GwÃ©naÃ«l Gabard

List of Publications by Year
in descending order

52 papers	1,143 citations	448610 19 h-index	466096 32 g-index
54 all docs	54 docs citations	54 times ranked	578 citing authors

#	Article	IF	Citations
1	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.	2.1	14
2	Compact resonant systems for perfect and broadband sound absorption in wide waveguides in transmission problems. Scientific Reports, 2022, 12, .	1.6	9
3	Rapid additive manufacturing of optimized anisotropic metaporous surfaces for broadband absorption. Journal of Applied Physics, 2021, 129, 115102.	1.1	12
4	High-order X-FEM for the simulation of sound absorbing poro-elastic materials with coupling interfaces. Journal of Sound and Vibration, 2021, 510, 116262.	2.1	4
5	Numerical simulations of perforated plate liners: Analysis of the visco-thermal dissipation mechanisms. Journal of the Acoustical Society of America, 2021, 149, 16-27.	0.5	6
6	Asymmetric Metaporous Treatment: Optimization for Perfect Sound Absorption, 3D Printing, and Characterization with Air Flow. , 2021, , .		1
7	Optimal cavity shape design for acoustic liners using Helmholtz equation with visco-thermal losses. Journal of Computational Physics, 2020, 402, 109048.	1.9	11
8	A non-overlapping Schwarz domain decomposition method with high-order finite elements for flow acoustics. Computer Methods in Applied Mechanics and Engineering, 2020, 369, 113223.	3.4	6
9	90 Years of Galbrunâ€™s Equation: An Unusual Formulation for Aeroacoustics and Hydroacoustics in Terms of the Lagrangian Displacement. Journal of Theoretical and Computational Acoustics, 2020, 28, 2050017.	0.5	2
10	Graded and Anisotropic Porous Materials for Broadband and Angular Maximal Acoustic Absorption. Materials, 2020, 13, 4605.	1.3	14
11	Acoustic modeling of micro-lattices obtained by additive manufacturing. Applied Acoustics, 2020, 164, 107244.	1.7	39
12	Folded metaporous material for sub-wavelength and broadband perfect sound absorption. Applied Physics Letters, 2020, 117, .	1.5	23
13	Optimally graded porous material for broadband perfect absorption of sound. Journal of Applied Physics, 2019, 126, .	1.1	34
14	A Domain Decomposition Method with High-Order Finite Elements for Flow Acoustics. , 2019, , .		0
15	Hybrid numerical model for acoustic propagation through sheared flows. Journal of Sound and Vibration, 2019, 463, 114951.	2.1	4
16	General method to retrieve all effective acoustic properties of fully-anisotropic fluid materials in three dimensional space. Journal of Applied Physics, 2019, 125, 025114.	1.1	10
17	Acoustic wave propagation in effective graded fully anisotropic fluid layers. Journal of the Acoustical Society of America, 2019, 146, 3400-3408.	0.5	11
18	Anisotropic adaptivity of the p-FEM for time-harmonic acoustic wave propagation. Journal of Computational Physics, 2019, 378, 234-256.	1.9	21

