

Elke Deckers

List of Publications by Year in Descending Order

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Version: 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

49
papers

626
citations

15
h-index

23
g-index

63
ext. papers

792
ext. citations

4.2
avg, IF

4.23
L-index

#	Paper	IF	Citations
49	Impact of the Unit Cell Choice on the Efficiency of Dispersion Curve Calculations Using Generalized Bloch Mode Synthesis. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2022 , 144,	1.6	1
48	A hierarchical quantification of inter- & intra-batch vibro-acoustic variability of deep drawn parts. <i>Applied Acoustics</i> , 2022 , 192, 108702	3.1	
47	Black box stability preserving reduction techniques in the Loewner framework for the efficient time domain simulation of dynamical systems with damping treatments. <i>Journal of Sound and Vibration</i> , 2022 , 529, 116922	3.9	0
46	Automatic model order reduction for systems with frequency-dependent material properties. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022 , 397, 115076	5.7	0
45	Low frequency tyre noise mitigation in a vehicle using metal 3D printed resonant metamaterials. <i>Mechanical Systems and Signal Processing</i> , 2022 , 179, 109335	7.8	1
44	Vibro-Acoustic Metamaterials for Improved Interior NVH Performance in Vehicles. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2021 , 31-51	0.4	1
43	Angle-dependent reflection, transmission and absorption coefficients measurement using a 2D waveguide. <i>Applied Acoustics</i> , 2021 , 177, 107946	3.1	
42	Formulation and validation of the shift cell technique for acoustic applications of poro-elastic materials described by the Biot theory. <i>Mechanical Systems and Signal Processing</i> , 2021 , 147, 107089	7.8	5
41	Incommensurate vibro-acoustic performance due to in-process blank holder force variation during deep drawing process. <i>Applied Acoustics</i> , 2021 , 172, 107618	3.1	2
40	On the assembly of Archimedean spiral cavities for sound absorption applications: Design, optimization and experimental validation. <i>Mechanical Systems and Signal Processing</i> , 2021 , 147, 107102	7.8	5
39	An Automatic Krylov subspaces Recycling technique for the construction of a global solution basis of non-affine parametric linear systems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021 , 373, 113510	5.7	1
38	Influence of boundary conditions on the stop band effect in finite locally resonant metamaterial beams. <i>Journal of Sound and Vibration</i> , 2020 , 473, 115225	3.9	16
37	Selection of Small Sensor Arrays for Localization of Damage in Complex Assemblies Using Vibro-Acoustic Signals. <i>Lecture Notes in Mechanical Engineering</i> , 2020 , 263-282	0.4	
36	Krylov subspaces recycling based model order reduction for acoustic BEM systems and an error estimator. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020 , 359, 112755	5.7	7
35	Applications of an isogeometric indirect boundary element method and the importance of accurate geometrical representation in acoustic problems. <i>Engineering Analysis With Boundary Elements</i> , 2020 , 110, 124-136	2.6	3
34	Reproducibility of sound-absorbing periodic porous materials using additive manufacturing technologies: Round robin study. <i>Additive Manufacturing</i> , 2020 , 36, 101564	6.1	13
33	The impact of damping on the sound transmission loss of locally resonant metamaterial plates. <i>Journal of Sound and Vibration</i> , 2019 , 461, 114909	3.9	21

