Jihong Wen

List of Publications by Year in descending order

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Version: 2024-02-01

100 papers	5,954 citations	76031 42 h-index	87275 74 g-index
101 all docs	101 docs citations	101 times ranked	2179 citing authors

#	Article	IF	Citations
1	Higher-order topological states in locally resonant elastic metamaterials. Applied Physics Letters, 2022, 120, .	1.5	19
2	Topological design of lattice materials with application to underwater sound insulation. Mechanical Systems and Signal Processing, 2022, 171, 108911.	4.4	17
3	Multiscale modeling and design of lattice truss core sandwich metastructures for broadband low-frequency vibration reduction. Composite Structures, 2022, 289, 115463.	3.1	17
4	A Visual Fault Detection Method for Induction Motors Based on a Zero-Sequence Current and an Improved Symmetrized Dot Pattern. Entropy, 2022, 24, 614.	1.1	0
5	A nonlinear metamaterial plate for suppressing vibration and sound radiation. International Journal of Mechanical Sciences, 2022, 228, 107473.	3.6	33
6	Vibration properties and optimized design of a nonlinear acoustic metamaterial beam. Journal of Sound and Vibration, 2021, 492, 115739.	2.1	46
7	Absorption Mechanism and Optimization of a Subwavelength Acoustic Absorber. Journal of Physics: Conference Series, 2021, 1838, 012017.	0.3	0
8	Inverse design of structured materials for broadband sound absorption. Journal Physics D: Applied Physics, 2021, 54, 265301.	1.3	18
9	Bidirectional Elastic Diode with Frequency-Preserved Nonreciprocity. Physical Review Applied, 2021, 15, .	1.5	13
10	Multiple topological interface states in broadband locally resonant phononic crystals. Journal of Applied Physics, 2021, 129, .	1.1	23
11	Sound transmission loss of plate-type metastructures: Semi-analytical modeling, elaborate analysis, and experimental validation. Mechanical Systems and Signal Processing, 2021, 153, 107487.	4.4	31
12	Accelerated topological design of metaporous materials of broadband sound absorption performance by generative adversarial networks. Materials and Design, 2021, 207, 109855.	3.3	21
13	Closed-form bandgap design formulas for beam-type metastructures. Mechanical Systems and Signal Processing, 2021, 159, 107777.	4.4	29
14	Coherent coupling based meta-structures for high acoustic absorption at 220â€“500ÂHz frequency. Applied Acoustics, 2021, 182, 108181.	1.7	4
15	Transmission and bandgap characteristics of a duct mounted with multiple hybrid Helmholtz resonators. Applied Acoustics, 2021, 183, 108266.	1.7	18
16	Acoustic absorption of a metamaterial panel: Mechanism, boundary effect and experimental demonstration. Applied Acoustics, 2021, 184, 108369.	1.7	16
17	SAP-Net: Deep learning to predict sound absorption performance of metaporous materials. Materials and Design, 2021, 212, 110156.	3.3	19
18	Vibration and sound properties of metamaterial sandwich panels with periodically attached resonators: Simulation and experiment study. Journal of Sound and Vibration, 2020, 489, 115644.	2.1	39

