Bruno Lombard

List of Publications by Year
in descending order

38	607	516710 16	642732 23
papers	citations	h-index	g-index

41	41	41	416
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical treatment of two-dimensional interfaces for acoustic and elastic waves. Journal of Computational Physics, 2004, 195, 90-116.	3.8	92
2	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
3	Biot-JKD model: Simulation of 1D transient poroelastic waves with fractional derivatives. Journal of Computational Physics, 2013, 237, 1-20.	3.8	34
4	Time domain numerical modeling of wave propagation in 2D heterogeneous porous media. Journal of Computational Physics, 2011, 230, 5288-5309.	3.8	26
5	Numerical modeling of transient two-dimensional viscoelastic waves. Journal of Computational Physics, 2011, 230, 6099-6114.	3.8	25
6	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
7	Fast and slow dynamics in a nonlinear elastic bar excited by longitudinal vibrations. Wave Motion, 2015, 56, 221-238.	2.0	25
8	Simulating transient wave phenomena in acoustic metamaterials using auxiliary fields. Wave Motion, 2019, 86, 175-194.	2.0	24
9	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
10	Semi-analytical and numerical methods for computing transient waves in 2D acoustic/poroelastic stratified media. Wave Motion, 2012, 49, 667-680.	2.0	21
11	Generation of acoustic solitary waves in a lattice of Helmholtz resonators. Wave Motion, 2015, 56, 85-99.	2.0	21
12	Wave Propagation Across Acoustic/Biotâ€™s Media: A Finite-Difference Method. Communications in Computational Physics, 2013, 13, 985-1012.	1.7	20
13	How to Incorporate the Spring-Mass Conditions in Finite-Difference Schemes. SIAM Journal of Scientific Computing, 2003, 24, 1379-1407.	2.8	19
14	Diffusive Approximation of a Time-Fractional Burger's Equation in Nonlinear Acoustics. SIAM Journal on Applied Mathematics, 2016, 76, 1765-1791.	1.8	18
15	Numerical modeling of elastic waves across imperfect contacts.. SIAM Journal of Scientific Computing, 2006, 28, 172-205.	2.8	17
16	Numerical modeling of nonlinear acoustic waves in a tube connected with Helmholtz resonators. Journal of Computational Physics, 2014, 259, 421-443.	3.8	17
17	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
18	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

#	Article	IF	Citations
19	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
20	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
21	Analytical solution to 1D nonlinear elastodynamics with general constitutive laws. Wave Motion, 2017, 74, 35-55.	2.0	11
22	INTERACTION BETWEEN PERIODIC ELASTIC WAVES AND TWO CONTACT NONLINEARITIES. Mathematical Models and Methods in Applied Sciences, 2012, 22, 1150022.	3.3	10
23	Continuation of periodic solutions for systems with fractional derivatives. Nonlinear Dynamics, 2019, 95, 479-493.	5.2	10
24	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
25	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
26	Plane-strain waves in nonlinear elastic solids with softening. Wave Motion, 2019, 89, 65-78.	2.0	8
27	Time-domain simulation of wave propagation across resonant meta-interfaces. Journal of Computational Physics, 2020, 414, 109474.	3.8	8
28	The Explicit Simplified Interface Method for Compressible Multicomponent Flows. SIAM Journal of Scientific Computing, 2005, 27, 208-230.	2.8	7
29	Modeling longitudinal wave propagation in nonlinear viscoelastic solids with softening. International Journal of Solids and Structures, 2018, 141-142, 35-44.	2.7	7
30	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
31	Passive models of viscothermal wave propagation in acoustic tubes. Journal of the Acoustical Society of America, 2015, 138, 555-558.	1.1	6
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	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
34	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
35	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
36	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

#	Article	IF	Citations
37	Damping in a row of locally-resonant inclusions: Dynamic homogenization and scattering of transient shear waves. Wave Motion, 2021, 107, 102811.	2.0	1
38	Internal-variable modeling of solids with slow dynamics: Wave propagation and resonance simulations. Proceedings of Meetings on Acoustics, 2018, , .	0.3	0