Emanuele Luigi Carniel

List of Publications by Year
in descending order

78	1,755	236612	301761
papers	citations	25 h-index	39 g-index

79	79	79	1372
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Viscoelastic Response of the Periodontal Ligament: An Experimentalâ€“Numerical Analysis. Connective Tissue Research, 2004, 45, 222-230.	1.1	111
2	Anisotropic elasto-damage constitutive model for the biomechanical analysis of tendons. Medical Engineering and Physics, 2005, 27, 209-214.	0.8	99
3	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
4	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
5	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
6	Infrapatellar Fat Pad Gene Expression and Protein Production in Patients with and without Osteoarthritis. International Journal of Molecular Sciences, 2020, 21, 6016.	1.8	62
7	Mechanics of crural fascia: from anatomy to constitutive modelling. Surgical and Radiologic Anatomy, 2009, 31, 523-529.	0.6	61
8	Constitutive formulation and analysis of heel pad tissues mechanics. Medical Engineering and Physics, 2010, 32, 516-522.	0.8	56
9	Constitutive modelling of inelastic behaviour of cortical bone. Medical Engineering and Physics, 2008, 30, 905-912.	0.8	55
10	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
11	Experimentalâ€“numerical analysis of minipig's multi-rooted teeth. Journal of Biomechanics, 2007, 40, 1701-1708.	0.9	47
12	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
13	Bladder tissue biomechanical behavior: Experimental tests and constitutive formulation. Journal of Biomechanics, 2015, 48, 3088-3096.	0.9	41
14	Characterization of the anisotropic mechanical behaviour of colonic tissues: experimental activity and constitutive formulation. Experimental Physiology, 2014, 99, 759-771.	0.9	40
15	Constitutive formulations for the mechanical investigation of colonic tissues. Journal of Biomedical Materials Research - Part A, 2014, 102, 1243-1254.	2.1	39
16	Experimental investigation of the biomechanics of urethral tissues and structures. Experimental Physiology, 2016, 101, 641-656.	0.9	39
17	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
18	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

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19	Investigation of bone inelastic response in interaction phenomena with dental implants. Dental Materials, 2008, 24, 561-569.	1.6	32
20	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
21	A procedure for the computational investigation of stress-relaxation phenomena. Mechanics of Time-Dependent Materials, 2013, 17, 25-38.	2.3	31
22	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
23	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
24	A biomechanical approach to the analysis of methods and procedures of bariatric surgery. Journal of Biomechanics, 2017, 56, 32-41.	0.9	28
25	Dental implants press fit phenomena: Biomechanical analysis considering bone inelastic response. Dental Materials, 2009, 25, 573-581.	1.6	26
26	Investigation of foot plantar pressure: experimental and numerical analysis. Medical and Biological Engineering and Computing, 2010, 48, 1167-1174.	1.6	25
27	Porcine Small Intestinal Submucosa (SIS) as a Suitable Scaffold for the Creation of a Tissue-Engineered Urinary Conduit: Decellularization, Biomechanical and Biocompatibility Characterization Using New Approaches. International Journal of Molecular Sciences, 2022, 23, 2826.	1.8	25
28	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
29	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
30	Analysis of the biomechanical behaviour of gastrointestinal regions adopting an experimental and computational approach. Computer Methods and Programs in Biomedicine, 2014, 113, 338-345.	2.6	22
31	Computational tools for the analysis of mechanical functionality of gastrointestinal structures. Technology and Health Care, 2013, 21, 271-283.	0.5	20
32	Computational Models for the Mechanical Investigation of Stomach Tissues and Structure. Annals of Biomedical Engineering, 2019, 47, 1237-1249.	1.3	20
33	Flow and Volume Dependence of Rat Airway Resistance During Constant Flow Inflation and Deflation. Lung, 2011, 189, 511-518.	1.4	18
34	Experimental investigation of the structural behavior of equine urethra. Computer Methods and Programs in Biomedicine, 2017, 141, 35-41.	2.6	17
35	Computational Biomechanics: In-Silico Tools for the Investigation of Surgical Procedures and Devices. Bioengineering, 2020, 7, 48.	1.6	17
36	Characterization of soft tissue mechanics with aging. IEEE Engineering in Medicine and Biology Magazine, 2008, 27, 15-22.	1.1	15