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19	Closed-form formulas for bandgap estimation and design of metastructures undergoing longitudinal or torsional vibration. Journal of Sound and Vibration, 2020, 485, 115578.	2.1	29
20	Improvement of sound absorption and insulation using a double-layer metamaterial. AIP Advances, 2020, 10, .	0.6	8
21	Low-frequency sound absorber based on micro-slit entrance and space-coiling channels. Japanese Journal of Applied Physics, 2020, 59, 045503.	0.8	7
22	Interplay of local resonances and Bragg band gaps in acoustic waveguides with periodic detuned resonators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2020, 384, 126253.	0.9	16
23	A double porosity material for low frequency sound absorption. Composite Structures, 2020, 239, 111978.	3.1	69
24	Analysis of an Ultra-Low Frequency and Ultra-Broadband Phononic Crystals Silencer with Small Size. Journal of Theoretical and Computational Acoustics, 2019, 27, 1850026.	0.5	6
25	A nonlinear dissipative elastic metamaterial for broadband wave mitigation. International Journal of Mechanical Sciences, 2019, 164, 105159.	3.6	59
26	Quasi-perfect absorption achieved throughout low frequency range via acoustic meta-surface. Japanese Journal of Applied Physics, 2019, 58, 120904.	0.8	4
27	Bloch wave based method for dynamic homogenization and vibration analysis of lattice truss core sandwich structures. Composite Structures, 2019, 229, 111437.	3.1	14
28	Low-frequency sound absorption of hybrid absorber based on micro-perforated panel and coiled-up channels. Applied Physics Letters, 2019, 114, .	1.5	137
29	Theoretical requirements and inverse design for broadband perfect absorption of low-frequency waterborne sound by ultrathin metasurface. Scientific Reports, 2019, 9, 1181.	1.6	26
30	Hybrid meta-structure for broadband waterborne sound absorption. AIP Advances, 2019, 9, .	0.6	13
31	On wave propagation and attenuation properties of underwater acoustic screens consisting of periodically perforated rubber layers with metal plates. Journal of Sound and Vibration, 2019, 444, 21-34.	2.1	19
32	Flexural Wave Bandgap Property of a Periodic Pipe with Axial Load and Hydro-Pressure. Acta Mechanica Solida Sinica, 2019, 32, 173-185.	1.0	20
33	Suppression of the vibration and sound radiation of a sandwich plate via periodic design. International Journal of Mechanical Sciences, 2019, 150, 744-754.	3.6	55
34	On the accuracy and optimization application of an axisymmetric simplified model for underwater sound absorption of anechoic coatings. Applied Acoustics, 2019, 145, 104-111.	1.7	36
35	Optimization of decoupling performance of underwater acoustic coating with cavities via equivalent fluid model. Journal of Sound and Vibration, 2018, 426, 244-257.	2.1	25
36	Effect of Poisson's loss factor of rubbery material on underwater sound absorption of anechoic coatings. Journal of Sound and Vibration, 2018, 424, 293-301.	2.1	33

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37	Wave propagation in a nonlinear acoustic metamaterial beam considering third harmonic generation. New Journal of Physics, 2018, 20, 123028.	1.2	33
38	Anomalous wavefront manipulation and broadband sound absorption by metasurfaces with periodic subwavelength modulation. AIP Advances, 2018, 8, .	0.6	1
39	Acoustic cloak based on BÃ©zier scatterers. Scientific Reports, 2018, 8, 12924.	1.6	23
40	A tunable sound-absorbing metamaterial based on coiled-up space. Journal of Applied Physics, 2018, 123, .	1.1	111
41	Band transition and topological interface modes in 1D elastic phononic crystals. Scientific Reports, 2018, 8, 6806.	1.6	102
42	A slim subwavelength absorber based on coupled microslits. Applied Acoustics, 2018, 142, 11-17.	1.7	39
43	Optimization and mechanism of acoustic absorption of Alberich coatings on a steel plate in water. Applied Acoustics, 2018, 140, 183-187.	1.7	45
44	Highly efficient continuous bistable nonlinear energy sink composed of a cantilever beam with partial constrained layer damping. Nonlinear Dynamics, 2017, 87, 2677-2695.	2.7	57
45	A low frequency acoustic insulator by using the acoustic metasurface to a Helmholtz resonator. AIP Advances, 2017, 7, .	0.6	18
46	Beam steering of the acoustic metasurface under a subwavelength periodic modulation. Applied Physics Letters, 2017, 111, .	1.5	13
47	Ultra-low and ultra-broad-band nonlinear acoustic metamaterials. Nature Communications, 2017, 8, 1288.	5.8	184
48	Study on the band gaps of phononic crystal pipes with alternating materials in the radial and axial directions. Extreme Mechanics Letters, 2017, 12, 2-6.	2.0	19
49	A space-coiled acoustic metamaterial with tunable low-frequency sound absorption. Europhysics Letters, 2017, 120, 54001.	0.7	63
50	Ultra-thin smart acoustic metasurface for low-frequency sound insulation. Applied Physics Letters, 2016, 108, .	1.5	56
51	Wave propagation in nonlinear metamaterial multi-atomic chains based on homotopy method. AIP Advances, 2016, 6, .	0.6	44
52	Directionality of wave propagation and attenuation in plates with resonant shunting arrays. Journal of Intelligent Material Systems and Structures, 2016, 27, 28-38.	1.4	15
53	Reduction of the sound transmission of a periodic sandwich plate using the stop band concept. Composite Structures, 2015, 128, 428-436.	3.1	81
54	Flexural wave band gaps in metamaterial beams with membrane-type resonators: theory and experiment. Journal Physics D: Applied Physics, 2015, 48, 435305.	1.3	58