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19	Spectral broadening of acoustic waves by convected vortices. Journal of Fluid Mechanics, 2018, 841, 50-80.	1.4	13
20	Nonlinear Propagation of Supersonic Fan Tones in Turbofan Intake Ducts. AIAA Journal, 2018, 56, 316-328.	1.5	8
21	Coupling of finite element and plane waves discontinuous Galerkin methods for timeâ€harmonic problems. International Journal for Numerical Methods in Engineering, 2018, 116, 487-503.	1.5	4
22	Adaptive, High-Order Finite-Element Method for Convected Acoustics. AIAA Journal, 2018, 56, 3179-3191.	1.5	11
23	High-order 2D mesh curving methods with a piecewise linear target and application to Helmholtz problems. CAD Computer Aided Design, 2018, 105, 26-41.	1.4	3
24	Comparison of 2D boundary curving methods with modal shape functions and a piecewise linear target mesh. Procedia Engineering, 2017, 203, 91-101.	1.2	7
25	Efficient implementation of highâ€order finite elements for Helmholtz problems. International Journal for Numerical Methods in Engineering, 2016, 106, 213-240.	1.5	79
26	Time-domain implementation of an impedance boundary condition with boundary layer correction. Journal of Computational Physics, 2016, 321, 755-775.	1.9	11
27	An integral formulation for wave propagation on weakly non-uniform potential flows. Journal of Sound and Vibration, 2016, 385, 184-201.	2.1	22
28	Boundary layer effects on liners for aircraft engines. Journal of Sound and Vibration, 2016, 381, 30-47.	2.1	20
29	A High-Order Finite Element Method for the Linearised Euler Equations. Acta Acustica United With Acustica, 2016, 102, 813-823.	0.8	7
30	A comparison of high-order polynomial and wave-based methods for Helmholtz problems. Journal of Computational Physics, 2016, 321, 105-125.	1.9	39
31	A discontinuous Galerkin method with plane waves for soundâ€absorbing materials. International Journal for Numerical Methods in Engineering, 2015, 104, 1115-1138.	1.5	9
32	Performance of the DGM for the Linearized Euler Equations With Non-Uniform Mean-Flow. , 2015, , .		2
33	Reflection of an acoustic line source by an impedance surface with uniform flow. Journal of Sound and Vibration, 2014, 333, 5548-5565.	2.1	10
34	Noise Sources for Duct Acoustics Simulations: Broadband Noise and Tones. AIAA Journal, 2014, 52, 1994-2006.	1.5	11
35	A full discrete dispersion analysis of time-domain simulations of acoustic liners with flow. Journal of Computational Physics, 2014, 273, 310-326.	1.9	22
36	A comparison of impedance boundary conditions for flow acoustics. Journal of Sound and Vibration, 2013, 332, 714-724.	2.1	76

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37	Analysis of highâ€order finite elements for convected wave propagation. International Journal for Numerical Methods in Engineering, 2013, 96, 665-688.	1.5	22
38	Random particle methods applied to broadband fan interaction noise. Journal of Computational Physics, 2012, 231, 8133-8151.	1.9	38
39	The effects of viscosity on sound radiation near solid surfaces. Journal of Fluid Mechanics, 2012, 690, 441-460.	1.4	6
40	A comparison of waveâ€based discontinuous Galerkin, ultraâ€weak and leastâ€square methods for wave problems. International Journal for Numerical Methods in Engineering, 2011, 85, 380-402.	1.5	26
41	Reprint of: Physics-Based Computational Methods for Aero-Acoustics. Procedia IUTAM, 2010, 1, 183-192.	1.2	0
42	An indirect method for the characterization of locally reacting liners. Journal of the Acoustical Society of America, 2010, 127, 3548-3559.	0.5	21
43	Exact integration of polynomialâ€“exponential products with application to waveâ€based numerical methods. Communications in Numerical Methods in Engineering, 2009, 25, 237-246.	1.3	18
44	A computational mode-matching approach for sound propagation in three-dimensional ducts with flow. Journal of Sound and Vibration, 2008, 315, 1103-1124.	2.1	82
45	Near- to far-field characteristics of acoustic radiation through plug flow jets. Journal of the Acoustical Society of America, 2008, 124, 2755-2766.	0.5	5
46	Discontinuous Galerkin methods with plane waves for time-harmonic problems. Journal of Computational Physics, 2007, 225, 1961-1984.	1.9	74
47	Theoretical model for sound radiation from annular jet pipes: far- and near-field solutions. Journal of Fluid Mechanics, 2006, 549, 315.	1.4	167
48	Discontinuous Galerkin methods with plane waves for the displacement-based acoustic equation. International Journal for Numerical Methods in Engineering, 2006, 66, 549-569.	1.5	10
49	Stability and accuracy of finite element methods for flow acoustics. I: general theory and application to one-dimensional propagation. International Journal for Numerical Methods in Engineering, 2005, 63, 947-973.	1.5	29
50	Stability and accuracy of finite element methods for flow acoustics. II: Two-dimensional effects. International Journal for Numerical Methods in Engineering, 2005, 63, 974-987.	1.5	13
51	A numerical method for vibro-acoustic problems with sheared mean flows. Journal of Sound and Vibration, 2004, 272, 991-1011.	2.1	16
52	A mixed finite element method for acoustic wave propagation in moving fluids based on an Eulerianâ€“Lagrangian description. Journal of the Acoustical Society of America, 2003, 113, 705-716.	0.5	40