Cã©dric Bellis

List of Publications by Year
in descending order

23	261	933447	996975
23 papers	261 citations	10 h-index	15 g-index
23 all docs	23 docs citations	23 times ranked	220 citing authors

#	Article	IF	Citations
1	Homogenization of frame lattices leading to second gradient models coupling classical strain and strain-gradient terms. Mathematics and Mechanics of Solids, 2019, 24, 3976-3999.	2.4	37
2	Simulating transient wave phenomena in acoustic metamaterials using auxiliary fields. Wave Motion, 2019, 86, 175-194.	2.0	24
3	A FEM-based topological sensitivity approach for fast qualitative identification of buried cavities from elastodynamic overdetermined boundary data. International Journal of Solids and Structures, 2010, 47, 1221-1242.	2.7	21
4	Reconstruction of constitutive parameters in isotropic linear elasticity from noisy full-field measurements. Inverse Problems, 2014, 30, 125004.	2.0	19
5	On the Existence and Uniqueness of a Solution to the Interior Transmission Problem for Piecewise-Homogeneous Solids. Journal of Elasticity, 2010, 101, 29-57.	1.9	15
6	Qualitative identification of cracks using 3D transient elastodynamic topological derivative: Formulation and FE implementation. Computer Methods in Applied Mechanics and Engineering, 2013, 253, 89-105.	6.6	14
7	High Speed EIT With Multifrequency Excitation Using FPGA and Response Analysis Using FDM. IEEE Sensors Journal, 2020, 20, 8698-8710.	4.7	14
8	On the Implementation of Simultaneous Multi-Frequency Excitations and Measurements for Electrical Impedance Tomography. Sensors, 2019, 19, 3679.	3.8	13
9	Effective Resonant Model and Simulations in the Time-Domain of Wave Scattering from a Periodic Row of Highly-Contrasted Inclusions. Journal of Elasticity, 2020, 142, 53-82.	1.9	13
10	Improving EIT-Based Visualizations of Two-Phase Flows Using an Eigenvalue Correlation Method. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	12
11	Effective dynamics for low-amplitude transient elastic waves in a 1D periodic array of non-linear interfaces. Journal of the Mechanics and Physics of Solids, 2021, 149, 104321.	4.8	12
12	Eigendecomposition-based convergence analysis of the Neumann series for laminated composites and discretization error estimation. International Journal for Numerical Methods in Engineering, 2020, 121, 201-232.	2.8	10
13	Tuning effective dynamical properties of periodic media by FFT-accelerated topological optimization. International Journal for Numerical Methods in Engineering, 2020, 121, 3178-3205.	2.8	10
14	Geometric Variational Principles for Computational Homogenization. Journal of Elasticity, 2019, 137, 119-149.	1.9	8
15	Time-domain simulation of wave propagation across resonant meta-interfaces. Journal of Computational Physics, 2020, 414, 109474.	3.8	8
16	Apposition of the topological sensitivity and linear sampling approaches to inverse scattering. Wave Motion, 2013, 50, 891-908.	2.0	7
17	Dynamical one-dimensional models of passive piezoelectric sensors. Mathematics and Mechanics of Solids, 2014, 19, 451-476.	2.4	6
18	Practical comparisons of EIT excitation protocols with applications in high-contrast imaging. Measurement Science and Technology, 2021, 32, 085110.	2.6	6

#	Article	IF	Citations
19	A full-field image conversion method for the inverse conductivity problem with internal measurements. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150488.	2.1	5
20	High-frequency homogenization in periodic media with imperfect interfaces. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200402.	2.1	4
21	Converting strain maps into elasticity maps for materials with small contrast. Journal of the Mechanics and Physics of Solids, 2017, 98, 411-428.	4.8	2
22	FFT-based computation of homogenized interface parameters. Comptes Rendus - Mecanique, 2022, 350, 297-307.	0.7	1
23	Reconstructing material properties by deconvolution of full-field measurement images: The conductivity case. Inverse Problems, 2017, 33, 035012.	2.0	0