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55	Suppression of vibration and noise radiation in a flexible floating raft system using periodic structures. JVC/Journal of Vibration and Control, 2015, 21, 217-228.	1.5	34
56	Sound transmission loss of metamaterial thin plates with periodic subwavelength arrays of shunted piezoelectric patches. Journal of Sound and Vibration, 2015, 343, 104-120.	2.1	110
57	Analysis and enhancement of flexural wave stop bands in 2D periodic plates. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 1449-1456.	0.9	11
58	Stability of clamped-clamped periodic functionally graded material shells conveying fluid. JVC/Journal of Vibration and Control, 2015, 21, 3034-3046.	1.5	17
59	Stability of fluid-conveying periodic shells on an elastic foundation with external loads. Journal of Fluids and Structures, 2014, 46, 134-148.	1.5	22
60	The beam-mode stability of periodic functionally-graded-material shells conveying fluid. Journal of Sound and Vibration, 2014, 333, 2735-2749.	2.1	43
61	Backing effects on the underwater acoustic absorption of a viscoelastic slab with locally resonant scatterers. Applied Acoustics, 2014, 76, 48-51.	1.7	52
62	Reduction of vibration and noise radiation of an underwater vehicle due to propeller forces using periodically layered isolators. Journal of Sound and Vibration, 2014, 333, 3031-3043.	2.1	54
63	Flexural wave propagation in beams with periodically attached vibration absorbers: Band-gap behavior and band formation mechanisms. Journal of Sound and Vibration, 2013, 332, 867-893.	2.1	315
64	Wave propagation and attenuation in plates with periodic arrays of shunted piezo-patches. Journal of Sound and Vibration, 2013, 332, 1520-1532.	2.1	125
65	Exploration of amphoteric and negative refraction imaging of acoustic sources via active metamaterials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2199-2206.	0.9	25
66	Analysis and enhancement of torsional vibration stopbands in a periodic shaft system. Journal Physics D: Applied Physics, 2013, 46, 145306.	1.3	27
67	On the coupling of resonance and Bragg scattering effects in three-dimensional locally resonant sonic materials. Ultrasonics, 2013, 53, 1332-1343.	2.1	62
68	Control of sound and vibration of fluid-filled cylindrical shells via periodic design and active control. Journal of Sound and Vibration, 2013, 332, 4193-4209.	2.1	47
69	Theoretical and Experimental Study of Locally Resonant and Bragg Band Gaps in Flexural Beams Carrying Periodic Arrays of Beam-Like Resonators. Journal of Vibration and Acoustics, Transactions of the ASME, 2013, 135, .	1.0	148
70	Acoustic cloak/anti-cloak device with realizable passive/active metamaterials. Journal Physics D: Applied Physics, 2012, 45, 285401.	1.3	31
71	Analysis of absorption performances of anechoic layers with steel plate backing. Journal of the Acoustical Society of America, 2012, 132, 69-75.	0.5	63
72	Optimization of locally resonant acoustic metamaterials on underwater sound absorption characteristics. Journal of Sound and Vibration, 2012, 331, 4406-4416.	2.1	139

