Bruno Lombard

List of Publications by Year
in descending order

38 papers	607 citations	516710 16 h-index	642732 23 g-index
41 all docs	41 docs citations	41 times ranked	416 citing authors

#	Article	IF	Citations
1	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
2	Damping in a row of locally-resonant inclusions: Dynamic homogenization and scattering of transient shear waves. Wave Motion, 2021, 107, 102811.	2.0	1
3	Analysis of a Sugimoto Model of Nonlinear Acoustics in an Array of Helmholtz Resonators. SIAM Journal on Applied Mathematics, 2020, 80, 1704-1722.	1.8	4
4	Dynamics of a regularized and bistable Ericksen bar using an extended Lagrangian approach. International Journal of Solids and Structures, 2020, 207, 55-69.	2.7	2
5	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
6	Time-domain simulation of wave propagation across resonant meta-interfaces. Journal of Computational Physics, 2020, 414, 109474.	3.8	8
7	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
8	Simulating transient wave phenomena in acoustic metamaterials using auxiliary fields. Wave Motion, 2019, 86, 175-194.	2.0	24
9	Plane-strain waves in nonlinear elastic solids with softening. Wave Motion, 2019, 89, 65-78.	2.0	8
10	Continuation of periodic solutions for systems with fractional derivatives. Nonlinear Dynamics, 2019, 95, 479-493.	5.2	10
11	Modeling longitudinal wave propagation in nonlinear viscoelastic solids with softening. International Journal of Solids and Structures, 2018, 141-142, 35-44.	2.7	7
12	Internal-variable modeling of solids with slow dynamics: Wave propagation and resonance simulations. Proceedings of Meetings on Acoustics, 2018, , .	0.3	0
13	Numerical modeling of the acoustic wave propagation across a homogenized rigid microstructure in the time domain. Journal of Computational Physics, 2017, 335, 558-577.	3.8	12
14	A two-way model for nonlinear acoustic waves in a non-uniform lattice of Helmholtz resonators. Wave Motion, 2017, 72, 260-275.	2.0	3
15	Nonlinear waves in solids with slow dynamics: an internal-variable model. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170024.	2.1	9
16	Analytical solution to 1D nonlinear elastodynamics with general constitutive laws. Wave Motion, 2017, 74, 35-55.	2.0	11
17	Diffusive Approximation of a Time-Fractional Burger's Equation in Nonlinear Acoustics. SIAM Journal on Applied Mathematics, 2016, 76, 1765-1791.	1.8	18
18	Fast and slow dynamics in a nonlinear elastic bar excited by longitudinal vibrations. Wave Motion, 2015, 56, 221-238.	2.0	25

#	Article	IF	Citations
19	Generation of acoustic solitary waves in a lattice of Helmholtz resonators. Wave Motion, 2015, 56, 85-99.	2.0	21
20	Passive models of viscothermal wave propagation in acoustic tubes. Journal of the Acoustical Society of America, 2015, 138, 555-558.	1.1	6
21	Numerical modeling of nonlinear acoustic waves in a tube connected with Helmholtz resonators. Journal of Computational Physics, 2014, 259, 421-443.	3.8	17
22	Wave simulation in 2D heterogeneous transversely isotropic porous media with fractional attenuation: A Cartesian grid approach. Journal of Computational Physics, 2014, 275, 118-142.	3.8	15
23	Biot-JKD model: Simulation of 1D transient poroelastic waves with fractional derivatives. Journal of Computational Physics, 2013, 237, 1-20.	3.8	34
24	A time-domain numerical modeling of two-dimensional wave propagation in porous media with frequency-dependent dynamic permeability. Journal of the Acoustical Society of America, 2013, 134, 4610-4623.	1.1	25
25	Wave Propagation Across Acoustic/Biotâ€™s Media: A Finite-Difference Method. Communications in Computational Physics, 2013, 13, 985-1012.	1.7	20
26	INTERACTION BETWEEN PERIODIC ELASTIC WAVES AND TWO CONTACT NONLINEARITIES. Mathematical Models and Methods in Applied Sciences, 2012, 22, 1150022.	3.3	10
27	Time-domain numerical simulations of multiple scattering to extract elastic effective wavenumbers. Waves in Random and Complex Media, 2012, 22, 398-422.	2.7	21
28	Semi-analytical and numerical methods for computing transient waves in 2D acoustic/poroelastic stratified media. Wave Motion, 2012, 49, 667-680.	2.0	21
29	Time domain numerical modeling of wave propagation in 2D heterogeneous porous media. Journal of Computational Physics, 2011, 230, 5288-5309.	3.8	26
30	Numerical modeling of transient two-dimensional viscoelastic waves. Journal of Computational Physics, 2011, 230, 6099-6114.	3.8	25
31	Numerical modeling of 1D transient poroelastic waves in the low-frequency range. Journal of Computational and Applied Mathematics, 2010, 234, 1757-1765.	2.0	8
32	Dilatation of a One-Dimensional Nonlinear Crack Impacted by a Periodic Elastic Wave. SIAM Journal on Applied Mathematics, 2009, 70, 735-761.	1.8	5
33	Modeling 1-D elastic P-waves in a fractured rock with hyperbolic jump conditions. Journal of Computational and Applied Mathematics, 2007, 204, 292-305.	2.0	6
34	Numerical modeling of elastic waves across imperfect contacts.. SIAM Journal of Scientific Computing, 2006, 28, 172-205.	2.8	17
35	The Explicit Simplified Interface Method for Compressible Multicomponent Flows. SIAM Journal of Scientific Computing, 2005, 27, 208-230.	2.8	7
36	Numerical treatment of two-dimensional interfaces for acoustic and elastic waves. Journal of Computational Physics, 2004, 195, 90-116.	3.8	92

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37	How to Incorporate the Spring-Mass Conditions in Finite-Difference Schemes. SIAM Journal of Scientific Computing, 2003, 24, 1379-1407.	2.8	19
38	A New Interface Method for Hyperbolic Problems with Discontinuous Coefficients: One-Dimensional Acoustic Example. Journal of Computational Physics, 2001, 168, 227-248.	3.8	40