J-P Groby

List of Publications by Year in Descending Order

86 papers	1,891 citations	24 h-index	40 g-index
88 ext. papers	2,293 ext. citations	2.9 avg, IF	5.2 L-index

#	Paper	IF	Citations
86	Non-locality of the Willis coupling in fluid laminates. *Wave Motion*, **2022**, 102892	1.8	
85	Perfect, broadband, and sub-wavelength absorption with asymmetric absorbers: Realization for duct acoustics with 3D printed porous resonators. *Journal of Sound and Vibration*, **2022**, 523, 116687	3.9	2
84	Control of bending wave reflection at beam terminations by thermally tunable subwavelength resonators. *Journal of Sound and Vibration*, **2022**, 116918	3.9	1
83	Experimental demonstration of Willis coupling for elastic torsional waves. *Wave Motion*, **2022**, 102931	1.8	
82	Underwater metamaterial absorber with impedance-matched composite.. *Science Advances*, **2022**, 8, eabm4206	14.3	5
81	The Transfer Matrix Method in Acoustics. *Topics in Applied Physics*, **2021**, 103-164	0.5	0
80	Nonreciprocal and even Willis couplings in periodic thermoacoustic amplifiers. *Physical Review B*, **2021**, 104,	3.3	2
79	Asymmetric Metaporous Treatment: Optimization for Perfect Sound Absorption, 3D Printing, and Characterization with Air Flow **2021**,		1
78	Wave transport in 1D stealthy hyperuniform phononic materials made of non-resonant and resonant scatterers. *APL Materials*, **2021**, 9, 101101	5.7	0
77	Acoustic Metamaterial Absorbers. *Topics in Applied Physics*, **2021**, 167-204	0.5	
76	Rapid additive manufacturing of optimized anisotropic metaporous surfaces for broadband absorption. *Journal of Applied Physics*, **2021**, 129, 115102	2.5	4
75	Experimental evidence of a hiding zone in a density-near-zero acoustic metamaterial. *Journal of Applied Physics*, **2021**, 129, 145101	2.5	2
74	Localized interface modes in one-dimensional hyperuniform acoustic materials. *Journal Physics D: Applied Physics*, **2021**, 54, 315303	3	2
73	Spiral sound-diffusing metasurfaces based on holographic vortices. *Scientific Reports*, **2021**, 11, 10217	4.9	2
72	Analytical modeling of one-dimensional resonant asymmetric and reciprocal acoustic structures as Willis materials. *New Journal of Physics*, **2021**, 23, 053020	2.9	7
71	Metadiffusers for quasi-perfect and broadband sound diffusion. *Applied Physics Letters*, **2021**, 119, 044101	3.4	2
70	Estimation via Laser Ultrasonics of the Ultrasonic Attenuation in a Polycrystalline Aluminum Thin Plate Using Complex Wavenumber Recovery in the Vicinity of a Zero-Group-Velocity Lamb Mode. *Applied Sciences (Switzerland)*, **2021**, 11, 6924	2.6	1

69	Scattering Evaluation of Equivalent Surface Impedances of Acoustic Metamaterials in Large FDTD Volumes Using RLC Circuit Modelling. *Applied Sciences (Switzerland)*, **2021**, 11, 8084	2.6	
68	Natural sonic crystal absorber constituted of seagrass (Posidonia Oceanica) fibrous spheres. *Scientific Reports*, **2021**, 11, 711	4.9	5
67	Acoustic modeling of micro-lattices obtained by additive manufacturing. *Applied Acoustics*, **2020**, 164, 107244	3.1	18
66	Folded metaporous material for sub-wavelength and broadband perfect sound absorption. *Applied Physics Letters*, **2020**, 117, 251902	3.4	10
65	Reproducibility of sound-absorbing periodic porous materials using additive manufacturing technologies: Round robin study. *Additive Manufacturing*, **2020**, 36, 101564	6.1	13
64	Graded and Anisotropic Porous Materials for Broadband and Angular Maximal Acoustic Absorption. *Materials*, **2020**, 13,	3.5	7
63	Characterization on Polyester Fibrous Panels and Their Homogeneity Assessment. *Polymers*, **2020**, 12,	4.5	4
62	Doping of a plate-type acoustic metamaterial. *Physical Review B*, **2020**, 102,	3.3	4
61	Perfect Absorption in Mirror-Symmetric Acoustic Metascreens. *Physical Review Applied*, **2020**, 14,	4.3	14
60	Design of acoustic metamaterials made of Helmholtz resonators for perfect absorption by using the complex frequency plane. *Comptes Rendus Physique*, **2020**, 21, 713-749	1.4	6
59	Zero-phase propagation in realistic plate-type acoustic metamaterials. *Applied Physics Letters*, **2019**, 115, 134101	3.4	6
58	General method to retrieve all effective acoustic properties of fully-anisotropic fluid materials in three dimensional space. *Journal of Applied Physics*, **2019**, 125, 025114	2.5	10
57	3D-printed sound absorbing metafluid inspired by cereal straws. *Scientific Reports*, **2019**, 9, 8496	4.9	9
56	Characterising poroelastic materials in the ultrasonic range - A Bayesian approach. *Journal of Sound and Vibration*, **2019**, 456, 30-48	3.9	6
55	Limits of flexural wave absorption by open lossy resonators: reflection and transmission problems. *New Journal of Physics*, **2019**, 21, 053003	2.9	14
54	Aerogel-based metasurfaces for perfect acoustic energy absorption. *Applied Physics Letters*, **2019**, 115, 061901	3.4	15
53	Experimental validation of deep-subwavelength diffusion by acoustic metadiffusers. *Applied Physics Letters*, **2019**, 115, 081901	3.4	10
52	Introduction to Multiple Scattering Theory **2019**, 143-182		3

