Acoustic cloaking theory

Proceedings of the Royal Society A: Mathematical, Physical an
464, 2411-2434
DOI: 10.1098/rspa.2008.0076

Citation Report

#	Article	IF	Citations
2	Cloak for curvilinearly anisotropic media in conduction. Applied Physics Letters, 2008, 93, .	1.5	193
3	A homogenization route towards square cylindrical acoustic cloaks. New Journal of Physics, 2008, 10, 115030.	1.2	46
4	Isotropic transformation optics: approximate acoustic and quantum cloaking. New Journal of Physics, 2008, 10, 115024.	1.2	86
5	Design and characterization of broadband acoustic composite metamaterials. Physical Review B, 2009, 80, .	1.1	114
6	Acoustic metafluids. Journal of the Acoustical Society of America, 2009, 125, 839-849.	0.5	173
7	Nonsingular two dimensional cloak of arbitrary shape. Applied Physics Letters, 2009, 95, 011107.	1.5	50
8	Three dimensional multilayered acoustic cloak with homogeneous isotropic materials. Applied Physics A: Materials Science and Processing, 2009, 94, 25-30.	1.1	47
9	Sound scattering by anisotropic metafluids based on two-dimensional sonic crystals. Physical Review B, 2009, 79, .	1.1	18
10	A numerical method for designing acoustic cloak with arbitrary shapes. Computational Materials Science, 2009, 46, 708-712.	1.4	32
11	Invisibility cloak with a twin cavity. Optics Express, 2009, 17, 8614.	1.7	16
12	Broadband exterior cloaking. Optics Express, 2009, 17, 14800.	1.7	98
13	Ultrabroadband Elastic Cloaking in Thin Plates. Physical Review Letters, 2009, 103, 024301.	2.9	384
14	Achieving control of in-plane elastic waves. Applied Physics Letters, 2009, 94, .	1.5	258
15	Acoustic superscatterer and its multilayer realization. Applied Physics A: Materials Science and Processing, 2010, 99, 843-847.	1.1	16
16	Transformation method and wave control. Acta Mechanica Sinica/Lixue Xuebao, 2010, 26, 889-898.	1.5	19
17	Acoustic band gaps in arrays of neutral inclusions. Journal of Computational and Applied Mathematics, 2010, 234, 1962-1969.	1.1	9
18	Stress-wave energy management through material anisotropy. Wave Motion, 2010, 47, 519-536.	1.0	35
19	Acoustic cloaking transformations from attainable material properties. New Journal of Physics, 2010, 12, 073014.	1.2	52

#	Article	IF	Citations
20	Neutral shells and their applications in the design of electromagnetic shields. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 3659-3677.	1.0	12
21	Impedance acoustic cloaking. New Journal of Physics, 2010, 12, 043049.	1.2	22
22	Acoustic metafluids made from three acoustic fluids. Journal of the Acoustical Society of America, 2010, 128, 1606-1616.	0.5	26
23	An Active Acoustic Metamaterial With Tunable Effective Density. Journal of Vibration and Acoustics, Transactions of the ASME, 2010, 132, .	1.0	55
24	Acoustic cloaking and transformation acoustics. Journal Physics D: Applied Physics, 2010, 43, 113001.	1.3	296
25	Broadband cloaking and mirages with flying carpets. Optics Express, 2010, 18, 11537.	1.7	9
26	On Acoustic Cloaking Devices by Transformation Media and Their Simulation. SIAM Journal on Applied Mathematics, 2010, 70, 2996-3021.	0.8	9
27	Interaction of a nondiffracting high- order bessel (vortex) beam of fractional type Î± and integer order m with a rigid sphere: linear acoustic scattering and net instantaneous axial force. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 395-404.	1.7	26
28	Acoustic cloaking using layered pentamode materials. Journal of the Acoustical Society of America, 2010, 127, 2856-2864.	0.5	58
29	The colours of cloaks. Journal of Optics (United Kingdom), 2011, 13, 024014.	1.0	53
30	Spin wave acoustics of antiferromagnetic structures as magnetoacoustic metamaterials. Physics-Uspekhi, 2011, 54, 573-604.	0.8	13
31	Cancellation of acoustic scattering from an elastic sphere. Journal of the Acoustical Society of America, 2011, 129, 1355-1365.	0.5	74
32	Metamaterials with conformational nonlinearity. Scientific Reports, 2011, 1, 138.	1.6	49
33	Experimental Acoustic Ground Cloak in Air. Physical Review Letters, 2011, 106, 253901.	2.9	374
34	Fluid Flow Control with Transformation Media. Physical Review Letters, 2011, 107, 074501.	2.9	85
36	Plasmonic cloaking and scattering cancelation for electromagnetic and acoustic waves. Wave Motion, 2011, 48, 468-482.	1.0	49
37	Finite-element modeling of an acoustic cloak forÂthree-dimensional flexible shells with structural excitation. Applied Physics A: Materials Science and Processing, 2011, 103, 641-644.	1.1	5
38	Broadband optimization of a pentamode-layered spherical acoustic waveguide. Wave Motion, 2011, 48, 505-514.	1.0	23

#	Article	IF	Citations
39	Elastic cloaking theory. Wave Motion, 2011, 48, 525-538.	1.0	200
40	Numerical analysis of three-dimensional acoustic cloaks and carpets. Wave Motion, 2011, 48, 483-496.	1.0	29
41	Broadband acoustic cloaks based on the homogenization of layered materials. Wave Motion, 2011, 48, 497-504.	1.0	25
42	Non-uniqueness of time-domain reflection from 3D planar elastic layers. Wave Motion, 2011, 48, 539-549.	1.0	4
43	Acoustic planar hyperlens via transformation acoustics. Journal Physics D: Applied Physics, 2011, 44, 125402.	1.3	7
44	Homogeneous and compact acoustic ground cloaks. Physical Review B, 2011, 83, .	1.1	55
45	Dirac cones at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mover accent="true"><mml:mi>k</mml:mi><mml:mo>âƒ—</mml:mo></mml:mover><mml:mo>=</mml:mo><mml:mn>0</mml:mn></mml:mr phononic crystals. Physical Review B, 2011, 84, .	1.1	84
46	Approximate method for controlling solid elastic waves by transformation media. Physical Review B, 2011, 84, .	1.1	52
47	Application of the method of asymptotic homogenization to an acoustic metafluid. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 3318-3331.	1.0	7
48	The effect of shear on acoustic cloaking. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 2291-2309.	1.0	5
49	Partial elastodynamic cloaking by means of fiber-reinforced composites. Inverse Problems, 2011, 27, 045010.	1.0	10
50	On Approximate Electromagnetic Cloaking by Transformation Media. SIAM Journal on Applied Mathematics, 2011, 71, 218-241.	0.8	33
51	Cloaking of heat flux and temperature. , 2011, , .		1
52	Special transformations for pentamode acoustic cloaking. Journal of the Acoustical Society of America, 2012, 132, 2932-2941.	0.5	71
53	Transformation ray method: Controlling high frequency elastic waves (L). Journal of the Acoustical Society of America, 2012, 132, 2942-2945.	0.5	10
54	Acoustic metamaterials with circular sector cavities and programmable densities. Journal of the Acoustical Society of America, 2012, 132, 2857-2865.	0.5	8
55	Nonlinear pre-stress for cloaking from antiplane elastic waves. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 563-580.	1.0	68
56	Elastic metamaterials with local resonances: an overview. Theoretical and Applied Mechanics Letters, 2012, 2, 041001.	1.3	105

