Arturo N Natali

List of Publications by Year
in descending order

88 papers	2,345 citations	212478 28 h-index	263392 45 g-index
88 all docs	88 docs citations	88 times ranked	2260 citing authors

#	Article	IF	Citations
1	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.	1.5	17
2	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.	1.0	5
3	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.	1.4	7
4	Biomechanical analysis of the interaction phenomena between artificial urinary sphincter and urethral duct. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3308.	1.0	12
5	Conformation and mechanics of the polymeric cuff of artificial urinary sphincter. Mathematical Biosciences and Engineering, 2020, 17, 3894-3908.	1.0	2
6	The effects of the muscular contraction on the abdominal biomechanics: a numerical investigation. Computer Methods in Biomechanics and Biomedical Engineering, 2019, 22, 139-148.	0.9	10
7	Marker Tracking for Local Strain Measurement in Mechanical Testing of Biomedical Materials. Journal of Medical and Biological Engineering, 2019, 39, 764-772.	1.0	8
8	Interaction phenomena between a cuff of an artificial urinary sphincter and a urethral phantom. Artificial Organs, 2019, 43, 888-896.	1.0	11
9	3D surface imaging of abdominal wall muscular contraction. Computer Methods and Programs in Biomedicine, 2019, 175, 103-109.	2.6	9
10	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.	0.9	7
11	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.	1.1	29
12	Quantitative MRI analysis of infrapatellar and suprapatellar fat pads in normal controls, moderate and end-stage osteoarthritis. Annals of Anatomy, 2019, 221, 108-114.	1.0	31
13	Title is missing!. , 2019, 14, e0224232.		0
14	Title is missing!. , 2019, 14, e0224232.		0
15	Title is missing!. , 2019, 14, e0224232.		0
16	Title is missing!. , 2019, 14, e0224232.		0
17	Interplay between physicochemical and mechanical properties of poly(ethylene terephthalate) meshes for hernia repair. Journal of Applied Polymer Science, 2018, 135, 46014.	1.3	3
18	Investigation of the Mechanical Behavior of Polyester Meshes for Abdominal Surgery: A Preliminary Study. Journal of Medical and Biological Engineering, 2018, 38, 654-665.	1.0	5

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19	Computational modeling of abdominal hernia laparoscopic repair with a surgical mesh. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 73-81.	1.7	18
20	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.	1.4	23
21	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.	1.6	5
22	Experimental investigation of the structural behavior of equine urethra. Computer Methods and Programs in Biomedicine, 2017, 141, 35-41.	2.6	17
23	Numerical model for healthy and injured ankle ligaments. Australasian Physical and Engineering Sciences in Medicine, 2017, 40, 289-295.	1.4	7
24	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.	1.4	24
25	Urethral lumen occlusion by artificial sphincteric devices: a computational biomechanics approach. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1439-1446.	1.4	12
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.	1.5	32
27	Urethral lumen occlusion by artificial sphincteric device: Evaluation of degraded tissues effects. Journal of Biomechanics, 2017, 65, 75-81.	0.9	7
28	NUMERICAL ANALYSIS OF THE FOOT IN HEALTHY AND DEGENERATIVE CONDITIONS. Journal of Mechanics in Medicine and Biology, 2017, 17, 1750095.	0.3	4
29	Infrapatellar fat pad features in osteoarthritis: a histopathological and molecular study. Rheumatology, 2017, 56, 1784-1793.	0.9	114
30	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.	1.4	23
31	Biomechanical response of the plantar tissues of the foot in healthy and degenerative conditions. Muscles, Ligaments and Tendons Journal, 2017, 7, 503.	0.1	3
32	Experimental investigation of the biomechanics of urethral tissues and structures. Experimental Physiology, 2016, 101, 641-656.	0.9	39
33	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.	1.0	7
34	MECHANICAL CHARACTERIZATION OF ANIMAL DERIVED GRAFTS FOR SURGICAL IMPLANTATION. Journal of Mechanics in Medicine and Biology, 2016, 16, 1650023.	0.3	9
35	The Infrapatellar Adipose Body: A Histotopographic Study. Cells Tissues Organs, 2016, 201, 220-231.	1.3	41
36	Biomechanical behavior of plantar fat pad in healthy and degenerative foot conditions. Medical and Biological Engineering and Computing, 2016, 54, 653-661.	1.6	29

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37	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.	1.0	15
38	Decellularized Human Skeletal Muscle as Biologic Scaffold for Reconstructive Surgery. International Journal of Molecular Sciences, 2015, 16, 14808-14831.	1.8	92
39	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.	1.6	16
40	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.	1.0	2
41	Bladder tissue biomechanical behavior: Experimental tests and constitutive formulation. Journal of Biomechanics, 2015, 48, 3088-3096.	0.9	41
42	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.	1.0	10
43	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.	0.4	5
44	ANALYSIS OF THE PASSIVE MECHANICAL BEHAVIOR OF TAENIAE COLI: EXPERIMENTAL AND NUMERICAL APPROACH. Journal of Mechanics in Medicine and Biology, 2014, 14, 1450012.	0.3	2
45	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.	0.4	1
46	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.	0.4	2
47	Effect of steam on structure and mechanical properties of biomedical block copolymers. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1337-1346.	2.4	17
48	Characterization of the anisotropic mechanical behaviour of colonic tissues: experimental activity and constitutive formulation. Experimental Physiology, 2014, 99, 759-771.	0.9	40
49	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.	1.0	9
50	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.	1.0	4
51	Investigation of the mechanical properties of the human crural fascia and their possible clinical implications. Surgical and Radiologic Anatomy, 2014, 36, 25-32.	0.6	58
52	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.	2.4	8
53	Constitutive formulations for the mechanical investigation of colonic tissues. Journal of Biomedical Materials Research - Part A, 2014, 102, 1243-1254.	2.1	39
54	Investigation of the biomechanical behaviour of articular cartilage in hindfoot joints. Acta of Bioengineering and Biomechanics, 2014, 16, 57-65.	0.2	5