51	Optimally graded porous material for broadband perfect absorption of sound. *Journal of Applied Physics*, **2019**, 126, 175101	2.5	24
50	Acoustic wave propagation in effective graded fully anisotropic fluid layers. *Journal of the Acoustical Society of America*, **2019**, 146, 3400	2.2	9
49	Nonlocal boundary conditions for corrugated acoustic metasurface with strong near-field interactions. *Journal of Applied Physics*, **2018**, 123, 091712	2.5	9
48	Acoustic characterization of silica aerogel clamped plates for perfect absorption. *Journal of Non-Crystalline Solids*, **2018**, 499, 283-288	3.9	8
47	How reproducible are methods to measure the dynamic viscoelastic properties of poroelastic media?. *Journal of Sound and Vibration*, **2018**, 428, 26-43	3.9	16
46	Perfect Absorption of Sound by Rigidly-Backed High-Porous Materials. *Acta Acustica United With Acustica*, **2018**, 104, 396-409	1.5	17
45	Unidirectional zero sonic reflection in passive PT-symmetric Willis media. *Physical Review B*, **2018**, 98,	3.3	39
44	Complex dispersion relation of surface acoustic waves at a lossy metasurface. *Applied Physics Letters*, **2017**, 110, 051902	3.4	25
43	Deterministic and statistical characterization of rigid frame porous materials from impedance tube measurements. *Journal of the Acoustical Society of America*, **2017**, 142, 2407	2.2	35
42	Rainbow-trapping absorbers: Broadband, perfect and asymmetric sound absorption by subwavelength panels for transmission problems. *Scientific Reports*, **2017**, 7, 13595	4.9	164
41	Metadiffusers: Deep-subwavelength sound diffusers. *Scientific Reports*, **2017**, 7, 5389	4.9	36
40	Quasiperfect absorption by subwavelength acoustic panels in transmission using accumulation of resonances due to slow sound. *Physical Review B*, **2017**, 95,	3.3	94
39	Iridescent Perfect Absorption in Critically-Coupled Acoustic Metamaterials Using the Transfer Matrix Method. *Applied Sciences (Switzerland)*, **2017**, 7, 618	2.6	12
38	A wave based method to predict the absorption, reflection and transmission coefficient of two-dimensional rigid frame porous structures with periodic inclusions. *Journal of Computational Physics*, **2016**, 312, 115-138	4.1	10
37	Design of metaporous supercells by genetic algorithm for absorption optimization on a wide frequency band. *Applied Acoustics*, **2016**, 102, 49-54	3.1	41
36	Asymptotic limits of some models for sound propagation in porous media and the assignment of the pore characteristic lengths. *Journal of the Acoustical Society of America*, **2016**, 139, 2463	2.2	22
35	Spatial Laplace transform for complex wavenumber recovery and its application to the analysis of attenuation in acoustic systems. *Journal of Applied Physics*, **2016**, 120, 135107	2.5	14
34	High broadband absorption of acoustic waves by elastic-framed metaporous layer **2016**,		1