#	Article	IF	Citations
57	Comment on â€œDesign of acoustic devices with isotropic material via conformal transformationâ€• [Appl. Phys. Lett. 97, 044101 (2010)]. Applied Physics Letters, 2012, 100, 066101.	1.5	6
58	Hybrid inertial method for broadband scattering reduction. Applied Physics Letters, 2012, 100, .	1.5	9
59	Negative refraction induced acoustic concentrator and the effects of scattering cancellation, imaging, and mirage. Physical Review B, 2012, 86, .	1.1	19
60	Plasmonic-type acoustic cloak made of a bilaminate shell. Physical Review B, 2012, 86, .	1.1	40
61	Employing pre-stress to generate finite cloaks for antiplane elastic waves. Applied Physics Letters, 2012, 100, .	1.5	63
62	Broadband cloaking of bending waves via homogenization of multiply perforated radially symmetric and isotropic thin elastic plates. Physical Review B, 2012, 85, .	1.1	58
63	Controllable acoustic media having anisotropic mass density and tunable speed of sound. Applied Physics Letters, 2012, 101, 061916.	1.5	6
64	Approximation Approach of Realizing an Arbitrarily Shaped Acoustic Cloak with Homogeneous Isotropic Materials. Chinese Physics Letters, 2012, 29, 114302.	1.3	3
65	Acoustic cloak/anti-cloak device with realizable passive/active metamaterials. Journal Physics D: Applied Physics, 2012, 45, 285401.	1.3	31
66	Enhanced control of light and sound trajectories with three-dimensional gradient index lenses. New Journal of Physics, 2012, 14, 035011.	1.2	37
67	Enhanced approximate cloaking by SH and FSH lining. Inverse Problems, 2012, 28, 075011.	1.0	15
68	Homogeneous Material Constructed Acoustic Cloak Based on Coordinate Transformation. Journal of Vibration and Acoustics, Transactions of the ASME, 2012, 134, .	1.0	12
69	Magnetoelastic metamaterials. Nature Materials, 2012, 11, 30-33.	13.3	229
70	Acoustic cloak with duplex communication ability constructed by multilayered homogeneous isotropic materials. Applied Physics A: Materials Science and Processing, 2012, 109, 913-919.	1.1	8
71	Determining the full transformation relations in the transformation method. Applied Physics A: Materials Science and Processing, 2012, 109, 971-977.	1.1	3
72	Transformation thermodynamics: cloaking and concentrating heat flux. Optics Express, 2012, 20, 8207.	1.7	516
73	Isotropic-medium three-dimensional cloaks for acoustic and electromagnetic waves. Journal of Applied Physics, 2012, 111, .	1.1	16
74	Hyperelastic cloaking theory: transformation elasticity with pre-stressed solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 2881-2903.	1.0	67

#	Article	IF	Citations
75	High Frequency Scattering by a Classically Invisible Body. SIAM Journal on Applied Mathematics, 2012, 72, 646-669.	0.8	3
76	An integral equation approach to acoustic cloaking. Journal of Sound and Vibration, 2012, 331, 4629-4643.	2.1	14
77	Phonon band structures of three-dimensional pentamode metamaterials. Physical Review B, 2012, 86, .	1.1	93
78	On the practicability of pentamode mechanical metamaterials. Applied Physics Letters, 2012, 100, .	1.5	405
79	Analysis of Imperfect Acoustic Cloaking Resonances. Chinese Physics Letters, 2012, 29, 124301.	1.3	4
80	Scaling of membrane-type locally resonant acoustic metamaterial arrays. Journal of the Acoustical Society of America, 2012, 132, 2784-2792.	0.5	104
81	Longitudinal wave band gaps in metamaterial-based elastic rods containing multi-degree-of-freedom resonators. New Journal of Physics, 2012, 14, 033042.	1.2	172
82	Elastic shells with high-contrast material properties as acoustic metamaterial components. Physical Review B, 2012, 85, .	1.1	47
83	Frequency-selective surface acoustic invisibility for three-dimensional immersed objects. Physical Review B, 2012, 86, .	1.1	19
84	Elastic wave omnidirectional absorbers designed by transformation method. Applied Physics Letters, 2012, 101, 054102.	1.5	24
85	Overcoming Mutual Blockage Between Neighboring Dipole Antennas Using a Low-Profile Patterned Metasurface. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1414-1417.	2.4	145
86	Transformation Optics. Advances in Imaging and Electron Physics, 2012, 171, 195-295.	0.1	3
87	Tailored 3D Mechanical Metamaterials Made by Dipâ€in Directâ€Laserâ€Writing Optical Lithography. Advanced Materials, 2012, 24, 2710-2714.	11.1	560
88	A feasible approach to achieve acoustic carpet cloak in air. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 493-496.	0.9	11
89	Scientific principles of acoustic stealth. Doklady Physics, 2012, 57, 18-22.	0.2	8
90	Nonlinear response via intrinsic rotation in metamaterials. Physical Review B, 2013, 87, .	1.1	36
91	A Matlab Edge Element Code for Metamaterials. Springer Series in Computational Mathematics, 2013, , 195-214.	0.1	0
93	Perfectly Matched Layers. Springer Series in Computational Mathematics, 2013, , 215-240.	0.1	0

#	Article	IF	Citations
94	Acoustic Cloaking in a Mean Flow. , 2013, , .		0
95	Introduction to Metamaterials. Springer Series in Computational Mathematics, 2013, , 1-18.	0.1	0
96	Introduction to Finite Element Methods. Springer Series in Computational Mathematics, 2013, , 19-51.	0.1	3
97	Time-Domain Finite Element Methods for Metamaterials. Springer Series in Computational Mathematics, 2013, , 53-125.	0.1	4
98	Superconvergence Analysis for Metamaterials. Springer Series in Computational Mathematics, 2013, , 151-171.	0.1	0
99	Simulations of Wave Propagation in Metamaterials. Springer Series in Computational Mathematics, 2013, , 241-283.	0.1	0
100	A Posteriori Error Estimation. Springer Series in Computational Mathematics, 2013, , 173-193.	0.1	0
101	Regular scattering patterns from near-cloaking devices and their implications for invisibility cloaking. Inverse Problems, 2013, 29, 045005.	1.0	10
102	Heat flux and temperature field cloaks for arbitrarily shaped objects. Journal Physics D: Applied Physics, 2013, 46, 305102.	1.3	43
103	Demonstration of an ultralow profile cloak for scattering suppression of a finite-length rod in free space. New Journal of Physics, 2013, 15, 033037.	1.2	113
104	Metamaterials beyond electromagnetism. Reports on Progress in Physics, 2013, 76, 126501.	8.1	378
105	Making waves round a structured cloak: lattices, negative refraction and fringes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130218.	1.0	30
106	A derivation for the acoustic material parameters in transformation domains. Journal of Sound and Vibration, 2013, 332, 766-779.	2.1	4
107	Transformation optics and cloaking. Contemporary Physics, 2013, 54, 273-286.	0.8	34
108	Constraint condition on transformation relation for generalized acoustics. Wave Motion, 2013, 50, 170-179.	1.0	11
109	An experimental acoustic cloak for generating virtual images. Journal of Applied Physics, 2013, 113, .	1.1	21
110	Negative refraction of acoustic waves using a foam-like metallic structure. Applied Physics Letters, 2013, 102, .	1.5	92
111	Dynamic Mass Density and Acoustic Metamaterials. Springer Series in Solid-state Sciences, 2013, , 159-199.	0.3	16

#	Article	IF	Citations
112	Transformation Elastodynamics and Active Exterior Acoustic Cloaking. Springer Series in Materials Science, 2013, , 289-318.	0.4	13
113	Acoustic Cloaking with Plasmonic Shells. Springer Series in Materials Science, 2013, , 241-265.	0.4	2
114	Transformation Acoustics. Springer Series in Materials Science, 2013, , 197-218.	0.4	8
115	Complete characterization of the macroscopic deformations of periodic unimode metamaterials of rigid bars and pivots. Journal of the Mechanics and Physics of Solids, 2013, 61, 1543-1560.	2.3	112
116	Experiments on Transformation Thermodynamics: Molding the Flow of Heat. Physical Review Letters, 2013, 110, 195901.	2.9	498
117	Stable methods to solve the impedance matrix for radially inhomogeneous cylindrically anisotropic structures. Journal of Sound and Vibration, 2013, 332, 2520-2531.	2.1	10
118	On near-cloak in acoustic scattering. Journal of Differential Equations, 2013, 254, 1230-1246.	1.1	21
119	Enhanced near-cloak by FSH lining. Journal Des Mathematiques Pures Et Appliquees, 2013, 99, 17-42.	0.8	34
120	On anisotropic versions of three-dimensional pentamode metamaterials. New Journal of Physics, 2013, 15, 023029.	1.2	91
121	Fluid-structure effects of cloaking a submerged spherical shell. Journal of the Acoustical Society of America, 2013, 134, 1908-1919.	0.5	3
122	Acoustic and Elastic Cloaking Using Non-Singular Transformation. , 2013, , .		0
123	Grid metastructures for ultrabroadband acoustic cloaking. AIP Advances, 2013, 3, 092133.	0.6	0
124	Controlling chloride ions diffusion in concrete. Scientific Reports, 2013, 3, 3359.	1.6	59
125	Engineering anisotropy to amplify a long-wavelength field without a limit. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130246.	1.0	1
126	Tunable active acoustic metamaterials. Physical Review B, 2013, 88, .	1.1	109
127	Highly Anisotropic Elements for Acoustic Pentamode Applications. Physical Review Letters, 2013, 111, 024302.	2.9	96
128	Elastic metamaterials with inertial locally resonant structures: Application to lensing and localization. Physical Review B, 2013, 87, .	1.1	170
129	Elastic measurements on macroscopic three-dimensional pentamode metamaterials. Applied Physics Letters, 2013, 103, .	1.5	91

