Marcos Latorre

List of Publications by Year
in descending order

43 papers	1,004 citations	361296 20 h-index	477173 29 g-index
45 all docs	45 docs citations	45 times ranked	457 citing authors

#	Article	IF	Citations
1	What-You-Prescribe-Is-What-You-Get orthotropic hyperelasticity. Computational Mechanics, 2014, 53, 1279-1298.	2.2	66
2	WYPIWYG hyperelasticity for isotropic, compressible materials. Computational Mechanics, 2017, 59, 73-92.	2.2	54
3	Anisotropic finite strain viscoelasticity based on the Sidoroff multiplicative decomposition and logarithmic strains. Computational Mechanics, 2015, 56, 503-531.	2.2	51
4	Extension of the Sussmanâ€“Bathe spline-based hyperelastic model to incompressible transversely isotropic materials. Computers and Structures, 2013, 122, 13-26.	2.4	50
5	Fully anisotropic finite strain viscoelasticity based on a reverse multiplicative decomposition and logarithmic strains. Computers and Structures, 2016, 163, 56-70.	2.4	42
6	Modeling mechano-driven and immuno-mediated aortic maladaptation in hypertension. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1497-1511.	1.4	42
7	On the interpretation of the logarithmic strain tensor in an arbitrary system of representation. International Journal of Solids and Structures, 2014, 51, 1507-1515.	1.3	40
8	Stress and strain mapping tensors and general work-conjugacy in large strain continuum mechanics. Applied Mathematical Modelling, 2016, 40, 3938-3950.	2.2	37
9	Understanding the need of the compression branch to characterize hyperelastic materials. International Journal of Non-Linear Mechanics, 2017, 89, 14-24.	1.4	37
10	A mechanobiologically equilibrated constrained mixture model for growth and remodeling of soft tissues. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 2048-2071.	0.9	33
11	The relevance of transverse deformation effects in modeling soft biological tissues. International Journal of Solids and Structures, 2016, 99, 57-70.	1.3	31
12	On the tension-compression switch of the Gasserâ€“Ogdenâ€“Holzapfel model: Analysis and a new pre-integrated proposal. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 57, 175-189.	1.5	29
13	Determination of the WYPiWYG strain energy density of skin through finite element analysis of the experiments on circular specimens. Finite Elements in Analysis and Design, 2017, 134, 1-15.	1.7	27
14	Mechanobiological stability of biological soft tissues. Journal of the Mechanics and Physics of Solids, 2019, 125, 298-325.	2.3	27
15	Critical roles of time-scales in soft tissue growth and remodeling. APL Bioengineering, 2018, 2, 026108.	3.3	26
16	From Transcript to Tissue: Multiscale Modeling from Cell Signaling to Matrix Remodeling. Annals of Biomedical Engineering, 2021, 49, 1701-1715.	1.3	26
17	Computational anisotropic hardening multiplicative elastoplasticity based on the corrector elastic logarithmic strain rate. Computer Methods in Applied Mechanics and Engineering, 2017, 320, 82-121.	3.4	25
18	A continuum model for tension-compression asymmetry in skeletal muscle. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 455-460.	1.5	25

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19	Computational modeling predicts immuno-mechanical mechanisms of maladaptive aortic remodeling in hypertension. International Journal of Engineering Science, 2019, 141, 35-46.	2.7	24
20	Excessive adventitial stress drives inflammation-mediated fibrosis in hypertensive aortic remodelling in mice. Journal of the Royal Society Interface, 2021, 18, 20210336.	1.5	24
21	Mechanics-driven mechanobiological mechanisms of arterial tortuosity. Science Advances, 2020, 6, .	4.7	24
22	Material-symmetries congruency in transversely isotropic andÂorthotropic hyperelastic materials. European Journal of Mechanics, A/Solids, 2015, 53, 99-106.	2.1	22
23	Experimental data reduction for hyperelasticity. Computers and Structures, 2020, 232, 105919.	2.4	22
24	Paradoxical aortic stiffening and subsequent cardiac dysfunction in Hutchinsonâ€"Gilford progeria syndrome. Journal of the Royal Society Interface, 2020, 17, 20200066.	1.5	21
25	Biomechanical consequences of compromised elastic fiber integrity and matrix cross-linking on abdominal aortic aneurysmal enlargement. Acta Biomaterialia, 2021, 134, 422-434.	4.1	21
26	Numerical knockoutsâ€"In silico assessment of factors predisposing to thoracic aortic aneurysms. PLoS Computational Biology, 2020, 16, e1008273.	1.5	19
27	WYPiWYG hyperelasticity without inversion formula: Application to passive ventricular myocardium. Computers and Structures, 2017, 185, 47-58.	2.4	18
28	Capturing anisotropic constitutive models with WYPiWYG hyperelasticity; and on consistency with the infinitesimal theory at all deformation levels. International Journal of Non-Linear Mechanics, 2017, 96, 75-92.	1.4	18
29	Fast, rate-independent, finite element implementation of a 3D constrained mixture model of soft tissue growth and remodeling. Computer Methods in Applied Mechanics and Engineering, 2020, 368, 113156.	3.4	17
30	A new class of plastic flow evolution equations for anisotropic multiplicative elastoplasticity based on the notion of a corrector elastic strain rate. Applied Mathematical Modelling, 2018, 55, 716-740.	2.2	16
31	Determination and Finite Element Validation of the WYPIWYG Strain Energy of Superficial Fascia from Experimental Data. Annals of Biomedical Engineering, 2017, 45, 799-810.	1.3	15
32	Bi-modulus materials consistent with a stored energy function: Theory and numerical implementation. Computers and Structures, 2020, 229, 106176.	2.4	15
33	Strain-Level Dependent Nonequilibrium Anisotropic Viscoelasticity: Application to the Abdominal Muscle. Journal of Biomechanical Engineering, 2017, 139, .	0.6	10
34	Vascular adaptation in the presence of external support - A modeling study. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103943.	1.5	10
35	A continuum and computational framework for viscoelastodynamics: I. Finite deformation linear models. Computer Methods in Applied Mechanics and Engineering, 2021, 385, 114059.	3.4	9
36	Complementary roles of mechanotransduction and inflammation in vascular homeostasis. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2021, 477, 20200622.	1.0	8

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37	Modeling biological growth and remodeling: Contrasting methods, contrasting needs. Current Opinion in Biomedical Engineering, 2020, 15, 26-31.	1.8	6
38	Response to Fialaâ€™s comments on â€œOn the interpretation of the logarithmic strain tensor in an arbitrary system of representationâ€• International Journal of Solids and Structures, 2015, 56-57, 292.	1.3	5
39	In vivo development of tissue engineered vascular grafts: a fluid-solid-growth model. Biomechanics and Modeling in Mechanobiology, 2022, 21, 827-848.	1.4	5
40	Sheet metal forming analysis using a large strain anisotropic multiplicative plasticity formulation, based on elastic correctors, which preserves the structure of the infinitesimal theory. Finite Elements in Analysis and Design, 2019, 164, 1-17.	1.7	4
41	P.58 Genetic Background Dictates Aortic Fibrosis in Hypertensive Mice. Artery Research, 2020, 26, S81-S82.	0.3	1
42	Biomechanics and Mechanobiology of Extracellular Matrix Remodeling. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2020, , 1-20.	0.7	0
43	Advances in WYPIWYG constitutive modelling of soft materials. , 2016, , 414-418.		0