Arturo N Natali

List of Publications by Year
in descending order

88	2,345	186265	233421
papers	citations	28 h-index	45 g-index

88	88	88	2085
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical analysis of tooth mobility: formulation of a non-linear constitutive law for the periodontal ligament. Dental Materials, 2004, 20, 623-629.	3.5	149
2	Infrapatellar fat pad features in osteoarthritis: a histopathological and molecular study. Rheumatology, 2017, 56, 1784-1793.	1.9	114
3	Viscoelastic Response of the Periodontal Ligament: An Experimentalâ€“Numerical Analysis. Connective Tissue Research, 2004, 45, 222-230.	2.3	111
4	Anisotropic elasto-damage constitutive model for the biomechanical analysis of tendons. Medical Engineering and Physics, 2005, 27, 209-214.	1.7	99
5	Biomechanical behaviour of oesophageal tissues: Material and structural configuration, experimental data and constitutive analysis. Medical Engineering and Physics, 2009, 31, 1056-1062.	1.7	94
6	Decellularized Human Skeletal Muscle as Biologic Scaffold for Reconstructive Surgery. International Journal of Molecular Sciences, 2015, 16, 14808-14831.	4.1	92
7	Analysis of bone-implant interaction phenomena by using a numerical approach. Clinical Oral Implants Research, 2006, 17, 67-74.	4.5	85
8	A Visco-Hyperelastic-Damage Constitutive Model for the Analysis of the Biomechanical Response of the Periodontal Ligament. Journal of Biomechanical Engineering, 2008, 130, 031004.	1.3	66
9	Evaluation of stress induced in peri-implant bone tissue by misfit in multi-implant prosthesis. Dental Materials, 2006, 22, 388-395.	3.5	64
10	A Transversally Isotropic Elasto-damage Constitutive Model for the Periodontal Ligament. Computer Methods in Biomechanics and Biomedical Engineering, 2003, 6, 329-336.	1.6	62
11	Mechanics of crural fascia: from anatomy to constitutive modelling. Surgical and Radiologic Anatomy, 2009, 31, 523-529.	1.2	61
12	Investigation of the mechanical properties of the human crural fascia and their possible clinical implications. Surgical and Radiologic Anatomy, 2014, 36, 25-32.	1.2	58
13	Constitutive formulation and analysis of heel pad tissues mechanics. Medical Engineering and Physics, 2010, 32, 516-522.	1.7	56
14	Constitutive modelling of inelastic behaviour of cortical bone. Medical Engineering and Physics, 2008, 30, 905-912.	1.7	55
15	Investigation on the load-displacement curves of a human healthy heel pad: In vivo compression data compared to numerical results. Medical Engineering and Physics, 2012, 34, 1253-1259.	1.7	49
16	Experimentalâ€“numerical analysis of minipig's multi-rooted teeth. Journal of Biomechanics, 2007, 40, 1701-1708.	2.1	47
17	A numerical model for investigating the mechanics of calcaneal fat pad region. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 5, 216-223.	3.1	46
18	Bladder tissue biomechanical behavior: Experimental tests and constitutive formulation. Journal of Biomechanics, 2015, 48, 3088-3096.	2.1	41

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19	The Infrapatellar Adipose Body: A Histotopographic Study. Cells Tissues Organs, 2016, 201, 220-231.	2.3	41
20	Characterization of the anisotropic mechanical behaviour of colonic tissues: experimental activity and constitutive formulation. Experimental Physiology, 2014, 99, 759-771.	2.0	40
21	Constitutive formulations for the mechanical investigation of colonic tissues. Journal of Biomedical Materials Research - Part A, 2014, 102, 1243-1254.	4.0	39
22	Experimental investigation of the biomechanics of urethral tissues and structures. Experimental Physiology, 2016, 101, 641-656.	2.0	39
23	Modelling of mandible bone properties in the numerical analysis of oral implant biomechanics. Computer Methods and Programs in Biomedicine, 2010, 100, 158-165.	4.7	37
24	Analysis of heel pad tissues mechanics at the heel strike in bare and shod conditions. Medical Engineering and Physics, 2013, 35, 441-447.	1.7	37
25	Investigation of bone inelastic response in interaction phenomena with dental implants. Dental Materials, 2008, 24, 561-569.	3.5	32
26	Investigation of biomechanical response of Hoffa's fat pad and comparative characterization. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 67, 1-9.	3.1	32
27	Quantitative MRI analysis of infrapatellar and suprapatellar fat pads in normal controls, moderate and end-stage osteoarthritis. Annals of Anatomy, 2019, 221, 108-114.	1.9	31
28	A constitutive model for the mechanical characterization of the plantar fascia. Connective Tissue Research, 2010, 51, 337-346.	2.3	30
29	Biomechanical behavior of plantar fat pad in healthy and degenerative foot conditions. Medical and Biological Engineering and Computing, 2016, 54, 653-661.	2.8	29
30	Fibre and extracellular matrix contributions to passive forces in human skeletal muscles: An experimental based constitutive law for numerical modelling of the passive element in the classical Hill-type three element model. PLoS ONE, 2019, 14, e0224232.	2.5	29
31	Investigation of viscoelastoplastic response of bone tissue in oral implants press fit process. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 91B, 868-875.	3.4	28
32	Dental implants press fit phenomena: Biomechanical analysis considering bone inelastic response. Dental Materials, 2009, 25, 573-581.	3.5	26
33	Constitutive modeling of the non-linear visco-elasticity of the periodontal ligament. Computer Methods and Programs in Biomedicine, 2011, 104, 193-198.	4.7	26
34	Investigation of foot plantar pressure: experimental and numerical analysis. Medical and Biological Engineering and Computing, 2010, 48, 1167-1174.	2.8	25
35	From single muscle fiber to whole muscle mechanics: a finite element model of a muscle bundle with fast and slow fibers. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1833-1843.	2.8	24
36	Mechanics of the urethral duct: tissue constitutive formulation and structural modeling for the investigation of lumen occlusion. Biomechanics and Modeling in Mechanobiology, 2017, 16, 439-447.	2.8	23

