i>Communications Physics</i> , 2021, 4, .	5.3	21
23	Controlling Sound in Non-Hermitian Acoustic Systems. <i>Physical Review Applied</i> , 2021, 16, .	3.8	41
24	Efficient nonreciprocal mode transitions in spatiotemporally modulated acoustic metamaterials. <i>Science Advances</i> , 2021, 7, eabj1198.	10.3	40
25	An Acoustic Meta-Skin Insulator. <i>Advanced Materials</i> , 2020, 32, e2002251.	21.0	26
26	Acoustic Adiabatic Propagation Based on Topological Pumping in a Coupled Multicavity Chain Lattice. <i>Physical Review Applied</i> , 2020, 14, .	3.8	21
27	Valleylike Edge States in Chiral Phononic Crystals with Dirac Degeneracies beyond High-Symmetry Points and Boundaries of Brillouin Zones. <i>Physical Review Applied</i> , 2020, 14, .	3.8	17
28	A Continuously Tunable Solid-Like Convective Thermal Metadevice on the Reciprocal Line. <i>Advanced Materials</i> , 2020, 32, e2003823.	21.0	45
29	Meta-neural-network for real-time and passive deep-learning-based object recognition. <i>Nature Communications</i> , 2020, 11, 6309.	12.8	49
30	Super-resolution acoustic image montage via a biaxial metamaterial lens. <i>Science Bulletin</i> , 2020, 65, 1022-1029.	9.0	27
31	Revealing the missing dimension at an exceptional point. <i>Nature Physics</i> , 2020, 16, 571-578.	16.7	100
32	Realization of controllable acoustic acceleration beams via flexible active surfaces. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 155502.	2.8	6
33	Unidirectional Extraordinary Sound Transmission with Mode-Selective Resonant Materials. <i>Physical Review Applied</i> , 2020, 13, .	3.8	30
34	3D Printed Meta-Helmet for Wide-Angle Thermal Camouflages. <i>Advanced Functional Materials</i> , 2020, 30, 2002061.	14.9	46
35	Probability-Density-Based Deep Learning Paradigm for the Fuzzy Design of Functional Metastructures. <i>Research</i> , 2020, 2020, 8757403.	5.7	19
36	Roadmap on STIRAP applications. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019, 52, 202001.	1.5	108

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37	Mirror-symmetry induced topological valley transport along programmable boundaries in a hexagonal sonic crystal. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 245403.	1.8	15
38	Experimental Demonstration of Acoustic Valley Hall Topological Insulators with the Robust Selection of C_{3v} -Symmetric Scatterers. <i>Physical Review Applied</i> , 2019, 12, .	3.8	34
39	Switching between deterministic and accidental Dirac degeneracy by rotating scatterers and the multi-channel topological transport of sound. <i>New Journal of Physics</i> , 2019, 21, 073047.	2.9	11
40	Ultrasonic super-oscillation wave-packets with an acoustic meta-lens. <i>Nature Communications</i> , 2019, 10, 3411.	12.8	81
41	Spectrum Manipulation for Sound with Effective Gauge Fields in Cascading Temporally Modulated Waveguides. <i>Physical Review Applied</i> , 2019, 11, .	3.8	4
42	Active Acoustic Metasurface: Complete Elimination of Grating Lobes for High-Quality Ultrasound Focusing and Controllable Steering. <i>Physical Review Applied</i> , 2019, 11, .	3.8	23
43	One-Way Localized Adiabatic Passage in an Acoustic System. <i>Physical Review Letters</i> , 2019, 122, 094501.	7.8	50
44	Topological nodal line states in three-dimensional ball-and-stick sonic crystals. <i>Physical Review B</i> , 2019, 100, .	3.2	16
45	Experimental Demonstration of Acoustic Chern Insulators. <i>Physical Review Letters</i> , 2019, 122, 014302.	7.8	205
46	Thermal meta-device in analogue of zero-index photonics. <i>Nature Materials</i> , 2019, 18, 48-54.	27.5	172
47	Chirality-assisted three-dimensional acoustic Floquet lattices. <i>Physical Review Research</i> , 2019, 1, .	3.6	26
48	Anti- ϵ parity-time symmetry in diffusive systems. <i>Science</i> , 2019, 364, 170-173.	12.6	217
49	Topological acoustic transports in chiral sonic crystals. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2019, 68, 227802.	0.5	3
50	Topologically protected bound states in one-dimensional Floquet acoustic waveguide systems. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	30
51	Fine manipulation of sound via lossy metamaterials with independent and arbitrary reflection amplitude and phase. <i>Nature Communications</i> , 2018, 9, 1632.	12.8	150
52	Lasing With Resonant Feedback in Weakly Modulated Parity-Time Symmetric Lattices. <i>IEEE Photonics Journal</i> , 2018, 10, 1-6.	2.0	1
53	Observation of elastic topological states in soft materials. <i>Nature Communications</i> , 2018, 9, 1370.	12.8	78
54	Spectrum Control through Discrete Frequency Diffraction in the Presence of Photonic Gauge Potentials. <i>Physical Review Letters</i> , 2018, 120, 133901.	7.8	92