32	Loose bolt detection in a complex assembly using a vibro-acoustic sensor array. <i>Mechanical Systems and Signal Processing</i> , 2019 , 130, 433-451	7.8	7
31	A study of vibro-acoustic behaviour variation of thin sheet metal components manufactured through deep drawing process. <i>Applied Acoustics</i> , 2019 , 153, 110-126	3.1	3
30	The acoustic insulation performance of infinite and finite locally resonant metamaterial and phononic crystal plates. <i>MATEC Web of Conferences</i> , 2019 , 283, 09003	0.3	1
29	Sound absorption of plates with micro-slits backed with air cavities: Analytical estimations, numerical calculations and experimental validations. <i>Applied Acoustics</i> , 2019 , 146, 261-279	3.1	16
28	Obtaining manufactured geometries of deep-drawn components through a model updating procedure using geometric shape parameters. <i>Mechanical Systems and Signal Processing</i> , 2018 , 98, 382-401	7.8	7
27	The effect of generalised force correlations on the response statistics of a harmonically driven random system. <i>Journal of Sound and Vibration</i> , 2018 , 413, 456-466	3.9	3
26	Force Isolation by Locally Resonant Metamaterials to Reduce NVH 2018 ,		4
25	Prediction of transmission, reflection and absorption coefficients of periodic structures using a hybrid Wave Based Finite Element unit cell method. <i>Journal of Computational Physics</i> , 2018 , 356, 282-302	4.1	10
24	Probability that a band-gap extremum is located on the irreducible Brillouin-zone contour for the 17 different plane crystallographic lattices. <i>International Journal of Solids and Structures</i> , 2018 , 135, 26-36	3.1	34
23	Non-destructive testing based on vibrations in the low to mid-frequency range. <i>MATEC Web of Conferences</i> , 2018 , 211, 21001	0.3	
22	On the impact of damping on the dispersion curves of a locally resonant metamaterial: Modelling and experimental validation. <i>Journal of Sound and Vibration</i> , 2017 , 409, 1-23	3.9	48
21	A flexible approach for coupling NURBS patches in rotationless isogeometric analysis of KirchhoffLove shells. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2017 , 325, 505-531	5.7	23
20	Non-destructive structural integrity testing of finite plates based on the wave scattering at defects with sub-wavelength size. <i>Procedia Engineering</i> , 2017 , 199, 2020-2025		1
19	Design and validation of metamaterials for multiple structural stop bands in waveguides. <i>Extreme Mechanics Letters</i> , 2017 , 12, 7-22	3.9	45
18	Dynamic Metamaterials for Structural Stopband Creation. <i>SAE International Journal of Passenger Cars - Mechanical Systems</i> , 2016 , 9, 1013-1019	0.3	4
17	A performance study of NURBS-based isogeometric analysis for interior two-dimensional time-harmonic acoustics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 305, 441-467	5.7	38
16	A wave based method to predict the absorption, reflection and transmission coefficient of two-dimensional rigid frame porous structures with periodic inclusions. <i>Journal of Computational Physics</i> , 2016 , 312, 115-138	4.1	10
15	A direct hybrid finite elementWave based modelling technique for efficient analysis of poroelastic materials in steady-state acoustic problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 304, 55-80	5.7	6

14	Global optimisation methods for poroelastic material characterisation using a clamped sample in a Kundt tube setup. <i>Mechanical Systems and Signal Processing</i> , 2016 , 68-69, 462-478	7.8	12
13	Acoustic behavior of a rigidly backed poroelastic layer with periodic resonant inclusions by a multiple scattering approach. <i>Journal of the Acoustical Society of America</i> , 2016 , 139, 617-29	2.2	32
12	Bloch theorem for isogeometric analysis of periodic problems governed by high-order partial differential equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016 , 311, 743-763	5.7	10
11	Modelling Techniques for Vibro-Acoustic Dynamics of Poroelastic Materials. <i>Archives of Computational Methods in Engineering</i> , 2015 , 22, 183-236	7.8	15
10	A hybrid Boundary Element-Wave Based Method for an efficient solution of bounded acoustic problems with inclusions. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015 , 283, 1260-1277	5.7	5
9	An explicit Wave based model as alternative to the DtN map for solving unbounded Helmholtz problems with the finite element method. <i>Engineering Analysis With Boundary Elements</i> , 2015 , 55, 58-66	2.6	4
8	The wave based method: An overview of 15 years of research. <i>Wave Motion</i> , 2014 , 51, 550-565	1.8	68
7	A direct hybrid Finite Element Wave Based Method for the steady-state analysis of acoustic cavities with poro-elastic damping layers using the coupled Helmholtz-Biot equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013 , 263, 144-157	5.7	17
6	A Wave Based Method for the axisymmetric dynamic analysis of acoustic and poroelastic problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013 , 257, 1-16	5.7	16
5	An efficient Wave Based Method for solving Helmholtz problems in three-dimensional bounded domains. <i>Engineering Analysis With Boundary Elements</i> , 2012 , 36, 63-75	2.6	42
4	An efficient Wave Based Method for 2D acoustic problems containing corner singularities. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012 , 241-244, 286-301	5.7	15
3	A Wave Based Method for the efficient solution of the 2D poroelastic Biot equations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2012 , 201-204, 245-262	5.7	30
2	Efficient treatment of stress singularities in poroelastic wave based models using special purpose enrichment functions. <i>Computers and Structures</i> , 2011 , 89, 1117-1130	4.5	16
1	Reducing Vehicle Interior NVH by Means of Locally Resonant Metamaterial Patches on Rear Shock Towers		5