Marcos Latorre

List of Publications by Year
in descending order

43 papers	1,004 citations	361045 20 h-index	476904 29 g-index
45 all docs	45 docs citations	45 times ranked	457 citing authors

#	Article	IF	Citations
1	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
2	From Transcript to Tissue: Multiscale Modeling from Cell Signaling to Matrix Remodeling. Annals of Biomedical Engineering, 2021, 49, 1701-1715.	1.3	26
3	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
4	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
5	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
6	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
7	Experimental data reduction for hyperelasticity. Computers and Structures, 2020, 232, 105919.	2.4	22
8	Biomechanics and Mechanobiology of Extracellular Matrix Remodeling. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2020, , 1-20.	0.7	0
9	Bi-modulus materials consistent with a stored energy function: Theory and numerical implementation. Computers and Structures, 2020, 229, 106176.	2.4	15
10	Modeling biological growth and remodeling: Contrasting methods, contrasting needs. Current Opinion in Biomedical Engineering, 2020, 15, 26-31.	1.8	6
11	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
12	Paradoxical aortic stiffening and subsequent cardiac dysfunction in Hutchinsonâ€"Gilford progeria syndrome. Journal of the Royal Society Interface, 2020, 17, 20200066.	1.5	21
13	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
14	Mechanics-driven mechanobiological mechanisms of arterial tortuosity. Science Advances, 2020, 6, .	4.7	24
15	Numerical knockoutsâ€"In silico assessment of factors predisposing to thoracic aortic aneurysms. PLoS Computational Biology, 2020, 16, e1008273.	1.5	19
16	P.58 Genetic Background Dictates Aortic Fibrosis in Hypertensive Mice. Artery Research, 2020, 26, S81-S82.	0.3	1
17	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
18	Computational modeling predicts immuno-mechanical mechanisms of maladaptive aortic remodeling in hypertension. International Journal of Engineering Science, 2019, 141, 35-46.	2.7	24

#	Article	IF	Citations
19	Mechanobiological stability of biological soft tissues. Journal of the Mechanics and Physics of Solids, 2019, 125, 298-325.	2.3	27
20	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
21	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
22	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
23	Critical roles of time-scales in soft tissue growth and remodeling. APL Bioengineering, 2018, 2, 026108.	3.3	26
24	Modeling mechano-driven and immuno-mediated aortic maladaptation in hypertension. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1497-1511.	1.4	42
25	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
26	WYPiWYG hyperelasticity without inversion formula: Application to passive ventricular myocardium. Computers and Structures, 2017, 185, 47-58.	2.4	18
27	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
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	Strain-Level Dependent Nonequilibrium Anisotropic Viscoelasticity: Application to the Abdominal Muscle. Journal of Biomechanical Engineering, 2017, 139, .	0.6	10
30	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
31	WYPIWYG hyperelasticity for isotropic, compressible materials. Computational Mechanics, 2017, 59, 73-92.	2.2	54
32	Understanding the need of the compression branch to characterize hyperelastic materials. International Journal of Non-Linear Mechanics, 2017, 89, 14-24.	1.4	37
33	The relevance of transverse deformation effects in modeling soft biological tissues. International Journal of Solids and Structures, 2016, 99, 57-70.	1.3	31
34	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
35	Fully anisotropic finite strain viscoelasticity based on a reverse multiplicative decomposition and logarithmic strains. Computers and Structures, 2016, 163, 56-70.	2.4	42
36	Stress and strain mapping tensors and general work-conjugacy in large strain continuum mechanics. Applied Mathematical Modelling, 2016, 40, 3938-3950.	2.2	37

#	Article	IF	Citations
37	Advances in WYPIWYG constitutive modelling of soft materials. , 2016, , 414-418.		0
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	Material-symmetries congruency in transversely isotropic andÂorthotropic hyperelastic materials. European Journal of Mechanics, A/Solids, 2015, 53, 99-106.	2.1	22
40	Anisotropic finite strain viscoelasticity based on the Sidoroff multiplicative decomposition and logarithmic strains. Computational Mechanics, 2015, 56, 503-531.	2.2	51
41	What-You-Prescribe-Is-What-You-Get orthotropic hyperelasticity. Computational Mechanics, 2014, 53, 1279-1298.	2.2	66
42	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
43	Extension of the Sussmanâ€“Bathe spline-based hyperelastic model to incompressible transversely isotropic materials. Computers and Structures, 2013, 122, 13-26.	2.4	50