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37	Biomechanical behavior of Hoffaâ€™s fat pad in healthy and osteoarthritic conditions: histological and mechanical investigations. Australasian Physical and Engineering Sciences in Medicine, 2018, 41, 657-667.	1.3	23
38	Interplay between chemical structure and ageing on mechanical and electric relaxations in poly(ether-block-amide)s. Polymer Degradation and Stability, 2013, 98, 1126-1137.	5.8	20
39	Computational tools for the analysis of mechanical functionality of gastrointestinal structures. Technology and Health Care, 2013, 21, 271-283.	1.2	20
40	Correlation Between Chemical and Mechanical Properties in Renewable Poly(etherâ€blockâ€amide)s for Biomedical Applications. Macromolecular Chemistry and Physics, 2013, 214, 2061-2072.	2.2	19
41	Flow and Volume Dependence of Rat Airway Resistance During Constant Flow Inflation and Deflation. Lung, 2011, 189, 511-518.	3.3	18
42	Computational modeling of abdominal hernia laparoscopic repair with a surgical mesh. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 73-81.	2.8	18
43	Effect of steam on structure and mechanical properties of biomedical block copolymers. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1337-1346.	2.1	17
44	Experimental investigation of the structural behavior of equine urethra. Computer Methods and Programs in Biomedicine, 2017, 141, 35-41.	4.7	17
45	Numerical modelling of abdominal wall mechanics: The role of muscular contraction and intra-abdominal pressure. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103578.	3.1	17
46	Biomechanical behavior of human crural fascia in anterior and posterior regions of the lower limb. Medical and Biological Engineering and Computing, 2015, 53, 951-959.	2.8	16
47	Characterization of soft tissue mechanics with aging. IEEE Engineering in Medicine and Biology Magazine, 2008, 27, 15-22.	0.8	15
48	Analysis of the structural behaviour of colonic segments by inflation tests: Experimental activity and physio-mechanical model. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 794-803.	1.8	15
49	Urethral lumen occlusion by artificial sphincteric devices: a computational biomechanics approach. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1439-1446.	2.8	12
50	Biomechanical analysis of the interaction phenomena between artificial urinary sphincter and urethral duct. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3308.	2.1	12
51	Interaction phenomena between a cuff of an artificial urinary sphincter and a urethral phantom. Artificial Organs, 2019, 43, 888-896.	1.9	11
52	Investigation of the mechanical behaviour of the plantar soft tissue during gait cycle: Experimental and numerical activities. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 713-720.	1.8	10
53	The effects of the muscular contraction on the abdominal biomechanics: a numerical investigation. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 139-148.	1.6	10
54	The effect of body warming on respiratory system stress recovery in the rat. Acta of Bioengineering and Biomechanics, 2012, 14, 59-66.	0.4	10