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55	Unidirectional Wave Vector Manipulation in Two-Dimensional Space with an All Passive Acoustic Parity-Time-Symmetric Metamaterials Crystal. <i>Physical Review Letters</i> , 2018, 120, 124502.	7.8	122
56	Acoustic Metasurfaces: Hollow-Out Patterning Ultrathin Acoustic Metasurfaces for Multifunctionalities Using Soft fiber/Rigid Bead Networks (<i>Adv. Funct. Mater.</i> 36/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870251.	14.9	2
57	Hollow-Out Patterning Ultrathin Acoustic Metasurfaces for Multifunctionalities Using Soft fiber/Rigid Bead Networks. <i>Advanced Functional Materials</i> , 2018, 28, 1801127.	14.9	42
58	Topologically protected edge transport of sound in coupled cavities of a modified honeycomb lattice. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 345401.	1.8	9
59	Acoustic delay-line filters based on largely distorted topological insulators. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	30
60	Low-loss and broadband anomalous Floquet topological insulator for airborne sound. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	45
61	Observation of low-loss broadband supermode propagation in coupled acoustic waveguide complex. <i>Scientific Reports</i> , 2017, 7, 45603.	3.3	9
62	Observation of acoustic Dirac-like cone and double zero refractive index. <i>Nature Communications</i> , 2017, 8, 14871.	12.8	123
63	Topological valley transport of plate-mode waves in a homogenous thin plate with periodic stubbed surface. <i>AIP Advances</i> , 2017, 7, .	1.3	50
64	Valley-protected backscattering suppression of elastic wave in two-dimensional solid phononic crystals. , 2017, , .		0
65	Strongly localized states at the band-inverting interface with periodic lattice dislocations. <i>AIP Advances</i> , 2016, 6, 115312.	1.3	1
66	Bound states in one-dimensional acoustic parity-time-symmetric lattices for perfect sensing. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2016, 380, 2698-2702.	2.1	17
67	Deep-Subwavelength-Scale Directional Sensing Based on Highly Localized Dipolar Mie Resonances. <i>Physical Review Applied</i> , 2016, 5, .	3.8	55
68	Experimental demonstration of anomalous Floquet topological insulator for sound. <i>Nature Communications</i> , 2016, 7, 13368.	12.8	344
69	Implementation of dispersion-free slow acoustic wave propagation and phase engineering with helical-structured metamaterials. <i>Nature Communications</i> , 2016, 7, 11731.	12.8	236
70	High-Efficiency Vertical Light Emission through a Compact Silicon Nanoantenna Array. <i>ACS Photonics</i> , 2016, 3, 324-328.	6.6	14
71	Broadband Lamb Wave Trapping in Cellular Metamaterial Plates with Multiple Local Resonances. <i>Scientific Reports</i> , 2015, 5, 9376.	3.3	23
72	Demonstration of a large-scale optical exceptional point structure. <i>Optics Express</i> , 2014, 22, 1760.	3.4	134

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73	$\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi mathvariant="script"} \rangle P \langle \text{mml:mi} \rangle \langle \text{mml:mi mathvariant="script"} \rangle T \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -Symmetric Acoustics. Physical Review X, 2014, 4, .	8.9	295
74	Broadband and wide-angle negative reflection at a phononic crystal boundary. Applied Physics Letters, 2014, 104, .	3.3	22
75	Generation of acoustic self-bending and bottle beams by phase engineering. Nature Communications, 2014, 5, 4316.	12.8	189
76	One-way invisible cloak using parity-time symmetric transformation optics. Optics Letters, 2013, 38, 2821.	3.3	136
77	Acoustic one-way frequency up-converter with high transmission efficiency. Journal of Applied Physics, 2013, 114, 134508.	2.5	16
78	Controllable acoustic rectification in one-dimensional piezoelectric composite plates. Journal of Applied Physics, 2013, 114, .	2.5	19
79	Acoustic rainbow trapping. Scientific Reports, 2013, 3, .	3.3	240
80	Acoustic focusing by coiling up space. Applied Physics Letters, 2012, 101, .	3.3	297
81	Scattering reduction for an acoustic sensor using a multilayered shell comprising a pair of homogeneous isotropic single-negative media. Applied Physics Letters, 2012, 101, .	3.3	21
82	A broadband acoustic omnidirectional absorber comprising positive-index materials. Applied Physics Letters, 2011, 99, .	3.3	72
83	Acoustic Cloaking by a Superlens with Single-Negative Materials. Physical Review Letters, 2011, 106, 014301.	7.8	181
84	Nonpropagating X-shaped acoustic waves in sonic crystals without defects. Applied Physics Letters, 2010, 97, 223504.	3.3	4
85	One-way mode transmission in one-dimensional phononic crystal plates. Journal of Applied Physics, 2010, 108, .	2.5	123
86	Study of acoustic wave behavior in silicon-based one-dimensional phononic-crystal plates using harmony response analysis. Journal of Applied Physics, 2009, 106, 104901.	2.5	25
87	Underwater Transmitted Wavefront Manipulation Based on Bubble-Arrayed Acoustic Metasurfaces. Frontiers in Physics, 0, 10, .	2.1	0