#	Article	IF	Citations
130	A new type of artificial structure to achieve broadband omnidirectional acoustic absorption. AIP Advances, 2013, 3, .	0.6	12
131	Furtive quantum sensing using matter-wave cloaks. Physical Review B, 2013, 87, .	1.1	18
132	Grid metamaterials for ultrabroadband acoustic cloaking. , 2013, , .		0
133	Comparative study of potential pentamodal metamaterials inspired by Bravais lattices. Smart Materials and Structures, 2013, 22, 115013.	1.8	38
134	Robustness of Acoustic Scattering Cancellation to Parameter Variations. Sustainability, 2014, 6, 4416-4425.	1.6	7
135	Transformation elastodynamics and cloaking for flexural waves. Journal of the Mechanics and Physics of Solids, 2014, 72, 131-143.	2.3	81
136	Tunable acoustic metamaterial elements, neutral inclusions, transparency and causality. , 2014, , .		1
137	Biharmonic split ring resonator metamaterial: Artificially dispersive effective density in thin periodically perforated plates. Europhysics Letters, 2014, 107, 44002.	0.7	7
138	Stability estimates in the problem of cloaking material bodies for Maxwellâ€™s equations. Computational Mathematics and Mathematical Physics, 2014, 54, 1788-1803.	0.2	23
139	Research on Layered Design of Ring-Shaped Acoustic Cloaking Using Bimode Metamaterial. Applied Mechanics and Materials, 2014, 687-691, 4399-4404.	0.2	3
140	Approach to acoustic cloaking in rarefied gases. , 2014, , .		0
141	Transformation cloaking and radial approximations for flexural waves in elastic plates. New Journal of Physics, 2014, 16, 093020.	1.2	36
142	Optimized cloaking design in moving fluid based on the scattering analysis method. , 2014, , .		0
143	Perfect cloaking of ellipsoidal regions. Quarterly of Applied Mathematics, 2014, 72, 665-671.	0.5	1
144	Pentamode Metamaterials with Independently Tailored Bulk Modulus and Mass Density. Physical Review Applied, 2014, 2, .	1.5	108
145	Combinatorial approach to identify electronically cloaked hollow nanoparticles. Physical Review B, 2014, 90, .	1.1	7
146	Independent Manipulation of Heat and Electrical Current via Bifunctional Metamaterials. Physical Review X, 2014, 4, .	2.8	48
147	Tunable cylindrical shell as an element in acoustic metamaterial. Journal of the Acoustical Society of America, 2014, 136, 1601-1609.	0.5	14

#	Article	IF	Citations
148	Manipulation of elastic waves by zero index metamaterials. Journal of Applied Physics, 2014, 116, 204501.	1.1	9
149	Dynamics of Phononic Materials and Structures: Historical Origins, Recent Progress, and Future Outlook. Applied Mechanics Reviews, 2014, 66, .	4.5	1,141
150	On one class of theoretically constructed isotropic single negative continuous acoustic metamaterials. , 2014, , .		2
151	On the limit and applicability of dynamic homogenization. Wave Motion, 2014, 51, 1045-1054.	1.0	46
152	Resonant waves in elastic structured media: Dynamic homogenisation versus Greenâ€™s functions. International Journal of Solids and Structures, 2014, 51, 2254-2260.	1.3	16
153	Nearly cloaking the full Maxwell equations: Cloaking active contents with general conducting layers. Journal Des Mathematiques Pures Et Appliquees, 2014, 101, 716-733.	0.8	40
154	Analysis of an approximate cloaking for acoustic scattering problems in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msup><mml:mrow><mml:mi mathvariant="double-struck">R</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msup></mml:mrow><mml:mo><</mml:mo> Applied Mathematics and Computation, 2014, 232, 117-131.	1.4	1
155	Cloaks, editors, and bubbles: applications of spacetime transformation theory. Annalen Der Physik, 2014, 526, 51-62.	0.9	25
156	Analysis of scattering from an acoustic cloak in a moving fluid. Journal of the Acoustical Society of America, 2014, 135, 2571-2580.	0.5	22
157	Controlling solid elastic waves with spherical cloaks. Applied Physics Letters, 2014, 105, .	1.5	43
158	Design of a broadband ultra-large area acoustic cloak based on a fluid medium. Journal of Applied Physics, 2014, 116, .	1.1	10
159	Cloaking of an acoustic sensor using scattering cancellation. Applied Physics Letters, 2014, 105, .	1.5	33
160	Study on Design Method of the Microstructure for Layered and Ring-Shaped Acoustic Cloaking Based on Bimode Metamaterial. Applied Mechanics and Materials, 0, 684, 219-227.	0.2	2
161	Applications of Mathematics and Informatics in Science and Engineering. Springer Optimization and Its Applications, 2014, , .	0.6	0
162	Nonlinear elastic effects in graphite/epoxy: An analytical and numerical prediction of energy flux deviation. Wave Motion, 2014, 51, 1138-1148.	1.0	2
163	Cloaking via heating: Approach to acoustic cloaking of an actuated boundary in a rarefied gas. Physics of Fluids, 2014, 26, .	1.6	17
164	Mechanics of elastic networks. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140522.	1.0	40
165	Experimental observation of heat wave cloak. Modern Physics Letters B, 2014, 28, 1450098.	1.0	8

#	Article	IF	Citations
166	Low-frequency spatial wave manipulation via phononic crystals with relaxed cell symmetry. Journal of Applied Physics, 2014, 115, .	1.1	30
167	Transformation devices: Event carpets in space and space-time. Physical Review A, 2014, 89, .	1.0	15
168	Nearly Cloaking the Electromagnetic Fields. SIAM Journal on Applied Mathematics, 2014, 74, 724-742.	0.8	20
169	Enhanced approximate cloaking by optimal change of variables. Inverse Problems, 2014, 30, 035014.	1.0	9
170	Towards omnidirectional, large scale, full polarization, and broadband practical invisibility cloaks: challenges and progress. EPJ Applied Metamaterials, 2014, 1, 7.	0.8	6
171	Interior acoustic cloak. AIP Advances, 2014, 4, .	0.6	3
172	Acoustic invisibility in turbulent fluids by optimised cloaking. Journal of Fluid Mechanics, 2014, 749, 460-477.	1.4	28
173	Invisibility and Cloaking: Origins, Present, and Future Perspectives. Physical Review Applied, 2015, 4, .	1.5	149
174	Elastic Waves Scattering without Conversion in Metamaterials with Simultaneous Zero Indices for Longitudinal and Transverse Waves. Physical Review Letters, 2015, 115, 175502.	2.9	45
175	Vibrant times for mechanical metamaterials. MRS Communications, 2015, 5, 453-462.	0.8	234
176	Latticed pentamode acoustic cloak. Scientific Reports, 2015, 5, 15745.	1.6	106
177	Experimental Demonstration of Underwater Acoustic Scattering Cancellation. Scientific Reports, 2015, 5, 13175.	1.6	26
178	Acoustically induced transparency using Fano resonant periodic arrays. Journal of Applied Physics, 2015, 118, .	1.1	43
179	Acoustic scattering cancellation of irregular objects surrounded by spherical layers in the resonant regime. Journal of Applied Physics, 2015, 118, .	1.1	6
180	Detecting the existence of an invisibility cloak using temporal steering. Scientific Reports, 2015, 5, 15571.	1.6	3
181	Causality and passivity in elastodynamics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150256.	1.0	14
182	Disentangling longitudinal and shear elastic waves by neo-Hookean soft devices. Applied Physics Letters, 2015, 106, .	1.5	28
183	Manipulation of the propagation of out-of-plane shear waves. International Journal of Solids and Structures, 2015, 69-70, 383-391.	1.3	5