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73	Sound transmission loss of metamaterial-based thin plates with multiple subwavelength arrays of attached resonators. Journal of Sound and Vibration, 2012, 331, 5408-5423.	2.1	211
74	Control of sound and vibration for cylindrical shells by utilizing a periodic structure of functionally graded material. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3351-3358.	0.9	18
75	Propagation of steady-state vibration in periodic pipes conveying fluid on elastic foundations with external moving loads. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3417-3422.	0.9	19
76	Flexural wave band gaps in locally resonant thin plates with periodically attached springâ€“mass resonators. Journal Physics D: Applied Physics, 2012, 45, 195401.	1.3	330
77	Broadband locally resonant beams containing multiple periodic arrays of attached resonators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1384-1390.	0.9	185
78	Theoretical investigation of the sound attenuation of membrane-type acoustic metamaterials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1489-1494.	0.9	111
79	Control of flexural vibration in a periodic pipe conveying fluid based on a Bragg scattering mechanism coupled with a locally resonant mechanism. , 2011, , .		6
80	Effects of locally resonant modes on underwater sound absorption in viscoelastic materials. Journal of the Acoustical Society of America, 2011, 130, 1201-1208.	0.5	138
81	Formation and coupling of band gaps in a locally resonant elastic system comprising a string with attached resonators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 1485-1491.	0.9	127
82	Vibration attenuations induced by periodic arrays of piezoelectric patches connected by enhanced resonant shunting circuits. Smart Materials and Structures, 2011, 20, 125019.	1.8	62
83	Flexural Vibration Band Gap in a Periodic Fluid-Conveying Pipe System Based on the Timoshenko Beam Theory. Journal of Vibration and Acoustics, Transactions of the ASME, 2011, 133, .	1.0	50
84	Low-frequency acoustic absorption of localized resonances: Experiment and theory. Journal of Applied Physics, 2010, 107, .	1.1	73
85	Acoustic directional radiation operating at the pass band frequency in two-dimensional phononic crystals. Journal Physics D: Applied Physics, 2009, 42, 115417.	1.3	27
86	Triply coupled vibrational band gap in a periodic and nonsymmetrical axially loaded thin-walled Bernoulliâ€“Euler beam including the warping effect. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 3464-3469.	0.9	16
87	The vibrational properties of a periodic composite pipe in 3D space. Journal of Sound and Vibration, 2009, 328, 57-70.	2.1	65
88	Study on the vibration band gap and vibration attenuation property of phononic crystals. Science in China Series D: Earth Sciences, 2008, 51, 85-99.	0.9	29
89	Vibration reduction by using the idea of phononic crystals in a pipe-conveying fluid. Journal of Sound and Vibration, 2008, 318, 193-205.	2.1	189
90	Directional propagation characteristics of flexural wave in two-dimensional periodic grid-like structures. Journal Physics D: Applied Physics, 2008, 41, 135505.	1.3	19

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91	Dynamics and sound attenuation in viscoelastic polymer containing hollow glass microspheres. Journal of Applied Physics, 2007, 101, 123518.	1.1	33
92	Absorptive properties of three-dimensional phononic crystal. Journal of Sound and Vibration, 2007, 303, 185-194.	2.1	56
93	Tri-component phononic crystals for underwater anechoic coatings. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 367, 224-232.	0.9	63
94	Design guidelines for flexural wave attenuation of slender beams with local resonators. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 362, 344-347.	0.9	89
95	The directional propagation characteristics of elastic wave in two-dimensional thin plate phononic crystals. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 364, 323-328.	0.9	21
96	Quasi-One-Dimensional Periodic Structure with Locally Resonant Band Gap. Journal of Applied Mechanics, Transactions ASME, 2006, 73, 167-170.	1.1	104
97	Theoretical and experimental investigation of flexural wave propagation in straight beams with periodic structures: Application to a vibration isolation structure. Journal of Applied Physics, 2005, 97, 114907.	1.1	103
98	Quasi-one-dimensional phononic crystals studied using the improved lumped-mass method: Application to locally resonant beams with flexural wave band gap. Physical Review B, 2005, 71, .	1.1	83
99	One-dimensional phononic crystals with locally resonant structures. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 327, 512-521.	0.9	166
100	Two-Dimensional Locally Resonant Phononic Crystals with Binary Structures. Physical Review Letters, 2004, 93, 154302.	2.9	334