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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	Biomechanics of stomach tissues and structure in patients with obesity. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103883.	1.5	15
39	A Review of Recent Findings About Stress-Relaxation in the Respiratory System Tissues. Lung, 2014, 192, 833-839.	1.4	12
40	Urethral lumen occlusion by artificial sphincteric devices: a computational biomechanics approach. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1439-1446.	1.4	12
41	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
42	Coupled experimental and computational approach to stomach biomechanics: Towards a validated characterization of gastric tissues mechanical properties. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 125, 104914.	1.5	12
43	Mechanical behavior of infrapatellar fat pad of patients affected by osteoarthritis. Journal of Biomechanics, 2022, 131, 110931.	0.9	12
44	Interaction phenomena between a cuff of an artificial urinary sphincter and a urethral phantom. Artificial Organs, 2019, 43, 888-896.	1.0	11
45	Anisotropic computational modelling of bony structures from CT data: An almost automatic procedure. Computer Methods and Programs in Biomedicine, 2020, 189, 105319.	2.6	11
46	Experimental and computational investigation of Morse taper conometric system reliability for the definition of fixed connections between dental implants and prostheses. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 674-681.	1.0	10
47	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
48	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
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	A Procedure for the Automatic Analysis of High-Resolution Manometry Data to Support the Clinical Diagnosis of Esophageal Motility Disorders. IEEE Transactions on Biomedical Engineering, 2018, 65, 1476-1485.	2.5	9
51	Computational Tools for the Investigation of the Male Lower Urinary Tract Functionality in Health and Disease. Journal of Medical and Biological Engineering, 2021, 41, 203-215.	1.0	9
52	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.	1.0	8
53	Biomechanical Investigation of the Stomach Following Different Bariatric Surgery Approaches. Bioengineering, 2020, 7, 159.	1.6	8
54	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

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55	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
56	Numerical model for healthy and injured ankle ligaments. Australasian Physical and Engineering Sciences in Medicine, 2017, 40, 289-295.	1.4	7
57	Urethral lumen occlusion by artificial sphincteric device: Evaluation of degraded tissues effects. Journal of Biomechanics, 2017, 65, 75-81.	0.9	7
58	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
59	Computational evaluation of laparoscopic sleeve gastrectomy. Updates in Surgery, 2021, 73, 2253-2262.	0.9	7
60	Computational methods for the investigation of ski boots ergonomics. Sports Engineering, 2021, 24, 1.	0.5	6
61	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
62	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
63	Investigation of the biomechanical behaviour of articular cartilage in hindfoot joints. Acta of Bioengineering and Biomechanics, 2014, 16, 57-65.	0.2	5
64	A review of the effects of some endocrinological factors on respiratory mechanics. Journal of Enzyme Inhibition and Medicinal Chemistry, 2016, 31, 890-893.	2.5	4
65	NUMERICAL ANALYSIS OF THE FOOT IN HEALTHY AND DEGENERATIVE CONDITIONS. Journal of Mechanics in Medicine and Biology, 2017, 17, 1750095.	0.3	4
66	Mechanical behaviour of healthy versus alkali-lesioned corneas by a porcine organ culture model. BMC Veterinary Research, 2021, 17, 340.	0.7	4
67	Patient-specific stomach biomechanics before and after laparoscopic sleeve gastrectomy. Surgical Endoscopy and Other Interventional Techniques, 2022, 36, 7998-8011.	1.3	4
68	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
69	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
70	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
71	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
72	A REVIEW OF THE EFFECTS OF BODY TEMPERATURE VARIATIONS ON RESPIRATORY MECHANICS: MEASUREMENTS BY THE END-INFLATION OCCLUSION METHOD IN THE RAT. Journal of Mechanics in Medicine and Biology, 2015, 15, 1530006.	0.3	2

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73	Conformation and mechanics of the polymeric cuff of artificial urinary sphincter. Mathematical Biosciences and Engineering, 2020, 17, 3894-3908.	1.0	2
74	Constitutive Formulation for Numerical Analysis of Visco-Hyperelastic Damage Phenomena in Soft Biological Tissues. , 2006, , 467.		1
75	The volume dependence of stress relaxation in the rat respiratory system. Experimental Lung Research, 2014, 40, 137-143.	0.5	1
76	A COUPLED EXPERIMENTAL AND NUMERICAL APPROACH TO CHARACTERIZE THE ANISOTROPIC MECHANICAL BEHAVIOR OF AORTIC TISSUES. Journal of Mechanics in Medicine and Biology, 2020, 20, 2050027.	0.3	1
77	A procedure for the constitutive analysis of creep phenomena in polymeric materials. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2016, 230, 674-680.	0.7	0
78	Mechanical properties variation and constitutive modelling of biomedical polymers after sterilization. Acta of Bioengineering and Biomechanics, 2017, 19, 3-9.	0.2	0