#	Article	IF	Citations
184	Elastic metamaterials and dynamic homogenization: a review. International Journal of Smart and Nano Materials, 2015, 6, 41-60.	2.0	104
185	Cylindrical Thermal Cloak Based on the Path Design of Heat Flux. Journal of Heat Transfer, 2015, 137, .	1.2	18
186	Coupled Electromagnetic and Elastic Dynamics in Metamaterials. Springer Series in Materials Science, 2015, , 59-87.	0.4	0
187	Singular perturbations and cloaking illusions for elastic waves in membranes and Kirchhoff plates. International Journal of Solids and Structures, 2015, 69-70, 498-506.	1.3	17
188	Pentamode metamaterials with asymmetric double-cone elements. Journal Physics D: Applied Physics, 2015, 48, 175103.	1.3	26
189	Acoustic integrated extinction. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150008.	1.0	16
190	Antiplane wave scattering from a cylindrical cavity in pre-stressed nonlinear elastic media. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150450.	1.0	6
191	Characterization of an acoustic spherical cloak. Inverse Problems, 2015, 31, 035001.	1.0	1
192	Numerical and experimental study of an invisibility carpet in a water channel. Physical Review E, 2015, 91, 023010.	0.8	22
193	Regularized Transformation-Optics Cloaking for the Helmholtz Equation: From Partial Cloak to Full Cloak. Communications in Mathematical Physics, 2015, 335, 671-712.	1.0	17
194	Experiments on cloaking in optics, thermodynamics and mechanics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140357.	1.6	27
195	Splitting of acoustic energy by zero index metamaterials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 2147-2149.	0.9	9
196	Acoustic cloaking by extraordinary sound transmission. Journal of Applied Physics, 2015, 117, .	1.1	17
197	A unidirectional acoustic cloak for multilayered background media with homogeneous metamaterials. Journal Physics D: Applied Physics, 2015, 48, 305502.	1.3	29
198	Thermal invisibility based on scattering cancellation and mantle cloaking. Scientific Reports, 2015, 5, 9876.	1.6	72
199	Willis elastodynamic homogenization theory revisited for periodic media. Journal of the Mechanics and Physics of Solids, 2015, 77, 158-178.	2.3	84
200	Directional cloaking of flexural waves in a plate with a locally resonant metamaterial. Journal of the Acoustical Society of America, 2015, 137, 1783-1789.	0.5	62
201	Mechanical metamaterials with anisotropic and negative effective massâ€density tensor made from one constituent material. Physica Status Solidi (B): Basic Research, 2015, 252, 1671-1674.	0.7	37

#	Article	IF	Citations
202	Design and assessment of an acoustic ground cloak with layered structure. International Journal of Modern Physics B, 2015, 29, 1550191.	1.0	9
203	Transformation Method to Control Shear Horizontal Waves. International Journal of Applied Mechanics, 2015, 07, 1550049.	1.3	2
204	Binary optimization of plasmonic nano bi-domes to design an optical clocking. Optical and Quantum Electronics, 2015, 47, 3589-3597.	1.5	4
205	Transformational cloaking from seismic surface waves by micropolar metamaterials with finite couple stiffness. Wave Motion, 2015, 58, 53-67.	1.0	16
206	Tunable acoustic waveguide based on vibro-acoustic metamaterials with shunted piezoelectric unit cells. Smart Materials and Structures, 2015, 24, 105018.	1.8	12
207	Omnidirectional two-dimensional acoustic cloak by axisymmetric cylindrical lattices. Wave Motion, 2015, 54, 157-169.	1.0	7
208	Theoretical and Numerical Modeling of Acoustic Metamaterials for Aeroacoustic Applications. Aerospace, 2016, 3, 15.	1.1	12
209	Sustainable Acoustic Metasurfaces for Sound Control. Sustainability, 2016, 8, 107.	1.6	10
210	Chapter 10 Experiments on Cloaking in Electromagnetism, Mechanics, and Thermodynamics. , 2016, , 335-368.		1
211	Chapter 11 Transformation Multiphysics. , 2016, , 369-400.		0
212	Design of arbitrary shaped pentamode acoustic cloak based on quasi-symmetric mapping gradient algorithm. Journal of the Acoustical Society of America, 2016, 140, EL405-EL409.	0.5	23
213	Pentamode metamaterials with tunable acoustics band gaps and large figures of merit. Journal of Applied Physics, 2016, 120, 024903.	1.1	13
214	Acoustic metamaterials. Physics Today, 2016, 69, 42-48.	0.3	98
215	Acoustic scattering from inhomogeneous spheres with impenetrable cores. Journal of Applied Physics, 2016, 119, .	1.1	2
216	Elastodynamic cloaking and field enhancement for soft spheres. Journal Physics D: Applied Physics, 2016, 49, 445101.	1.3	8
217	Linear transformation method to control flexural waves in thin plates. Journal of the Acoustical Society of America, 2016, 140, 1154-1161.	0.5	7
218	Anisotropic acoustic metafluid for underwater operation. Journal of the Acoustical Society of America, 2016, 139, 3325-3331.	0.5	25
219	A broadband polygonal cloak for acoustic wave designed with linear coordinate transformation. Journal of the Acoustical Society of America, 2016, 140, 95-101.	0.5	21

#	Article	IF	Citations
220	Time domain characteristics of wave motion in dispersive and anisotropic continuum acoustic metamaterials. Journal of the Acoustical Society of America, 2016, 140, 4276-4287.	0.5	3
221	Achieving acoustic cloak by using compressible background flow. Chinese Physics B, 2016, 25, 084702.	0.7	1
222	A high transmission broadband gradient index lens using elastic shell acoustic metamaterial elements. Journal of the Acoustical Society of America, 2016, 139, 3357-3364.	0.5	16
223	Scattering reduction of an acoustically hard cylinder covered with layered pentamode metamaterials. Journal of the Acoustical Society of America, 2016, 139, 3404-3411.	0.5	4
224	Generalized metamaterials: Definitions and taxonomy. Journal of the Acoustical Society of America, 2016, 139, 3412-3418.	0.5	5
225	Cloaking a vertical cylinder via homogenization in the mild-slope equation. Journal of Fluid Mechanics, 2016, 796, .	1.4	20
226	Analysis and optimization in problems of cloaking of material bodies for the Maxwell equations. Differential Equations, 2016, 52, 361-372.	0.1	21
227	On asymptotic elastodynamic homogenization approaches for periodic media. Journal of the Mechanics and Physics of Solids, 2016, 88, 274-290.	2.3	29
228	Preserving omnidirectionality in optimized asymmetric transformation optics designs. Journal of Optics (United Kingdom), 2016, 18, 044018.	1.0	5
229	Three forms of omnidirectional acoustic invisibility engineered using fast elastodynamic transfer-matrix method. Journal of Optics (United Kingdom), 2016, 18, 044025.	1.0	2
230	Pentamodal behaviors and acoustic bandgaps of asymmetric pentamode elastic metamaterials. International Journal of Modern Physics B, 2016, 30, 1650118.	1.0	4
231	Analytic materials. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160613.	1.0	2
232	Controlling sound with acoustic metamaterials. Nature Reviews Materials, 2016, 1, .	23.3	1,328
233	Pentamodal property and acoustic band gaps of pentamode metamaterials with different cross-section shapes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1334-1338.	0.9	47
234	Non-singular acoustic cloak derived by the ray tracing method with rotationally symmetric transformations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150348.	1.0	4
235	Directional decomposition of the acoustic wave equation for fluids and metafluids in spherical geometries, with application to transformational acoustics. Inverse Problems, 2016, 32, 035005.	1.0	0
236	Single slit diffraction: From optics to elasticity. Wave Motion, 2016, 60, 35-45.	1.0	1
237	Broadband omnidirectional absorption for linear liquid surface wave. Wave Motion, 2016, 60, 1-7.	1.0	0

