Mauricio Lobos FernÃ¡ndez

List of Publications by Year
in descending order

19 papers	314 citations	933410 10 h-index	940516 16 g-index
19 all docs	19 docs citations	19 times ranked	197 citing authors

#	Article	IF	Citations
1	Polyconvex anisotropic hyperelasticity with neural networks. Journal of the Mechanics and Physics of Solids, 2022, 159, 104703.	4.8	55
2	Application of artificial neural networks for the prediction of interface mechanics: a study on grain boundary constitutive behavior. Advanced Modeling and Simulation in Engineering Sciences, 2020, 7, .	1.7	51
3	On-the-Fly Adaptivity for Nonlinear Twoscale Simulations Using Artificial Neural Networks and Reduced Order Modeling. Frontiers in Materials, 2019, 6, .	2.4	47
4	Anisotropic hyperelastic constitutive models for finite deformations combining material theory and data-driven approaches with application to cubic lattice metamaterials. Computational Mechanics, 2021, 67, 653-677.	4.0	30
5	Representation of Hashin–Shtrikman bounds of cubic crystal aggregates in terms of texture coefficients with application in materials design. Acta Materialia, 2014, 67, 324-334.	7.9	27
6	Representation of Hashin–Shtrikman Bounds in Terms of Texture Coefficients for Arbitrarily Anisotropic Polycrystalline Materials. Journal of Elasticity, 2019, 134, 1-38.	1.9	19
7	Material modeling for parametric, anisotropic finite strain hyperelasticity based on machine learning with application in optimization of metamaterials. International Journal for Numerical Methods in Engineering, 2022, 123, 577-609.	2.8	19
8	Materials design for the anisotropic linear elastic properties of textured cubic crystal aggregates using zeroth-, first- and second-order bounds. International Journal of Mechanics and Materials in Design, 2015, 11, 59-78.	3.0	12
9	Homogenization and Materials Design of Anisotropic Multiphase Linear Elastic Materials Using Central Model Functions. Journal of Elasticity, 2017, 128, 17-60.	1.9	12
10	Nonlinear multiscale simulation of elastic beam lattices with anisotropic homogenized constitutive models based on artificial neural networks. Computational Mechanics, 2021, 68, 1111-1130.	4.0	12
11	On optimal zeroth-order bounds of linear elastic properties of multiphase materials and application in materials design. International Journal of Solids and Structures, 2016, 84, 40-48.	2.7	11
12	On the limiting of vibration amplitudes by a sequential friction-spring element. Journal of Sound and Vibration, 2014, 333, 5970-5979.	3.9	8
13	Hashin-Shtrikman bounds with eigenfields in terms of texture coefficients for polycrystalline materials. Acta Materialia, 2019, 165, 686-697.	7.9	5
14	Microstructure impact on the machining of two gear steels. Part 1: Derivation of effective flow curves. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 845, 143125.	5.6	3
15	Materials design of elastic properties of multiphase polycrystalline composites using model functions. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 459-460.	0.2	2
16	On the generation of periodic discrete structures with identical two-point correlation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200568.	2.1	1
17	Bounds and an isotropically self-consistent singular approximation of the linear elastic properties of cubic crystal aggregates for application in materials design. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 533-534.	0.2	0
18	On the Orientation Average Based on Central Orientation Density Functions for Polycrystalline Materials. Journal of Elasticity, 2020, 139, 331-357.	1.9	0

#	Article	IF	Citations
19	Construction of a Class of Sharp Löwner Majorants for a Set of Symmetric Matrices. Journal of Applied Mathematics, 2020, 2020, 1-18.	0.9	0