Pedro Martins

List of Publications by Year in descending order

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68 papers	2,190 citations	361045 20 h-index	223531 46 g-index
80 all docs	80 docs citations	80 times ranked	2017 citing authors

#	Article	IF	Citations
1	A Comparative Study of Several Material Models for Prediction of Hyperelastic Properties: Application to Silicone-Rubber and Soft Tissues. Strain, 2006, 42, 135-147.	1.4	382
2	Static analysis of functionally graded plates using third-order shear deformation theory and a meshless method. Composite Structures, 2005, 69, 449-457.	3.1	370
3	Analysis of composite plates using higher-order shear deformation theory and a finite point formulation based on the multiquadric radial basis function method. Composites Part B: Engineering, 2003, 34, 627-636.	5.9	241
4	Radial basis functions and higher-order shear deformation theories in the analysis of laminated composite beams and plates. Composite Structures, 2004, 66, 287-293.	3.1	138
5	Biomechanical properties of breast tissue, a state-of-the-art review. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1307-1323.	1.4	86
6	On modelling damage process in vaginal tissue. Journal of Biomechanics, 2009, 42, 642-651.	0.9	74
7	Mechanical characterization of the softening behavior of human vaginal tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 275-283.	1.5	64
8	Mechanical characterization and constitutive modelling of the damage process in rectus sheath. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 8, 111-122.	1.5	63
9	Mechanical properties of polypropylene mesh used in pelvic floor repair. International Urogynecology Journal, 2008, 19, 375-380.	0.7	62
10	Experimental study and constitutive modeling of the viscoelastic mechanical properties of the human prolapsed vaginal tissue. Biomechanics and Modeling in Mechanobiology, 2010, 9, 35-44.	1.4	60
11	Uniaxial mechanical behavior of the human female bladder. International Urogynecology Journal, 2011, 22, 991-995.	0.7	52
12	Differential evolution for optimization of functionally graded beams. Composite Structures, 2015, 133, 1191-1197.	3.1	52
13	Biomechanical Properties of Vaginal Tissue in Women with Pelvic Organ Prolapse. Gynecologic and Obstetric Investigation, 2013, 75, 85-92.	0.7	44
14	The Influence of the Mechanical Behaviour of the Middle Ear Ligaments: A Finite Element Analysis. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2011, 225, 68-76.	1.0	39
15	Prediction of nonlinear elastic behaviour of vaginal tissue: experimental results and model formulation. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 327-337.	0.9	38
16	Strength of round and uterosacral ligaments: a biomechanical study. Archives of Gynecology and Obstetrics, 2013, 287, 313-318.	0.8	34
17	Differential evolution for free vibration optimization of functionally graded nano beams. Composite Structures, 2016, 156, 29-34.	3.1	29
18	Maximization of fundamental frequency of layered composites using differential evolution optimization. Composite Structures, 2018, 183, 77-83.	3.1	28

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19	Biomechanical and morphological properties of the multiparous ovine vagina and effect of subsequent pregnancy. Journal of Biomechanics, 2017, 57, 94-102.	0.9	26
20	Experimental study of the influence of senescence in the biomechanical properties of the temporal tendon and deep temporal fascia based on uniaxial tension tests. Journal of Biomechanics, 2012, 45, 199-201.	0.9	25
21	The influence of muscles activation on the dynamical behaviour of the tympano-ossicular system of the middle ear. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 392-402.	0.9	20
22	Methodology for Mechanical Characterization of Soft Biological Tissues: Arteries. Procedia Engineering, 2015, 110, 74-81.	1.2	19
23	Differential evolution optimization for the analysis of composite plates with radial basis collocation meshless method. Composite Structures, 2015, 124, 317-326.	3.1	17
24	Mechanical analysis of PDMS material using biaxial test. AIMS Materials Science, 2019, 6, 97-110.	0.7	16
25	Solving time-dependent engineering problems with multiquadrics. Journal of Sound and Vibration, 2005, 280, 595-610.	2.1	14
26	Translation of biomechanics research to urogynecology. Archives of Gynecology and Obstetrics, 2010, 282, 149-155.	0.8	12
27	Cavitated Conglomerate Mass in Silicosis Indicating Associated Tuberculosis. Case Reports in Medicine, 2010, 2010, 1-4.	0.3	11
28	Vaginal Tissue Properties versus Increased Intra-Abdominal Pressure: A Preliminary Biomechanical Study. Gynecologic and Obstetric Investigation, 2011, 71, 145-150.	0.7	11
29	ANALYSIS OF EARDRUM PATHOLOGIES USING THE FINITE ELEMENT METHOD. Journal of Mechanics in Medicine and Biology, 2014, 14, 1450034.	0.3	11
30	Linking hyperelastic theoretical models and experimental data of vaginal tissue through histological data. Journal of Biomechanics, 2019, 82, 271-279.	0.9	11
31	The biomechanical effects of stapes replacement by prostheses on the tympanoâ€ossicular chain. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 1409-1420.	1.0	9
32	Effects of the fibers distribution in the human eardrum: A biomechanical study. Journal of Biomechanics, 2016, 49, 1518-1523.	0.9	9
33	The effect of consecutive pregnancies on the ovine pelvic soft tissues: Link between biomechanical and histological components. Annals of Anatomy, 2019, 222, 166-172.	1.0	9
34	Analysis of Thin Isotropic Rectangular and Circular Plates with Multiquadrics. Strength of Materials, 2005, 37, 163-173.	0.2	8
35	In vitro simulation of in vivo degradation and cyclic loading of novel degradable electrospun meshes for prolapse repair. Polymer Testing, 2019, 78, 105957.	2.3	8
36	Necromechanics: Death-induced changes in the mechanical properties of human tissues. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 343-349.	1.0	7

