

AurÃ©lien Merkel

List of Publications by Year in descending order

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Version: 2024-02-01

27
papers

1,077
citations

516215

16
h-index

525886

27
g-index

27
all docs

27
docs citations

27
times ranked

770
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-locality of the Willis coupling in fluid laminates. <i>Wave Motion</i> , 2022, 110, 102892.	1.0	2
2	Nonlocal acoustic metasurface for ultrabroadband sound absorption. <i>Physical Review B</i> , 2021, 103, .	1.1	49
3	Experimental evidence of a hiding zone in a density-near-zero acoustic metamaterial. <i>Journal of Applied Physics</i> , 2021, 129, 145101.	1.1	5
4	Analytical modeling of one-dimensional resonant asymmetric and reciprocal acoustic structures as Willis materials. <i>New Journal of Physics</i> , 2021, 23, 053020.	1.2	10
5	Ultrathin acoustic absorbing metasurface based on deep learning approach. <i>Smart Materials and Structures</i> , 2021, 30, 085003.	1.8	57
6	Nonreciprocal and even Willis couplings in periodic thermoacoustic amplifiers. <i>Physical Review B</i> , 2021, 104, .	1.1	9
7	Janus acoustic metascreen with nonreciprocal and reconfigurable phase modulations. <i>Nature Communications</i> , 2021, 12, 7089.	5.8	21
8	Doping of a plate-type acoustic metamaterial. <i>Physical Review B</i> , 2020, 102, .	1.1	9
9	Perfect Absorption in Mirror-Symmetric Acoustic Metascreens. <i>Physical Review Applied</i> , 2020, 14, .	1.5	29
10	Bifunctional superlens for simultaneous flexural and acoustic wave superfocusing. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	14
11	Design of acoustic metamaterials made of Helmholtz resonators for perfect absorption by using the complex frequency plane. <i>Comptes Rendus Physique</i> , 2020, 21, 713-749.	0.3	15
12	Broadband tunable lossy metasurface with independent amplitude and phase modulations for acoustic holography. <i>Smart Materials and Structures</i> , 2020, 29, 105038.	1.8	33
13	Zero-phase propagation in realistic plate-type acoustic metamaterials. <i>Applied Physics Letters</i> , 2019, 115, .	1.5	11
14	Ultrasonic nodal chains in topological granular metamaterials. <i>Communications Physics</i> , 2019, 2, .	2.0	12
15	Testing a bead-rod contact with a nonlinear resonance method. <i>Journal of Sound and Vibration</i> , 2019, 441, 84-95.	2.1	3
16	Dynamic Nonreciprocity in Loss-Compensated Piezophononic Media. <i>Physical Review Applied</i> , 2018, 9, .	1.5	28
17	symmetric sonic crystals: From asymmetric echoes to supersonic speeds. <i>Europhysics Letters</i> , 2018, 124, 34001.	0.7	5
18	Unidirectional zero sonic reflection in passive γ -symmetric Willis media. <i>Physical Review B</i> , 2018, 98, .	1.1	56

#	ARTICLE	IF	CITATIONS
19	Enhanced micropolar model for wave propagation in ordered granular materials. International Journal of Solids and Structures, 2017, 106-107, 91-105.	1.3	30
20	Perfect and broadband acoustic absorption by critically coupled sub-wavelength resonators. Scientific Reports, 2016, 6, 19519.	1.6	228
21	Control of acoustic absorption in one-dimensional scattering by resonant scatterers. Applied Physics Letters, 2015, 107, .	1.5	147
22	Limits of slow sound propagation and transparency in lossy, locally resonant periodic structures. New Journal of Physics, 2014, 16, 093017.	1.2	87
23	Directional asymmetry of the nonlinear wave phenomena in a three-dimensional granular phononic crystal under gravity. Physical Review E, 2014, 90, 023206.	0.8	16
24	Experimental Evidence of Rotational Elastic Waves in Granular Phononic Crystals. Physical Review Letters, 2011, 107, 225502.	2.9	108
25	Elastic waves in phononic monolayer granular membranes. New Journal of Physics, 2011, 13, 073042.	1.2	27
26	Elastic waves in noncohesive frictionless granular crystals. Ultrasonics, 2010, 50, 133-138.	2.1	17
27	Dispersion of elastic waves in three-dimensional noncohesive granular phononic crystals: Properties of rotational modes. Physical Review E, 2010, 82, 031305.	0.8	49