33	Ultra-thin metamaterial for perfect and quasi-omnidirectional sound absorption. *Applied Physics Letters*, **2016**, 109, 121902	3.4	203
32	Use of slow sound to design perfect and broadband passive sound absorbing materials. *Journal of the Acoustical Society of America*, **2016**, 139, 1660	2.2	57
31	Acoustic behavior of a rigidly backed poroelastic layer with periodic resonant inclusions by a multiple scattering approach. *Journal of the Acoustical Society of America*, **2016**, 139, 617-29	2.2	32
30	Low frequency sound attenuation in a flow duct using a thin slow sound material. *Journal of the Acoustical Society of America*, **2016**, 139, EL149	2.2	23
29	The use of slow waves to design simple sound absorbing materials. *Journal of Applied Physics*, **2015**, 117, 124903	2.5	65
28	Enhancing the absorption properties of acoustic porous plates by periodically embedding Helmholtz resonators. *Journal of the Acoustical Society of America*, **2015**, 137, 273-80	2.2	101
27	Using simple shape three-dimensional rigid inclusions to enhance porous layer absorption. *Journal of the Acoustical Society of America*, **2014**, 136, 1139	2.2	57
26	Absorption of sound by porous layers with embedded periodic arrays of resonant inclusions. *Journal of the Acoustical Society of America*, **2013**, 134, 4670	2.2	97
25	Enhancing rigid frame porous layer absorption with three-dimensional periodic irregularities. *Journal of the Acoustical Society of America*, **2013**, 133, 821-31	2.2	11
24	Tunable acoustic waveguides in periodic arrays made of rigid square-rod scatterers: theory and experimental realization. *Journal Physics D: Applied Physics*, **2013**, 46, 305108	3	27
23	Sustainable sonic crystal made of resonating bamboo rods. *Journal of the Acoustical Society of America*, **2013**, 133, 247-54	2.2	44
22	A mode matching approach for modeling two dimensional porous grating with infinitely rigid or soft inclusions. *Journal of the Acoustical Society of America*, **2012**, 131, 3841-52	2.2	24
21	An application of the Peano series expansion to predict sound propagation in materials with continuous pore stratification. *Journal of the Acoustical Society of America*, **2012**, 132, 208-15	2.2	15
20	Scattering of acoustic waves by macroscopically inhomogeneous poroelastic tubes. *Journal of the Acoustical Society of America*, **2012**, 132, 477-86	2.2	4
19	Non-ambiguous recovery of Biot poroelastic parameters of cellular panels using ultrasonicwaves. *Journal of Sound and Vibration*, **2011**, 330, 1074-1090	3.9	24
18	Propagation of acoustic waves in a one-dimensional macroscopically inhomogeneous poroelastic material. *Journal of the Acoustical Society of America*, **2011**, 130, 1390-8	2.2	22
17	Enhancing the absorption coefficient of a backed rigid frame porous layer by embedding circular periodic inclusions. *Journal of the Acoustical Society of America*, **2011**, 130, 3771-80	2.2	49
16	Absorption of a rigid frame porous layer with periodic circular inclusions backed by a periodic grating. *Journal of the Acoustical Society of America*, **2011**, 129, 3035-46	2.2	27

No.	Title	IF	Citations
15	Prediction of sound reflection by corrugated porous surfaces. *Journal of the Acoustical Society of America*, **2011**, 129, 1696-706	2.2	8
14	Total absorption peak by use of a rigid frame porous layer backed by a rigid multi-irregularities grating. *Journal of the Acoustical Society of America*, **2010**, 127, 2865-74	2.2	26
13	Analytical method for the ultrasonic characterization of homogeneous rigid porous materials from transmitted and reflected coefficients. *Journal of the Acoustical Society of America*, **2010**, 127, 764-72	2.2	32
12	Acoustic response of a rigid-frame porous medium plate with a periodic set of inclusions. *Journal of the Acoustical Society of America*, **2009**, 126, 685-93	2.2	38
11	Seismic motion in urban sites consisting of blocks in welded contact with a soft layer overlying a hard half-space. *Geophysical Journal International*, **2008**, 172, 725-758	2.6	16
10	Reconstruction of material properties profiles in one-dimensional macroscopically inhomogeneous rigid frame porous media in the frequency domain. *Journal of the Acoustical Society of America*, **2008**, 124, 1591-606	2.2	10
9	Localization and characterization of simple defects in finite-sized photonic crystals. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2008**, 25, 146-52	1.8	19
8	Acoustic response of a periodic distribution of macroscopic inclusions within a rigid frame porous plate. *Waves in Random and Complex Media*, **2008**, 18, 409-433	1.9	17
7	Use of specific Green's functions for solving direct problems involving a heterogeneous rigid frame porous medium slab solicited by acoustic waves. *Mathematical Methods in the Applied Sciences*, **2007**, 30, 91-122	2.3	11
6	Acoustic wave propagation in a macroscopically inhomogeneous porous medium saturated by a fluid. *Applied Physics Letters*, **2007**, 90, 181901	3.4	30
5	Acoustic wave propagation and internal fields in rigid frame macroscopically inhomogeneous porous media. *Journal of Applied Physics*, **2007**, 102, 024910	2.5	12
4	A TIME DOMAIN METHOD FOR MODELING VISCOACOUSTIC WAVE PROPAGATION. *Journal of Computational Acoustics*, **2006**, 14, 201-236		16
3	Two-dimensional ground motion at a soft viscoelastic layer/hard substratum site in response to SH cylindrical seismic waves radiated by deep and shallow line sources-II. Numerical results. *Geophysical Journal International*, **2005**, 163, 192-224	2.6	8
2	Optimal absorption of flexural energy in thin plates by critically coupling a locally resonant grating. *Waves in Random and Complex Media*,1-23	1.9	2
1	Stealth and equiluminous materials for scattering cancellation and wave diffusion. *Waves in Random and Complex Media*,1-19	1.9	3