#	Article	IF	Citations
238	Design and experimental verification of a water-like pentamode material. Applied Physics Letters, 2017, 110, .	1.5	40
239	Acoustic wave science realized by metamaterials. Nano Convergence, 2017, 4, 3.	6.3	43
240	Neutral shielding and cloaking of magnetic fields using isotropic media. Journal of Physics Condensed Matter, 2017, 29, 035801.	0.7	3
241	Curvature, metric and parametrization of origami tessellations: theory and application to the eggbox pattern. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160705.	1.0	30
242	New degrees of freedom in nonlinear metamaterials. Physica Status Solidi (B): Basic Research, 2017, 254, 1600462.	0.7	15
243	Isotropic transformation acoustics and applications. Proceedings of SPIE, 2017, , .	0.8	2
244	Design and demonstration of an underwater acoustic carpet cloak. Scientific Reports, 2017, 7, 705.	1.6	52
245	Evanescent wave boundary layers in metamaterials and sidestepping them through a variational approach. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20160765.	1.0	23
246	Broadband focusing of underwater sound using a transparent pentamode lens. Journal of the Acoustical Society of America, 2017, 141, 4408-4417.	0.5	85
247	Additive Manufacturing-Oriented Design of Graded Lattice Structures Through Explicit Topology Optimization. Journal of Applied Mechanics, Transactions ASME, 2017, 84, .	1.1	112
248	Sound scattering of double concentric elastic spherical shell with multilayered medium cloak. , 2017, , .		3
249	Neutral inclusions for diffusive acoustic fields. Journal of Sound and Vibration, 2017, 395, 80-89.	2.1	0
250	Comparative study of the pentamodal property of four potential pentamode microstructures. Journal of Applied Physics, 2017, 121, 125110.	1.1	9
251	Computational material design for acoustic cloaking. International Journal for Numerical Methods in Engineering, 2017, 112, 1353-1380.	1.5	25
252	Continuous gradient and discretized layered designs for control of stress wave scattering. Mechanics of Materials, 2017, 109, 18-25.	1.7	4
253	Two-dimensional arbitrarily shaped acoustic cloaks composed of homogeneous parts. Journal of Applied Physics, 2017, 122, .	1.1	7
254	Optimization method in problems of acoustic cloaking of material bodies. Computational Mathematics and Mathematical Physics, 2017, 57, 1459-1474.	0.2	4
255	Broadband dual-anisotropic solid metamaterials. Scientific Reports, 2017, 7, 13197.	1.6	14

#	Article	IF	Citations
256	A Review on Acoustic Black-Holes (ABH) and the Experimental and Numerical Study of ABH-Featured 3D Printed Beams. International Journal of Applied Mechanics, 2017, 09, 1750078.	1.3	41
257	Longitudinal elastic wave control by pre-deforming semi-linear materials. Journal of the Acoustical Society of America, 2017, 142, 1229-1235.	0.5	4
258	Self-controlled wave propagation in hyperelastic media. Scientific Reports, 2017, 7, 7581.	1.6	4
259	Broadband sound pressure enhancement in passive metafluids. Physical Review B, 2017, 96, .	1.1	11
260	Composite pentamode metamaterials with low frequency locally resonant characteristics. Journal of Applied Physics, 2017, 122, .	1.1	19
261	Effect of compressibility and non-uniformity in flow on the scattering pattern of acoustic cloak. Scientific Reports, 2017, 7, 2125.	1.6	19
262	The phononic band gaps of Bragg scattering and locally resonant pentamode metamaterials. Journal Physics D: Applied Physics, 2017, 50, 415105.	1.3	18
266	Connection overlap deviation analysis of pentamode metamaterials. Journal Physics D: Applied Physics, 2017, 50, 485102.	1.3	4
267	New Trends Toward Locally-Resonant Metamaterials at the Mesoscopic Scale. World Scientific Series in Nanoscience and Nanotechnology, 2017, , 251-299.	0.1	2
268	Hyperelastic Cloaking: Transformation Elasticity Using Pre-stressed Solids. World Scientific Series in Nanoscience and Nanotechnology, 2017, , 481-551.	0.1	0
269	Acoustic Metamaterials with Conical Dispersions. World Scientific Series in Nanoscience and Nanotechnology, 2017, , 553-597.	0.1	1
270	Investigation of interaction of shear horizontal surface acoustic wave with controlled electroinduced domain structure. Japanese Journal of Applied Physics, 2017, 56, 07JD07.	0.8	1
271	Broadband solid cloak for underwater acoustics. Physical Review B, 2017, 95, .	1.1	109
272	Broadband cloaking of flexural waves. Physical Review E, 2017, 95, 063002.	0.8	24
273	High-transmission acoustic self-focusing and directional cloaking in a graded perforated metal slab. Scientific Reports, 2017, 7, 4368.	1.6	25
274	Nearly non-scattering electromagnetic wave set and its application. Zeitschrift Fur Angewandte Mathematik Und Physik, 2017, 68, 1.	0.7	7
275	Evolution of Surface Acoustic Waves in an Optical Microfiber. IEEE Journal of Quantum Electronics, 2017, 53, 1-8.	1.0	4
276	Cloaking and anamorphism for light and mass diffusion. Journal of Optics (United Kingdom), 2017, 19, 103002.	1.0	6

#	Article	IF	Citations
277	Transient experimental demonstration of an elliptical thermal camouflage device. Scientific Reports, 2017, 7, 16671.	1.6	7
278	Nearly cloaking for the elasticity system with residual stress. Asymptotic Analysis, 2017, 106, 1-23.	0.2	2
279	On the Use of the Analogue Transformation Acoustics in Aeroacoustics. Mathematical Problems in Engineering, 2017, 2017, 1-16.	0.6	7
280	Near optimal pentamodes as a tool for guiding stress while minimizing compliance in 3d-printed materials: A complete solution to the weak G-closure problem for 3d-printed materials. Journal of the Mechanics and Physics of Solids, 2018, 114, 194-208.	2.3	5
281	Design of continuously graded elastic acoustic cloaks. Journal of the Acoustical Society of America, 2018, 143, EL31-EL36.	0.5	7
282	A perfect Fresnel acoustic reflector implemented by a Fano-resonant metascreen. Journal of Applied Physics, 2018, 123, .	1.1	27
283	Ultrawide bandgap pentamode metamaterials with an asymmetric double-cone outside profile. Journal Physics D: Applied Physics, 2018, 51, 125103.	1.3	8
284	Negative stiffness honeycombs as tunable elastic metamaterials. Journal of Applied Physics, 2018, 123, .	1.1	74
285	Generalized transformation design: Metrics, speeds, and diffusion. Wave Motion, 2018, 77, 91-106.	1.0	5
286	Breaking the barriers: advances in acoustic functional materials. National Science Review, 2018, 5, 159-182.	4.6	153
287	Designs for thermal harvesting with nonlinear coordinate transformation. AIP Advances, 2018, 8, 045316.	0.6	6
288	Acoustically sticky topographic metasurfaces for underwater sound absorption. Journal of the Acoustical Society of America, 2018, 143, 1534-1547.	0.5	24
289	On isotropic cloaking and interior transmission eigenvalue problems. European Journal of Applied Mathematics, 2018, 29, 253-280.	1.4	10
290	Transformation thermotics: Thermal metamaterials and their applications. International Journal of Modern Physics B, 2018, 32, 1840004.	1.0	5
291	Numerical study of the attenuation properties of viscoelastic metamaterials. IOP Conference Series: Materials Science and Engineering, 2018, 380, 012002.	0.3	0
292	Manipulate Vibration Propagation by Anisotropic Honeycomb Structure. MATEC Web of Conferences, 2018, 175, 03040.	0.1	0
293	Dynamic mechanical property analysis of 3D membrane-imbedded acoustic metamaterials. IOP Conference Series: Materials Science and Engineering, 2018, 397, 012062.	0.3	0
294	A degenerate polar lattice for cloaking in full two-dimensional elastodynamics and statics. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20180523.	1.0	20