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55	Constitutive formulation and numerical analysis of the biomechanical behaviour of forefoot plantar soft tissue. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 942-951.	1.8	9
56	MECHANICAL CHARACTERIZATION OF ANIMAL DERIVED GRAFTS FOR SURGICAL IMPLANTATION. Journal of Mechanics in Medicine and Biology, 2016, 16, 1650023.	0.7	9
57	3D surface imaging of abdominal wall muscular contraction. Computer Methods and Programs in Biomedicine, 2019, 175, 103-109.	4.7	9
58	Investigations on the viscoelastic behaviour of a human healthy heel pad: In vivo compression tests and numerical analysis. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 334-342.	1.8	8
59	Effect of steam on the structural and morphological stability of renewable poly(etherâ€blockâ€amide)s. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 409-418.	2.1	8
60	Marker Tracking for Local Strain Measurement in Mechanical Testing of Biomedical Materials. Journal of Medical and Biological Engineering, 2019, 39, 764-772.	1.8	8
61	Investigation of the biomechanical behaviour of hindfoot ligaments. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 683-692.	1.8	7
62	A physiological model for the investigation of esophageal motility in healthy and pathologic conditions. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 892-899.	1.8	7
63	Numerical model for healthy and injured ankle ligaments. Australasian Physical and Engineering Sciences in Medicine, 2017, 40, 289-295.	1.3	7
64	Urethral lumen occlusion by artificial sphincteric device: Evaluation of degraded tissues effects. Journal of Biomechanics, 2017, 65, 75-81.	2.1	7
65	The characteristics of the lobular arrangement indicate the dynamic role played by the infrapatellar fat pad in knee kinematics. Journal of Anatomy, 2019, 235, 80-87.	1.5	7
66	Investigation of interaction phenomena between lower urinary tract and artificial urinary sphincter in consideration of urethral tissues degeneration. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2099-2109.	2.8	7
67	Investigation of the interaction phenomena between foot and insole by means of a numerical approach. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2015, 229, 3-9.	0.7	5
68	Investigation of interaction phenomena between crural fascia and muscles by using a three-dimensional numerical model. Medical and Biological Engineering and Computing, 2017, 55, 1683-1691.	2.8	5
69	Investigation of the Mechanical Behavior of Polyester Meshes for Abdominal Surgery: A Preliminary Study. Journal of Medical and Biological Engineering, 2018, 38, 654-665.	1.8	5
70	A numerical investigation of the infrapatellar fat pad. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2020, 234, 1113-1121.	1.8	5
71	Investigation of the biomechanical behaviour of articular cartilage in hindfoot joints. Acta of Bioengineering and Biomechanics, 2014, 16, 57-65.	0.4	5
72	Biomechanical behavior of pericardial human tissue: A constitutive formulation. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 926-934.	1.8	4

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73	NUMERICAL ANALYSIS OF THE FOOT IN HEALTHY AND DEGENERATIVE CONDITIONS. Journal of Mechanics in Medicine and Biology, 2017, 17, 1750095.	0.7	4
74	Numerical Analysis of Biomechanical Response of a Dental Prosthesis with Regard to Boneâ€“Implant Adhesion Phenomena. Journal of Adhesion Science and Technology, 2009, 23, 1187-1199.	2.6	3
75	Poster presentations. Surgical and Radiologic Anatomy, 2009, 31, 95-229.	1.2	3
76	Interplay between physicochemical and mechanical properties of poly(ethylene terephthalate) meshes for hernia repair. Journal of Applied Polymer Science, 2018, 135, 46014.	2.6	3
77	Biomechanical response of the plantar tissues of the foot in healthy and degenerative conditions. Muscles, Ligaments and Tendons Journal, 2017, 7, 503.	0.3	3
78	ANALYSIS OF THE PASSIVE MECHANICAL BEHAVIOR OF TAENIAE COLI: EXPERIMENTAL AND NUMERICAL APPROACH. Journal of Mechanics in Medicine and Biology, 2014, 14, 1450012.	0.7	2
79	Evaluation of the mechanical behaviour of Telemark ski boots: Part II â€“ structural analysis. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2014, 228, 204-212.	0.7	2
80	Numerical modelling of crural fascia mechanical interaction with muscular compartments. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 395-402.	1.8	2
81	Conformation and mechanics of the polymeric cuff of artificial urinary sphincter. Mathematical Biosciences and Engineering, 2020, 17, 3894-3908.	1.9	2
82	Constitutive Formulation for Numerical Analysis of Visco-Hyperelastic Damage Phenomena in Soft Biological Tissues. , 2006, , 467.		1
83	Evaluation of the mechanical behaviour of Telemark ski boots: Part I â€“ materials characterization in use conditions. Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology, 2014, 228, 195-203.	0.7	1
84	Numerical Analysis of Titanium Cast Devices for Dental Implantology. Computer Methods in Biomechanics and Biomedical Engineering, 2002, 5, 301-308.	1.6	0
85	Title is missing!. , 2019, 14, e0224232.		0
86	Title is missing!. , 2019, 14, e0224232.		0
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