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55	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.	2.7	20
56	Correlation Between Chemical and Mechanical Properties in Renewable Poly(etherâ€blockâ€amide)s for Biomedical Applications. Macromolecular Chemistry and Physics, 2013, 214, 2061-2072.	1.1	19
57	Analysis of heel pad tissues mechanics at the heel strike in bare and shod conditions. Medical Engineering and Physics, 2013, 35, 441-447.	0.8	37
58	Computational tools for the analysis of mechanical functionality of gastrointestinal structures. Technology and Health Care, 2013, 21, 271-283.	0.5	20
59	Investigations on the viscoelastic behaviour of a human healthy heel pad: <i>In vivo</i> compression tests and numerical analysis. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 334-342.	1.0	8
60	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.	1.0	7
61	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.	0.8	49
62	A numerical model for investigating the mechanics of calcaneal fat pad region. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 5, 216-223.	1.5	46
63	The effect of body warming on respiratory system stress recovery in the rat. Acta of Bioengineering and Biomechanics, 2012, 14, 59-66.	0.2	10
64	Constitutive modeling of the non-linear visco-elasticity of the periodontal ligament. Computer Methods and Programs in Biomedicine, 2011, 104, 193-198.	2.6	26
65	Flow and Volume Dependence of Rat Airway Resistance During Constant Flow Inflation and Deflation. Lung, 2011, 189, 511-518.	1.4	18
66	Investigation of foot plantar pressure: experimental and numerical analysis. Medical and Biological Engineering and Computing, 2010, 48, 1167-1174.	1.6	25
67	Modelling of mandible bone properties in the numerical analysis of oral implant biomechanics. Computer Methods and Programs in Biomedicine, 2010, 100, 158-165.	2.6	37
68	Constitutive formulation and analysis of heel pad tissues mechanics. Medical Engineering and Physics, 2010, 32, 516-522.	0.8	56
69	A constitutive model for the mechanical characterization of the plantar fascia. Connective Tissue Research, 2010, 51, 337-346.	1.1	30
70	Dental implants press fit phenomena: Biomechanical analysis considering bone inelastic response. Dental Materials, 2009, 25, 573-581.	1.6	26
71	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.	1.6	28
72	Mechanics of crural fascia: from anatomy to constitutive modelling. Surgical and Radiologic Anatomy, 2009, 31, 523-529.	0.6	61

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73	Biomechanical behaviour of oesophageal tissues: Material and structural configuration, experimental data and constitutive analysis. Medical Engineering and Physics, 2009, 31, 1056-1062.	0.8	94
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.	1.4	3
75	Poster presentations. Surgical and Radiologic Anatomy, 2009, 31, 95-229.	0.6	3
76	Constitutive modelling of inelastic behaviour of cortical bone. Medical Engineering and Physics, 2008, 30, 905-912.	0.8	55
77	Characterization of soft tissue mechanics with aging. IEEE Engineering in Medicine and Biology Magazine, 2008, 27, 15-22.	1.1	15
78	Investigation of bone inelastic response in interaction phenomena with dental implants. Dental Materials, 2008, 24, 561-569.	1.6	32
79	A Visco-Hyperelastic-Damage Constitutive Model for the Analysis of the Biomechanical Response of the Periodontal Ligament. Journal of Biomechanical Engineering, 2008, 130, 031004.	0.6	66
80	Experimentalâ€"numerical analysis of minipig's multi-rooted teeth. Journal of Biomechanics, 2007, 40, 1701-1708.	0.9	47
81	Constitutive Formulation for Numerical Analysis of Visco-Hyperelastic Damage Phenomena in Soft Biological Tissues. , 2006, , 467.		1
82	Analysis of bone-implant interaction phenomena by using a numerical approach. Clinical Oral Implants Research, 2006, 17, 67-74.	1.9	85
83	Evaluation of stress induced in peri-implant bone tissue by misfit in multi-implant prosthesis. Dental Materials, 2006, 22, 388-395.	1.6	64
84	Anisotropic elasto-damage constitutive model for the biomechanical analysis of tendons. Medical Engineering and Physics, 2005, 27, 209-214.	0.8	99
85	Numerical analysis of tooth mobility: formulation of a non-linear constitutive law for the periodontal ligament. Dental Materials, 2004, 20, 623-629.	1.6	149
86	Viscoelastic Response of the Periodontal Ligament: An Experimentalâ€"Numerical Analysis. Connective Tissue Research, 2004, 45, 222-230.	1.1	111
87	A Transversally Isotropic Elasto-damage Constitutive Model for the Periodontal Ligament. Computer Methods in Biomechanics and Biomedical Engineering, 2003, 6, 329-336.	0.9	62
88	Numerical Analysis of Titanium Cast Devices for Dental Implantology. Computer Methods in Biomechanics and Biomedical Engineering, 2002, 5, 301-308.	0.9	0