#	Article	IF	Citations
295	Transformation Thermodynamics with Arbitrarily Shaped Non-Conformal Objects and Coatings. MATEC Web of Conferences, 2018, 186, 01007.	0.1	0
296	Unidirectional zero sonic reflection in passive <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="script">PT</mml:mi></mml:math> -symmetric Willis media. Physical Review B, 2018, 98, .	1.1	56
297	Design of Acoustic Metamaterials Using Gradient Based Optimization. , 2018, , .		0
298	Experimental Demonstration of an Ultrabroadband Nonlinear Cloak for Flexural Waves. Physical Review Letters, 2018, 121, 174301.	2.9	28
299	Acoustic cloak based on BÃ©zier scatterers. Scientific Reports, 2018, 8, 12924.	1.6	23
300	Broadband underwater acoustic carpet cloak based on pentamode materials under normal incidence. AIP Advances, 2018, 8, .	0.6	19
301	Underwater Acoustic Manipulation Using Solid Metamaterials With Broadband Anisotropic Density. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	1.1	6
302	Waves in one-dimensional quasicrystalline structures: dynamical trace mapping, scaling and self-similarity of the spectrum. Journal of the Mechanics and Physics of Solids, 2018, 119, 83-103.	2.3	20
303	Broadband Bending of Flexural Waves: Acoustic Shapes and Patterns. Scientific Reports, 2018, 8, 11219.	1.6	17
304	Controlling Out-of-Plane Elastic Shear Wave Propagation With Broadband Cloaking. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	1.1	5
305	Acoustic Metamaterials in Aeronautics. Applied Sciences (Switzerland), 2018, 8, 971.	1.3	28
306	An Optimization Method for Design of Acoustic Metamaterial Structure. MATEC Web of Conferences, 2018, 175, 01023.	0.1	1
307	Achieving thermal magnification by using effective thermal conductivity. Theoretical and Applied Mechanics Letters, 2018, 8, 164-170.	1.3	1
308	Achieving thermal concentration based on fiber reinforced composite microstructures design. Journal Physics D: Applied Physics, 2018, 51, 315304.	1.3	8
309	New devices for unidirectional acoustic cloaking for large objects in infinite frequency bandwidth. International Journal of Modern Physics B, 2018, 32, 1850264.	1.0	0
310	Experimental demonstration of three-dimensional broadband underwater acoustic carpet cloak. Applied Physics Letters, 2018, 112, 223502.	1.5	52
311	Hyperelastic antiplane ground cloaking. Journal of the Acoustical Society of America, 2018, 143, 2878-2885.	0.5	8
312	Deepening subwavelength acoustic resonance via metamaterials with universal broadband elliptical microstructure. Applied Physics Letters, 2018, 112, .	1.5	4

#	Article	IF	Citations
313	Active noise cloaking of 2D cylindrical shells. Wave Motion, 2019, 87, 106-122.	1.0	20
314	Study on mechanical properties of honeycomb pentamode structures fabricated by laser additive manufacturing: Numerical simulation and experimental verification. Composite Structures, 2019, 226, 111199.	3.1	54
315	Transient response of a gyro-elastic structured medium: Unidirectional waveforms and cloaking. International Journal of Engineering Science, 2019, 143, 115-141.	2.7	27
316	Sound scattering by a lattice of resonant inclusions in a soft medium. Physical Review E, 2019, 99, 063006.	0.8	30
317	Extensions to the acoustic scattering analysis for cloaks in non-uniform mean flows. Journal of the Acoustical Society of America, 2019, 146, 41-49.	0.5	8
318	Development of a perforated plate underwater acoustic ground cloak. Journal of the Acoustical Society of America, 2019, 146, 2303-2308.	0.5	10
319	Broadband and High-Transmission Metasurface for Converting Underwater Cylindrical Waves to Plane Waves. Physical Review Applied, 2019, 12, .	1.5	45
320	EP.36PATCHS MRI score correlates with clinical severity in facioscapulohumeral muscular dystrophy. Neuromuscular Disorders, 2019, 29, S111.	0.3	0
321	Group Velocityâ€“Driven Inverse Metamaterial Design. Journal of Engineering Mechanics - ASCE, 2019, 145, 04019094.	1.6	8
322	Active acoustic cloaking in a convected flow field. Journal of the Acoustical Society of America, 2019, 146, 586-594.	0.5	9
323	Control of underwater acoustics using anisotropic solid metamaterials with continuously tuned material axes. Extreme Mechanics Letters, 2019, 32, 100544.	2.0	2
324	Omnidirectional flexural invisibility of multiple interacting voids in vibrating elastic plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190283.	1.0	12
325	Active acoustic illusions for stealth and subterfuge. Scientific Reports, 2019, 9, 13596.	1.6	6
326	Simultaneous focusing and rotation of a bifunctional thermal metamaterial with constant anisotropic conductivity. Journal of Applied Physics, 2019, 126, .	1.1	10
327	Influences of imperfectness and inner constraints on an acoustic cloak with unideal pentamode materials. Journal of Sound and Vibration, 2019, 458, 62-73.	2.1	29
328	Nonlinear and Linear Elastodynamic Transformation Cloaking. Archive for Rational Mechanics and Analysis, 2019, 234, 211-316.	1.1	15
329	Tailoring one-dimensional layered metamaterials to achieve unidirectional transmission and reflection. Physical Review B, 2019, 99, .	1.1	6
330	In-Plane Semi-Linear Cloaks with Arbitrary Shape. Acta Mechanica Solida Sinica, 2019, 32, 277-286.	1.0	4

#	Article	IF	Citations
331	Isotropic polar solids for conformal transformation elasticity and cloaking. Journal of the Mechanics and Physics of Solids, 2019, 129, 229-243.	2.3	41
332	Three-dimensional pentamode acoustic metamaterials with hexagonal unit cells. Journal of the Acoustical Society of America, 2019, 145, 1372-1377.	0.5	20
333	Active times for acoustic metamaterials. Reviews in Physics, 2019, 4, 100031.	4.4	119
334	Analysis of Low Frequency Acoustic Stop Bands in Cubic Arrays of Thick Spherical Shells With Holes. Frontiers in Materials, 2019, 6, .	1.2	2
335	Physically Realizable Broadband Acoustic Metamaterials with Anisotropic Density. Chinese Physics Letters, 2019, 36, 024301.	1.3	5
336	Conformal Singularities and Topological Defects from Inverse Transformation Optics. Physical Review Applied, 2019, 11, .	1.5	10
337	On the forces that cable webs under tension can support and how to design cable webs to channel stresses. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180781.	1.0	8
338	On the emergence of negative effective density and modulus in 2-phase phononic crystals. Journal of the Mechanics and Physics of Solids, 2019, 126, 256-271.	2.3	31
339	On the Invariance of Governing Equations of Current Nonlocal Theories of Elasticity Under Coordinate Transformation and Displacement Gauge Change. Journal of Elasticity, 2019, 137, 237-246.	0.9	6
340	Hyperbolic Sound Propagation over Nonlocal Acoustic Metasurfaces. Physical Review Letters, 2019, 123, 244303.	2.9	44
341	Nonlinear transformation-based broadband cloaking for flexural waves in elastic thin plates. Journal of Sound and Vibration, 2019, 445, 270-287.	2.1	17
342	Tuning method of phononic band gaps of locally resonant pentamode metamaterials. Journal Physics D: Applied Physics, 2019, 52, 045601.	1.3	19
343	Two-Dimensional Arbitrarily Shaped Acoustic Cloaks With Triangular Patterns of Homogeneous Properties. Journal of Vibration and Acoustics, Transactions of the ASME, 2019, 141, .	1.0	9
344	Convective correction of metafluid devices based on Taylor transformation. Journal of Sound and Vibration, 2019, 443, 238-252.	2.1	9
345	Scattering Analysis and Optimization of Spherical Acoustic Cloak with Unideal Pentamode Material. Acta Mechanica Solida Sinica, 2020, 33, 347-360.	1.0	8
346	Acoustic cloaking: Geometric transform, homogenization and a genetic algorithm. Wave Motion, 2020, 92, 102413.	1.0	20
347	Design and analysis of nonlinear-transformation-based broadband cloaking for acoustic wave propagation. Wave Motion, 2020, 92, 102421.	1.0	6
348	Control of elastic shear waves by periodic geometric transformation: cloaking, high reflectivity and anomalous resonances. Journal of the Mechanics and Physics of Solids, 2020, 137, 103816.	2.3	17