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37	TOTAL OSSICULAR REPLACEMENT PROSTHESIS OF THE MIDDLE EAR: A BIOMECHANICAL ANALYSIS. Journal of Mechanics in Medicine and Biology, 2015, 15, 1540006.	0.3	7
38	Finite element analysis of the transfer of sound in the myringosclerotic ear. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 248-256.	0.9	7
39	In Vitro Degradation of Polydimethylsiloxanes in Breast Implant Applications. Journal of Applied Biomaterials and Functional Materials, 2017, 15, e369-e375.	0.7	7
40	Evaluation of pelvic floor muscle cross-sectional area using a 3D computer model based on MRI in women with and without prolapse. European Journal of Obstetrics, Gynecology and Reproductive Biology, 2010, 153, 110-111.	0.5	6
41	Biomechanical Properties of Breast Tissue. , 2013, , .		6
42	Breast implants rupture induced by fatigue phenomena. Journal of Plastic, Reconstructive and Aesthetic Surgery, 2017, 70, 552-553.	0.5	6
43	An experimental analysis of shell failure in breast implants. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 72, 22-28.	1.5	6
44	In vitro study of the mechanical performance of hernia mesh under cyclic loading. Journal of Materials Science: Materials in Medicine, 2017, 28, 176.	1.7	6
45	Mechanical Performance of Poly Implant Prosthesis (PIP) Breast Implants: A Comparative Study. Aesthetic Plastic Surgery, 2017, 41, 250-264.	0.5	5
46	Predicting the mechanical response of the vaginal wall in ball burst tests based on histology. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 1925-1933.	1.6	5
47	PIP breast implant ruptureâ€"A retrospective study from Portugal. European Journal of Plastic Surgery, 2015, 38, 301-308.	0.3	4
48	A hybrid method to characterise the mechanical behaviour of biological hyper-elastic tissues. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2017, 5, 157-164.	1.3	4
49	The lack of neuropeptide Yâ€Ÿ 1 receptor signaling modulates the chemical and mechanical properties of bone matrix. FASEB Journal, 2020, 34, 4163-4177.	0.2	4
50	Implant shape influence on the mechanical behavior of breast implants. , 2013, , .		3
51	The influence of regional profiles and senescence on the biomechanical properties of the temporalis muscle. Journal of Biomechanics, 2013, 46, 1592-1595.	0.9	2
52	Biomechanical analysis of intact versus ruptured Poly Implant ProthÃ¨se breast implants. Interface Focus, 2019, 9, 20180086.	1.5	2
53	Mechanical characterisation of an organic phantom candidate for breast tissue. Journal of Biomaterials Applications, 2020, 34, 1163-1170.	1.2	2
54	Characterisation of Polycaprolactone Scaffolds Made by Melt Electrospinning Writing for Pelvic Organ Prolapse Correction- a Pilot Study. SSRN Electronic Journal, 0, , .	0.4	2

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55	Preliminary Tests with Screen-Printed Piezoresistive Pressure Sensors on PET and Textile Substrates. , 2022, , .		2
56	Mechanical tests in all regions of the PIP breast implants. , 2015, , .		1
57	3D bioprinting: Parameters optimization for agarose. , 2021, , 39-42.		1
58	DEFINITION OF A TEST-BED FOR EVALUATION OF HOUSE MECHANICAL VENTILATION SYSTEMS. Journal of Biomechanics, 2012, 45, S2.	0.9	0
59	STAPEDOTOMY-HOUGH TECHNIQUE TO CORRECT OTOSCLEROSIS. Journal of Biomechanics, 2012, 45, S183.	0.9	0
60	I-22. EFEITOS DA DESINFEÃ‡ÃƒO QUÃMICA NA TEXTURA E PROPRIEDADES FÃSICAS DOS CONES DE GUTTA-PERCHA. Revista Portuguesa De Estomatologia, Medicina Dentaria E Cirurgia Maxilofacial, 2012, 53, e9.	0.1	0
61	Evaluation of material model parameters of vaginal tissue with different fiber orientation. , 2015, , .		0
62	Breast Implants: Far Beyond Just Aesthetic Surgery. Lecture Notes in Computational Vision and Biomechanics, 2018, , 83-94.	0.5	0
63	Visualization and Interaction with the Male Urinary System using Virtual Reality. , 2019, , .		0
64	Interactive DEMOnstration of Medical Simulations using a Virtual Reality approach: Application to the Male Urinary System. , 2019, , .		0
65	Virtual Reality in the Study of the Male Urinary System. , 2019, , .		0
66	Influence of Age on the Characterization of Elasticity of Prolapsed Vaginal Tissue on a Postmenopausal Women Group. UroToday International Journal, 2008, , .	0.0	0
67	Male Sphincter-Urinary System Behavior Under a Valsalva Maneuver. Lecture Notes in Computational Vision and Biomechanics, 2020, , 639-644.	0.5	0
68	Cog Threads for Transvaginal Prolapse Repair: Ex-Vivo Studies of a Novel Concept. Surgeries, 2022, 3, 101-110.	0.3	0