Michele Marino

List of Publications by Year
in descending order

55	730	471371	580701
papers	citations	17 h-index	25 g-index

57	57	57	545
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A unified multiscale mechanical model for soft collagenous tissues with regular fiber arrangement. Journal of Biomechanics, 2010, 43, 355-363.	0.9	93
2	Stress and strain localization in stretched collagenous tissues via a multiscale modelling approach. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 11-30.	0.9	36
3	Computational homogenization of polycrystalline materials with the Virtual Element Method. Computer Methods in Applied Mechanics and Engineering, 2019, 355, 349-372.	3.4	35
4	An insight on multiscale tendon modeling in muscleâ€“tendon integrated behavior. Biomechanics and Modeling in Mechanobiology, 2012, 11, 505-517.	1.4	33
5	Finite strain response of crimped fibers under uniaxial traction: An analytical approach applied to collagen. Journal of the Mechanics and Physics of Solids, 2017, 98, 429-453.	2.3	33
6	Model-data-driven constitutive responses: Application to a multiscale computational framework. International Journal of Engineering Science, 2021, 167, 103522.	2.7	32
7	Local approximate Gaussian process regression for data-driven constitutive models: development and comparison with neural networks. Computer Methods in Applied Mechanics and Engineering, 2022, 388, 114217.	3.4	32
8	A FSI computational framework for vascular physiopathology: A novel flow-tissue multiscale strategy. Medical Engineering and Physics, 2017, 47, 25-37.	0.8	30
9	Age-Dependent Arterial Mechanics via a Multiscale Elastic Approach. International Journal for Computational Methods in Engineering Science and Mechanics, 2013, 14, 141-151.	1.4	28
10	Influence of inter-molecular interactions on the elasto-damage mechanics of collagen fibrils: A bottom-up approach towards macroscopic tissue modeling. Journal of the Mechanics and Physics of Solids, 2014, 73, 38-54.	2.3	26
11	Sensitivity analysis for the mechanics of tendons and ligaments: Investigation on the effects of collagen structural properties via a multiscale modeling approach. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3209.	1.0	24
12	A Numerical Failure Analysis of Multi-bolted Joints in FRP Laminates Based on Basalt Fibers. Procedia Engineering, 2015, 109, 492-506.	1.2	23
13	Molecular and intermolecular effects in collagen fibril mechanics: a multiscale analytical model compared with atomistic and experimental studies. Biomechanics and Modeling in Mechanobiology, 2016, 15, 133-154.	1.4	23
14	A chemo-mechano-biological formulation for the effects of biochemical alterations on arterial mechanics: the role of molecular transport and multiscale tissue remodelling. Journal of the Royal Society Interface, 2017, 14, 20170615.	1.5	23
15	Molecular-level collagen damage explains softening and failure of arterial tissues: A quantitative interpretation of CHP data with a novel elasto-damage model. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 97, 254-271.	1.5	21
16	Chemo-mechanical modelling of swelling and crosslinking reaction kinetics in alginate hydrogels: A novel theory and its numerical implementation. Journal of the Mechanics and Physics of Solids, 2021, 153, 104476.	2.3	21
17	Experimental characterization and computational modeling of hydrogel cross-linking for bioprinting applications. International Journal of Artificial Organs, 2019, 42, 548-557.	0.7	20
18	An integrated computational approach for aortic mechanics including geometric, histological and chemico-physical data. Journal of Biomechanics, 2016, 49, 2331-2340.	0.9	18