#	Article	IF	Citations
349	Cloaking of a circular cylindrical elastic inclusion from antiplane elastic waves and resonance effects. Wave Motion, 2020, 94, 102491.	1.0	6
350	On the universality of the frequency spectrum and band-gap optimization of quasicrystalline-generated structured rods. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190240.	1.6	8
351	Design of elastic metasurfaces for controlling shear vertical waves using uniaxial scaling transformation method. International Journal of Mechanical Sciences, 2020, 169, 105335.	3.6	13
352	Strongly anisotropic surface elasticity and antiplane surface waves. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190100.	1.6	18
353	The effect of a solid boundary on the propagation of thermodynamic disturbances in a rarefied gas. Physics of Fluids, 2020, 32, 092002.	1.6	5
354	Asymptotics of near-cloaking. European Journal of Applied Mathematics, 2020, , 1-21.	1.4	0
355	Review of underwater sound absorption materials. IOP Conference Series: Earth and Environmental Science, 2020, 508, 012182.	0.2	11
356	Inverse-designed spinodoid metamaterials. Npj Computational Materials, 2020, 6, .	3.5	151
357	Microtwist elasticity: A continuum approach to zero modes and topological polarization in Kagome lattices. Journal of the Mechanics and Physics of Solids, 2020, 144, 104107.	2.3	11
358	Static elastic cloaking, low-frequency elastic wave transparency and neutral inclusions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20190725.	1.0	5
359	Experimental demonstration of underwater ultrasound cloaking based on metagrating. Applied Physics Letters, 2020, 117, .	1.5	35
360	On the integration of acoustic phase-gradient metasurfaces in aeronautics. International Journal of Aeroacoustics, 2020, 19, 294-309.	0.8	8
361	Novel cloaking lamellar structures for a screw dislocation dipole, a circular Eshelby inclusion and a concentrated couple. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200095.	1.0	0
362	Impact of particle size and multiple scattering on the propagation of waves in stealthy-hyperuniform media. Physical Review E, 2020, 102, 053001.	0.8	15
363	Experimental demonstration of a broadband waterborne acoustic metasurface for shifting reflected waves. Journal of Applied Physics, 2020, 127, 174902.	1.1	13
364	Active acoustic cloaking of cylindrical shells in low Mach number flow. Journal of Sound and Vibration, 2020, 479, 115400.	2.1	16
365	Superelement modelling of elastic metamaterials: Complex dispersive properties of three-dimensional structured beams and plates. Journal of Sound and Vibration, 2020, 484, 115499.	2.1	9
366	Extraordinary Sound Isolation Using an Ultrasparse Array of Degenerate Anisotropic Scatterers. Physical Review Applied, 2020, 13, .	1.5	19

#	Article	IF	Citations
367	Acoustic Metamaterial Design Method Based on Green Coordinate Transformation. Materials Science Forum, 2020, 976, 15-24.	0.3	0
368	Scattering of in-plane elastic waves at metamaterial interfaces. International Journal of Engineering Science, 2020, 150, 103278.	2.7	19
369	Effect of anisotropy on phononic band structure and figure of merit of pentamode metamaterials. Journal of Applied Physics, 2020, 127, 124903.	1.1	14
370	The Gradient of Total Multiple Scattering Cross-Section and Its Application to Acoustic Cloaking. Journal of Theoretical and Computational Acoustics, 2020, 28, 1950016.	0.5	11
371	Polar Metamaterials: A New Outlook on Resonance for Cloaking Applications. Physical Review Letters, 2020, 124, 084301.	2.9	37
372	Causality and passivity: From electromagnetism and network theory to metamaterials. Mechanics of Materials, 2021, 154, 103710.	1.7	10
373	A brief review of dynamic mechanical metamaterials for mechanical energy manipulation. Materials Today, 2021, 44, 168-193.	8.3	80
374	The required acoustic parameters simplification of invisibility cloaks and concentrators using the impedance-tunable coordinate transformation. Scientific Reports, 2021, 11, 920.	1.6	4
375	Improved multimodal formulation of the wave propagation in a 3D waveguide with varying cross-section and curvature. Journal of the Acoustical Society of America, 2021, 149, 476-486.	0.5	8
376	A microarchitecture design methodology to achieve extreme isotropic elastic properties of composites based on crystal symmetries. Structural and Multidisciplinary Optimization, 2021, 63, 2459-2472.	1.7	5
377	Pulse Dynamics of Flexural Waves in Transformed Plates. Advanced Functional Materials, 2021, 31, 2009266.	7.8	6
378	Optimal design of acoustic metamaterial cloaks under uncertainty. Journal of Computational Physics, 2021, 431, 110114.	1.9	34
379	Pentamode metamaterials with ultra-low-frequency single-mode band gap based on constituent materials. Journal of Physics Condensed Matter, 2021, 33, 185703.	0.7	5
380	Controlling Heat Conduction with Nonlinear-Transformation Cloaking. International Journal of Thermophysics, 2021, 42, 1.	1.0	3
381	Experimental evidence of a hiding zone in a density-near-zero acoustic metamaterial. Journal of Applied Physics, 2021, 129, 145101.	1.1	5
382	Acoustic Metamaterial for Simultaneous Noise Filteringand Energy Harvesting From Ambient Vibrations. , 2021, , .		1
383	Time-domain investigation of an external cloak for antiplane elastic waves. Applied Physics Letters, 2021, 118, .	1.5	6
384	Design and simulation of broadband multiphase pentamode metamaterials. Applied Physics Letters, 2021, 118, .	1.5	14

#	Article	IF	Citations
385	A review of additive manufacturing of metamaterials and developing trends. Materials Today, 2021, 50, 303-328.	8.3	152
386	Core-shell pentamode metamaterials with broader mechanical response and higher sensitivity. Physica Scripta, 2021, 96, 105702.	1.2	0
387	Underwater Acoustic Stealth by a Broadband 2-Bit Coding Metasurface. Physical Review Applied, 2021, 15, .	1.5	20
388	Reinforcement learning applied to metamaterial design. Journal of the Acoustical Society of America, 2021, 150, 321-338.	0.5	27
389	Research on Ultrabroadband Acoustic Absorbers Based on Slow-wave Metamaterials. , 2021, , .		2
390	Adiabatic edge-to-edge transformations in time-modulated elastic lattices and non-Hermitian shortcuts. New Journal of Physics, 2021, 23, 093008.	1.2	10
391	Multichannel Piezoâ€Ultrasound Implant with Hybrid Waterborne Acoustic Metastructure for Selective Wireless Energy Transfer at Megahertz Frequencies. Advanced Materials, 2021, 33, e2104251.	11.1	23
392	Passive, remote and omnidirectional suppression of sound source radiation via an acoustic superscatterer. Journal Physics D: Applied Physics, 2022, 55, 015302.	1.3	5
393	Theoretical verification of three-dimensional manufacturable pentamode metamaterial microstructure. Journal of Physics Condensed Matter, 2021, 33, 485702.	0.7	1
394	Discrete transformation elasticity: An approach to design lattice-based polar metamaterials. International Journal of Engineering Science, 2021, 168, 103562.	2.7	13
395	Quadramode materials: Their design method and wave property. Materials and Design, 2021, 210, 110031.	3.3	9
396	Acoustic scattering reduction of elliptical targets via pentamode near-cloaking based on transformation acoustics in elliptic coordinates. Journal of Sound and Vibration, 2021, 512, 116396.	2.1	16
397	An ultrathin acoustic carpet cloak based on resonators with extended necks. Journal Physics D: Applied Physics, 2020, 53, 505501.	1.3	15
398	Composite hexagonal pentamode acoustic metamaterials with tailored properties. Journal of Physics Condensed Matter, 2020, 32, 475701.	0.7	8
399	Tunable and Active Phononic Crystals and Metamaterials. Applied Mechanics Reviews, 2020, 72, .	4.5	292
401	Theoretical and numerical analysis of layered cylindrical pentamode acoustic cloak. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 134303.	0.2	5
402	Research on coordinate transformation design of a cylinderical acoustic cloak with pentamode materials. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 174301.	0.2	6
403	Transformation thermotics: thermal metamaterials and their applications. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 178103.	0.2	7

