MartÃ-n Ignacio Idiart

List of Publications by Year
in descending order

34 papers	460 citations	840776 11 h-index	713466 21 g-index
34 all docs	34 docs citations	34 times ranked	305 citing authors

#	Article	IF	Citations
1	Cavitation in elastomeric solids: Iâ€”A defect-growth theory. Journal of the Mechanics and Physics of Solids, 2011, 59, 1464-1487.	4.8	81
2	Field statistics in nonlinear composites. I. Theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 183-202.	2.1	54
3	Fiber-reinforced hyperelastic solids: a realizable homogenization constitutive theory. Journal of Engineering Mathematics, 2010, 68, 57-83.	1.2	47
4	Modeling the macroscopic behavior of two-phase nonlinear composites by infinite-rank laminates. Journal of the Mechanics and Physics of Solids, 2008, 56, 2599-2617.	4.8	43
5	An Exact Result for the Macroscopic Response of Porous Neo-Hookean Solids. Journal of Elasticity, 2009, 95, 99-105.	1.9	29
6	Variational linear comparison bounds for nonlinear composites with anisotropic phases. I. General results. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 907-924.	2.1	27
7	Second-order estimates for nonlinear isotropic composites with spherical pores and rigid particles. Comptes Rendus - Mecanique, 2005, 333, 147-154.	2.1	21
8	Effects of internal pore pressure on closed-cell elastomeric foams. International Journal of Solids and Structures, 2012, 49, 2793-2798.	2.7	18
9	Estimates for the overall linear properties of pointwise heterogeneous solids with application to elasto-viscoplasticity. Journal of the Mechanics and Physics of Solids, 2016, 97, 317-332.	4.8	16
10	The macroscopic behavior of power-law and ideally plastic materials with elliptical distribution of porosity. Mechanics Research Communications, 2008, 35, 583-588.	1.8	14
11	Nonlinear sequential laminates reproducing hollow sphere assemblages. Comptes Rendus - Mecanique, 2007, 335, 363-368.	2.1	13
12	Viscoplasticity of voided cubic crystals under hydrostatic loading. International Journal of Solids and Structures, 2018, 147, 156-165.	2.7	9
13	Modeling two-phase ferroelectric composites by sequential laminates. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 025010.	2.0	8
14	Porous polycrystal plasticity modeling of neutron-irradiated austenitic stainless steels. Journal of Nuclear Materials, 2020, 542, 152463.	2.7	8
15	On the overall response of elastomeric solids with pressurized cavities. Comptes Rendus - Mecanique, 2012, 340, 359-368.	2.1	7
16	A model problem concerning ionic transport in microstructured solid electrolytes. Continuum Mechanics and Thermodynamics, 2015, 27, 941-957.	2.2	7
17	A phenomenological constitutive theory for polycrystalline ferroelectric ceramics based on orientation distribution functions. European Journal of Mechanics, A/Solids, 2020, 82, 103982.	3.7	7
18	On Microstructure Evolution in Fiber-Reinforced Elastomers and Implications for Their Mechanical Response and Stability. Journal of Engineering Materials and Technology, Transactions of the ASME, 2011, 133, .	1.4	6

#	Article	IF	Citations
19	Bounding the plastic strength of polycrystalline voided solids by linear-comparison homogenization techniques. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150380.	2.1	6
20	An evaluation of a class of phenomenological theories of ferroelectricity in polycrystalline ceramics. Journal of Engineering Mathematics, 2018, 113, 13-22.	1.2	6
21	Modeling microstructural effects in dilatational plasticity of polycrystalline materials. Procedia IUTAM, 2012, 3, 314-330.	1.2	5
22	Model reduction by mean-field homogenization in viscoelastic composites. I. Primal theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200407.	2.1	5
23	Influence of second-phase inclusions on the electro-deformation of ferroelectric ceramics. International Journal of Solids and Structures, 2016, 80, 381-392.	2.7	4
24	Space-charge polarization by confined ion migration in microstructured solid dielectrics. Journal of the Mechanics and Physics of Solids, 2019, 123, 172-189.	4.8	3
25	Model reduction by mean-field homogenization in viscoelastic composites. II. Application to rigidly reinforced solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200408.	2.1	3
26	Attainability of the Hashinâ€“Shtrikman bounds for two-phase well-ordered composites with a nonlinear phase. Comptes Rendus - Mecanique, 2013, 341, 766-769.	2.1	2
27	Bounds on the hydrostatic plastic strength of voided polycrystals and implications for linear-comparison homogenization techniques. Comptes Rendus - Mecanique, 2014, 342, 25-31.	2.1	2
28	A generalized-secant homogenization scheme for viscoplastic polycrystalline solids under imposed deformations. Comptes Rendus - Mecanique, 2015, 343, 179-186.	2.1	2
29	Nonlinear ionic transport through microstructured solid electrolytes: homogenization estimates. Modelling and Simulation in Materials Science and Engineering, 2016, 24, 075008.	2.0	2
30	Multiphase Conductors Realizing Aleksandrov's Mean. SIAM Journal on Applied Mathematics, 2016, 76, 1792-1798.	1.8	2
31	Model reduction by mean-field homogenization in viscoelastic composites. III. Dual theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200869.	2.1	2
32	Exact results for weakly nonlinear composites and implications for homogenization methods. Comptes Rendus - Mecanique, 2020, 348, 893-909.	0.7	1
33	Explicit estimates versus numerical bounds for the electrical conductivity of dispersions with dissimilar particle shape and distribution. Journal of Engineering Mathematics, 2020, 123, 165-171.	1.2	0
34	A class of coherent potentials for two-phase creeping solids. Acta Mechanica, 2021, 232, 4081.	2.1	0