#	Article	IF	Citations
19	Direct and inverse identification of constitutive parameters from the structure of soft tissues. Part 1: micro- and nanostructure of collagen fibers. Biomechanics and Modeling in Mechanobiology, 2018, 17, 1011-1036.	1.4	17
20	A novel stress-induced anisotropic growth model driven by nutrient diffusion: Theory, FEM implementation and applications in bio-mechanical problems. Journal of the Mechanics and Physics of Solids, 2020, 144, 104097.	2.3	16
21	Multiscale Elastic Models of Collagen Bio-structures: From Cross-Linked Molecules to Soft Tissues. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2013, , 73-102.	0.7	14
22	Multiscale modeling of a free-radical emulsion polymerization process: Numerical approximation by the Finite Element Method. Computers and Chemical Engineering, 2020, 140, 106974.	2.0	12
23	Computational model of damage-induced growth in soft biological tissues considering the mechanobiology of healing. Biomechanics and Modeling in Mechanobiology, 2021, 20, 1297-1315.	1.4	12
24	Microâ€“macro constitutive modeling and finite element analytical-based formulations for fibrous materials: A multiscale structural approach for crimped fibers. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 938-969.	3.4	11
25	Electro-magneto-mechanically response of polycrystalline materials: Computational homogenization via the Virtual Element Method. Computer Methods in Applied Mechanics and Engineering, 2021, 380, 113775.	3.4	11
26	Computational modeling of soft tissues and ligaments. , 2014, , 141-172.		9
27	Direct and inverse identification of constitutive parameters from the structure of soft tissues. Part 2:Âdispersed arrangement of collagen fibers. Biomechanics and Modeling in Mechanobiology, 2019, 18, 897-920.	1.4	9
28	Equivalent Stiffness and Compliance of Curvilinear Elastic Fibers. Lecture Notes in Applied and Computational Mechanics, 2012, , 309-332.	2.0	8
29	Constitutive Modeling of Soft Tissues. , 2019, , 81-110.		7
30	Biomechanical Effects of a Cross Connector in Sacral Fractures â€“ A Finite Element Analysis. Frontiers in Bioengineering and Biotechnology, 2021, 9, 669321.	2.0	7
31	Mixed variational formulations for structural topology optimization based on the phase-field approach. Structural and Multidisciplinary Optimization, 2021, 64, 2627-2652.	1.7	7
32	PI/PID controller stabilizing sets of uncertain nonlinear systems: an efficient surrogate model-based approach. Nonlinear Dynamics, 2021, 105, 277-299.	2.7	6
33	Nearly-constrained transversely isotropic linear elasticity: energetically consistent anisotropic deformation modes for mixed finite element formulations. International Journal of Solids and Structures, 2020, 202, 166-183.	1.3	5
34	An operative algebraic formulation for the unilaterally-constrained mechanical problem of smart tensegrities. International Journal of Solids and Structures, 2014, 51, 3333-3349.	1.3	4
35	Convex analysis and ideal tensegrities. Comptes Rendus - Mecanique, 2011, 339, 683-691.	2.1	3
36	Multiscale hierarchical mechanics in soft tissues. Proceedings in Applied Mathematics and Mechanics, 2015, 15, 35-38.	0.2	3

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37	Coupling Microscale Transport and Tissue Mechanics: Modeling Strategies for Arterial Multiphysics. , 2017, , 77-112.		3
38	Mechano-chemo-biological Computational Models for Arteries in Health, Disease and Healing: From Tissue Remodelling to Drug-eluting Devices. Current Pharmaceutical Design, 2021, 27, 1904-1917.	0.9	3
39	Numerical modeling of failure modes in bolted composite laminates. AIP Conference Proceedings, 2015, , .	0.3	2
40	An ideal model for stress-induced martensitic transformations in shape-memory alloys. Frattura Ed Integrita Strutturale, 2014, 8, 96-110.	0.5	1
41	A finite-element approach for the analysis of pin-bearing failure of composite laminates. Frattura Ed Integrita Strutturale, 2014, 8, 241-250.	0.5	1
42	Computational modeling of hydrogel crossâ€linking based on reactionâ€diffusion theory. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900406.	0.2	1
43	A Computational Model for Biological Tissues Considering the Influence of Injury on Growth and Remodelling. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900259.	0.2	1
44	Computational multiscale modelling of soft tissues mechanics: Application to tendons and ligaments. , 2021, , 121-153.		1
45	Equilibrium and stability of tensegrity structures: A convex analysis approach. Discrete and Continuous Dynamical Systems - Series S, 2013, 6, 461-478.	0.6	1
46	Enabling Technologies for Obtaining Desired Stiffness Gradients in GelMA Hydrogels Constructs. Macromolecular Chemistry and Physics, 0, , 2100326.	1.1	1
47	Models and simulations as enabling technologies for bioprinting process design. , 2022, , 137-206.		1
48	Integrated mechanical models for collagenous biostructures at different length scales. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1018-1022.	0.4	0
49	Computational multiscale methods for tissue biomechanics. International Journal for Computational Methods in Engineering Science and Mechanics, 2016, 17, 135-136.	1.4	0
50	Cardiovascular biomechanics in health and disease. Journal of Biomechanics, 2016, 49, 2319-2320.	0.9	0
51	Collisions in shape memory alloys. GAMM Mitteilungen, 2018, 40, 157-183.	2.7	0
52	The Virtual Element Method for the numerical homogenization of electroâ€mechanical responses. Proceedings in Applied Mathematics and Mechanics, 2021, 20, .	0.2	0
53	Editorial: Special Issue of the Italian Chapter of the European Society of Biomechanics dedicated to â€œBiomechanics for in silico clinical trialsâ€• Medical Engineering and Physics, 2021, 89, 12-13.	0.8	0
54	Shape Memory Alloys and Collisions. Springer Series in Solid and Structural Mechanics, 2017, , 225-255.	0.2	0

#	Article	IF	Citations
55	Computational Mechanics in Science and Engineering â€“ Quo Vadis. Rad Hrvatske Akademije Znanosti I Umjetnosti TehniÄke Znanosti, 2018, 536, 1-32.	0.0	0