David L Henann

List of Publications by Year
in descending order

26 papers	1,110 citations	516710 16 h-index	552781 26 g-index
26 all docs	26 docs citations	26 times ranked	975 citing authors

#	Article	IF	Citations
1	A predictive, size-dependent continuum model for dense granular flows. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6730-6735.	7.1	250
2	Nonlocal modeling of granular flows down inclines. Soft Matter, 2015, 11, 179-185.	2.7	112
3	Modeling of dielectric elastomers: Design of actuators and energy harvesting devices. Journal of the Mechanics and Physics of Solids, 2013, 61, 2047-2066.	4.8	107
4	High strain-rate soft material characterization via inertial cavitation. Journal of the Mechanics and Physics of Solids, 2018, 112, 291-317.	4.8	96
5	Continuum Modeling of Secondary Rheology in Dense Granular Materials. Physical Review Letters, 2014, 113, 178001.	7.8	70
6	Modeling of dielectric viscoelastomers with application to electromechanical instabilities. Journal of the Mechanics and Physics of Solids, 2016, 95, 213-229.	4.8	66
7	Continuum thermomechanics of the nonlocal granular rheology. International Journal of Plasticity, 2014, 60, 145-162.	8.8	54
8	Modeling of elasto-capillary phenomena. Soft Matter, 2014, 10, 709-717.	2.7	50
9	3D Viscoelastic traction force microscopy. Soft Matter, 2014, 10, 8095-8106.	2.7	43
10	Modeling tissue-selective cavitation damage. Physics in Medicine and Biology, 2019, 64, 225001.	3.0	41
11	Comparative study of the dynamics of laser and acoustically generated bubbles in viscoelastic media. Physical Review E, 2019, 99, 043103.	2.1	29
12	A numerical simulation capability for electroelastic wave propagation in dielectric elastomer composites: Application to tunable soft phononic crystals. International Journal of Solids and Structures, 2018, 150, 1-21.	2.7	28
13	Experimental characterization and hyperelastic constitutive modeling of open-cell elastomeric foams. Journal of the Mechanics and Physics of Solids, 2019, 133, 103701.	4.8	26
14	Non-local continuum modelling of steady, denseÂgranular heap flows. Journal of Fluid Mechanics, 2017, 831, 212-227.	3.4	25
15	Finite-element modeling of soft solids with liquid inclusions. Extreme Mechanics Letters, 2016, 9, 147-157.	4.1	23
16	A finite element implementation of the nonlocal granular rheology. International Journal for Numerical Methods in Engineering, 2016, 108, 273-302.	2.8	22
17	Size-dependence of the flow threshold in dense granular materials. Soft Matter, 2018, 14, 5294-5305.	2.7	18
18	Material stability and instability in non-local continuum models for dense granular materials. Journal of Fluid Mechanics, 2019, 871, 799-830.	3.4	10

#	Article	IF	Citations
19	Large-deformation constitutive modeling of viscoelastic foams: Application to a closed-cell foam material. Journal of the Mechanics and Physics of Solids, 2022, 161, 104807.	4.8	8
20	A Large Strain Isotropic Elasticity Model Based onÂMolecular Dynamics Simulations of a Metallic Glass. Journal of Elasticity, 2011, 104, 281-302.	1.9	7
21	Predicting complex nonspherical instability shapes of inertial cavitation bubbles in viscoelastic soft matter. Physical Review E, 2021, 104, 045108.	2.1	7
22	Small-amplitude acoustics in bulk granular media. Physical Review E, 2013, 88, 042205.	2.1	4
23	Nonlocal continuum modeling of dense granular flow in a split-bottom cell with a vane-shaped intruder. Physical Review E, 2020, 102, 022908.	2.1	4
24	Dynamic shearing resistance of hydroxyl-terminated polybutadiene (HTPB). Journal of Applied Physics, 2021, 129, 245901.	2.5	4
25	Electromechanical instabilities in periodic dielectric elastomer composites. International Journal of Solids and Structures, 2020, 191-192, 220-242.	2.7	3
26	Dynamic Shearing Resistance of an Energetic Material Simulant: Sucrose. Journal of the Mechanics and Physics of Solids, 2021, 159, 104624.	4.8	3