#	Article	IF	Citations
404	Exploring mechanical assonance for impact energy harvesting using acoustic metamaterials. Journal of Intelligent Material Systems and Structures, 0, , 1045389X2110482.	1.4	0
405	Transformation acoustics with bulk media composed of polarized sources. Physical Review B, 2021, 104, .	1.1	3
406	Layered elliptical-cylindrical acoustic cloaking design based on isotropic materials. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 184301.	0.2	11
407	Discontinuous Galerkin Methods for Metamaterials. Springer Series in Computational Mathematics, 2013, , 127-150.	0.1	0
408	Multiscale models of electromagnetic and plasmonic metamaterials. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2013, , 19-71.	0.3	0
409	The Research Progress of Acoustic Metamaterials. Open Journal of Acoustics and Vibration, 2013, 01, 7-13.	0.0	0
410	Micromechanics of Elastic Metamaterials. , 2013, , .		1
411	Invisibility Regions and Regular Metamaterials. Springer Optimization and Its Applications, 2014, , 151-159.	0.6	0
413	Ultrathin ultralight acoustic cloak. Veruscript Functional Nanomaterials, 2017, 1, 1-9.	0.2	0
414	Phononic band structure and figure of merit of three-dimensional anisotropic asymmetric double-cone pentamode metamaterials. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 134302.	0.2	2
415	Recent Progress in Active Mechanical Metamaterials and Construction Principles. Advanced Science, 2022, 9, e2102662.	5.6	75
416	Revealing the Linear and Nonlinear Dynamic Behaviors of Metabeams With a Dynamic Homogenization Model. Journal of Vibration and Acoustics, Transactions of the ASME, 2020, 142, .	1.0	6
417	Two-Dimensional Composite Acoustic Metamaterials of Rectangular Unit Cell from Pentamode to Band Gap. Crystals, 2021, 11, 1457.	1.0	5
418	Switchable acoustic metagrating for three-channel retroreflection and carpet cloaking. Applied Physics Express, 2022, 15, 024002.	1.1	5
419	Design of arbitrarily shaped acoustic cloaks through partial differential equation-constrained optimization satisfying sonic-metamaterial design requirements. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	1.0	7
420	Cloaking strategy for Love waves. Extreme Mechanics Letters, 2022, 50, 101564.	2.0	4
421	Design and characterization of a three-dimensional anisotropic additively manufactured pentamode material. Journal of the Acoustical Society of America, 2022, 151, 168-179.	0.5	15
422	Silver-mean canonical quasicrystalline-generated phononic waveguides. Journal of Sound and Vibration, 2022, 523, 116679.	2.1	4

#	Article	IF	Citations
423	Fast active thermal cloaking through PDE-constrained optimization and reduced-order modelling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	1.0	7
424	A review of elastic plate wave metamaterials. Chinese Science Bulletin, 2022, 67, 1232-1248.	0.4	3
425	Extreme mechanical metamaterials with independently adjustable elastic modulus and mass density. Applied Physics Express, 2022, 15, 047001.	1.1	0
426	Conditional Wasserstein generative adversarial networks applied to acoustic metamaterial design. Journal of the Acoustical Society of America, 2021, 150, 4362-4374.	0.5	14
427	Simultaneous negative reflection and refraction and reverse-incident right-angle collimation of sound in a solid-fluid phononic crystal. Journal of the Acoustical Society of America, 2022, 151, 2723-2731.	0.5	7
428	Acoustic passive cloaking using thin outer resonators. Zeitschrift Fur Angewandte Mathematik Und Physik, 2022, 73, 1.	0.7	2
429	Elastic Metamaterials of Hexagonal Unit Cells with Double-Cone Arms from Pentamode to Band Gap at Low Frequencies. Crystals, 2022, 12, 604.	1.0	1
430	Design of elliptical underwater acoustic cloak with truss-latticed pentamode materials. Theoretical and Applied Mechanics Letters, 2022, 12, 100346.	1.3	4
431	Longitudinal Wave Locally Resonant Band Gaps in Metamaterial-Based Elastic Rods Comprising Multi-Degree-of-Freedom DAVI Resonators. Symmetry, 2022, 14, 1030.	1.1	1
432	Acoustic superscatterer enables remote mitigation of underwater source radiation. Journal of Applied Physics, 2022, 131, .	1.1	4
433	Scattering of mechanical waves from the perspective of open systems. Mechanics of Materials, 2022, 172, 104399.	1.7	3
434	Dual-function thermoelastic cloak based on coordinate transformation theory. International Journal of Heat and Mass Transfer, 2022, 195, 123128.	2.5	4
435	Efficient 3D Acoustic Simulation of the Vocal Tract by Combining the Multimodal Method and Finite Elements. IEEE Access, 2022, 10, 69922-69938.	2.6	6
436	Harnessing <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="script">PT</mml:mi></mml:math> -symmetry in non-Hermitian stiffness-modulated waveguides. Physical Review B, 2022, 105, .	1.1	5
437	Broadband Acoustic Metamaterial Design via Machine Learning. Journal of Theoretical and Computational Acoustics, 2022, 30, .	0.5	6
438	Massive and Fast Fabrication of Pentamode Devices Through a Honeycomb-Corrugation Configuration. SSRN Electronic Journal, 0, , .	0.4	0
439	Instabilities of intrinsic thermoacoustic modes in a thermoacoustic waveguide with anechoic terminations. Physical Review B, 2022, 106, .	1.1	0
440	Optimization of Acoustic Channels to Minimize Scattered Pressure Fields. Journal of Theoretical and Computational Acoustics, 2022, 30, .	0.5	0

#	Article	IF	Citations
441	Omnidirectional acoustic cloaking against airborne sound realized by a locally resonant sonic material. Scientific Reports, 2022, 12, .	1.6	6
442	Design and Experimental Verification of a Broadband Multiphase Pentamode Material. Physical Review Applied, 2022, 18, .	1.5	4
443	Programmable bulk modulus in acoustic metamaterials composed of strongly interacting active cells. Applied Physics Letters, 2022, 121, .	1.5	3
445	Inverse Design of an Ultrasparse Dissipated-Sound Metacage by Using a Genetic Algorithm. Physical Review Applied, 2022, 18, .	1.5	4
446	Non-Hermitian elastodynamics in gyro-odd continuum media. Communications Materials, 2022, 3, .	2.9	6
447	Two-Dimensional Distributed Transmission-Line Models for Broadband Full-Tensor Anisotropic Acoustic Metamaterials Based on Transformation Acoustics. Crystals, 2022, 12, 1557.	1.0	0
448	A review on the research progress of mechanical meta-structures and their applications in rail transit. , 2022, 1, .		1
449	Microstructure Design and Performance Optimization of Constant Modulus Pentamode Materials Acoustic Cloak. Crystals, 2022, 12, 1572.	1.0	1
450	Design of metasurfaces in 3D for omnidirectional band gaps: The scalar wave case. Extreme Mechanics Letters, 2022, , 101922.	2.0	0
451	Spatially programmable wave compression and signal enhancement in a piezoelectric metamaterial waveguide. Physical Review B, 2022, 106, .	1.1	7
452	Design of a polyurethane underwater sound absorber based on the BP neural network and genetic algorithm. Frontiers in Physics, 0, 10, .	1.0	0
453	Research on the structural design and pentamodal property of three-dimensional multilayer cylindrical pentamode metamaterials for tuning acoustic waves. Modern Physics Letters B, 0, , .	1.0	0
454	An acoustic cloaking design based on topology optimization. Journal of the Acoustical Society of America, 2022, 152, 3510-3521.	0.5	3
455	A review of underwater acoustic metamaterials for underwater acoustic equipment. Frontiers in Physics, 0, 10, .	1.0	4
456	Introduction andÂState ofÂtheÂArt. SpringerBriefs in Applied Sciences and Technology, 2023, , 1-9.	0.2	0
457	Emerging topics in nanophononics and elastic, acoustic, and mechanical metamaterials: an overview. Nanophotonics, 2023, 12, 659-686.	2.9	34
458	Transformation Acoustics. SpringerBriefs in Applied Sciences and Technology, 2023, , 39-47.	0.2	0
459	Elastic temporal waveguiding. New Journal of Physics, 2023, 25, 013031.	1.2	4

#	Article	IF	Citations
460	Microstructure realization of a lattice-based polar solid for arbitrary elastic waveguiding. Journal of the Mechanics and Physics of Solids, 2023, 173, 105226.	2.3	3
461	Parametric Analysis and Multi-Objective Optimization of Pentamode Metamaterial. Sustainability, 2023, 15, 3421.	1.6	3
462	Tetramode Metamaterials as Phonon Polarizers. Advanced Materials, 2023, 35, .	11.1	7
463	Massive and fast fabrication of pentamode devices through a multiphase honeycomb-corrugation configuration. Materials and Design, 2023, 228, 111816.	3.3	3
468	Assessment of the convective correction defect of metacontinua using spurious sources in the aeroacoustic spacetime. , 2023, , .		0
490	Non-reciprocal propagation in an acoustic waveguide with a thermally graded metal lattice core. AIP Conference Proceedings, 2024, , .	0.3	0