

Manuel DoblarÃ©

List of Publications by Year in descending order

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259
papers

10,541
citations

30068

54
h-index

53222

85
g-index

264
all docs

264
docs citations

264
times ranked

8103
citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding glioblastoma invasion using physically-guided neural networks with internal variables. PLoS Computational Biology, 2022, 18, e1010019.	3.2	3
2	Data-Driven Computational Simulation in Bone Mechanics. Annals of Biomedical Engineering, 2021, 49, 407-419.	2.5	6
3	Force Spectroscopy Imaging and Constriction Assays Reveal the Effects of Graphene Oxide on the Mechanical Properties of Alginate Microcapsules. ACS Biomaterials Science and Engineering, 2021, 7, 242-253.	5.2	4
4	On the effect of antiresorptive drugs on the bone remodeling of the mandible after dental implantation: a mathematical model. Scientific Reports, 2021, 11, 2792.	3.3	13
5	Prediction and identification of physical systems by means of Physically-Guided Neural Networks with meaningful internal layers. Computer Methods in Applied Mechanics and Engineering, 2021, 381, 113816.	6.6	11
6	Predicting cell behaviour parameters from glioblastoma on a chip images. A deep learning approach. Computers in Biology and Medicine, 2021, 135, 104547.	7.0	9
7	Analysis of the Parametric Correlation in Mathematical Modeling of In Vitro Glioblastoma Evolution Using Copulas. Mathematics, 2021, 9, 27.	2.2	1
8	In Silico Electrophysiological Evaluation of Scaffold Geometries for Cardiac Tissue Engineering. , 2021, , .		1
9	Finite element comparison of the effect of absorbers' design in the surrounding bone of dental implants. International Journal for Numerical Methods in Biomedical Engineering, 2020, 36, e3270.	2.1	10
10	Mathematical formulation and parametric analysis of in vitro cell models in microfluidic devices: application to different stages of glioblastoma evolution. Scientific Reports, 2020, 10, 21193.	3.3	17
11	A multiscale data-driven approach for bone tissue biomechanics. Computer Methods in Applied Mechanics and Engineering, 2020, 368, 113136.	6.6	14
12	A mechano-chemo-biological model for bone remodeling with a new mechano-chemo-transduction approach. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2499-2523.	2.8	15
13	Thermomechanics. Solid Mechanics and Its Applications, 2020, , 53-79.	0.2	0
14	Enabling cell recovery from 3D cell culture microfluidic devices for tumour microenvironment biomarker profiling. Scientific Reports, 2019, 9, 6199.	3.3	33
15	Computational Multiscale Solvers for Continuum Approaches. Materials, 2019, 12, 691.	2.9	7
16	An unsupervised data completion method for physically-based data-driven models. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 120-143.	6.6	12
17	Multiscale Characterisation of Cortical Bone Tissue. Applied Sciences (Switzerland), 2019, 9, 5228.	2.5	4
18	A new reliability-based data-driven approach for noisy experimental data with physical constraints. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 752-774.	6.6	30

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19	Integrated Computational Materials Engineering in Solar Plants: The Virtual Materials Design Project. <i>Jom</i> , 2018, 70, 1659-1669.	1.9	3
20	Glioblastoma on a microfluidic chip: Generating pseudopalisades and enhancing aggressiveness through blood vessel obstruction events. <i>Neuro-Oncology</i> , 2017, 19, now230.	1.2	51
21	Altered Mechano-Electrochemical Behavior of Articular Cartilage in Populations with Obesity. <i>Applied Sciences (Switzerland)</i> , 2016, 6, 186.	2.5	4
22	A PGD-based multiscale formulation for non-linear solid mechanics under small deformations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2016, 305, 806-826.	6.6	12
23	Development and characterization of a microfluidic model of the tumour microenvironment. <i>Scientific Reports</i> , 2016, 6, 36086.	3.3	95
24	Inhomogeneous Response of Articular Cartilage: A Three-Dimensional Multiphasic Heterogeneous Study. <i>PLoS ONE</i> , 2016, 11, e0157967.	2.5	6
25	Study of the Chemotactic Response of Multicellular Spheroids in a Microfluidic Device. <i>PLoS ONE</i> , 2015, 10, e0139515.	2.5	29
26	Chemical-diffusive modeling of the self-healing behavior in concrete. <i>International Journal of Solids and Structures</i> , 2015, 69-70, 392-402.	2.7	31
27	Reduction of Dorsal Displacement of the Proximal and Middle Phalanges Using a Neutral or Angled Implant for Joint Arthrodesis to Treat Hammertoe Deformity. <i>Journal of the American Podiatric Medical Association</i> , 2015, 105, 493-502.	0.3	1
28	Altered swelling and ion fluxes in articular cartilage as a biomarker in osteoarthritis and joint immobilization: a computational analysis. <i>Journal of the Royal Society Interface</i> , 2015, 12, 20141090.	3.4	18
29	Zeolites for the selective adsorption of sulfur hexafluoride. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 18121-18130.	2.8	22
30	Simulation of swallowing dysfunction and mechanical ventilation after a Montgomery T-tube insertion. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2015, 18, 1596-1605.	1.6	5
31	Influence of first proximal phalanx geometry on hallux valgus deformity: a finite element analysis. <i>Medical and Biological Engineering and Computing</i> , 2015, 53, 645-653.	2.8	26
32	Evaluation of the stiffnesses of the Achilles tendon and soleus from the apparent stiffness of the triceps surae. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2015, 229, 28-39.	1.8	6
33	Structural biology response of a collagen hydrogel synthetic extracellular matrix with embedded human fibroblast: computational and experimental analysis. <i>Medical and Biological Engineering and Computing</i> , 2015, 53, 721-735.	2.8	9
34	Parameter-dependent behavior of articular cartilage: 3D mechano-electrochemical computational model. <i>Computer Methods and Programs in Biomedicine</i> , 2015, 122, 491-502.	4.7	9
35	In vitro osteoinduction of human mesenchymal stem cells in biomimetic surface modified titanium alloy implants. <i>Dental Materials Journal</i> , 2014, 33, 305-312.	1.8	8
36	Cartilage Dysfunction in ALS Patients as Side Effect of Motion Loss: 3D Mechano-Electrochemical Computational Model. <i>BioMed Research International</i> , 2014, 2014, 1-13.	1.9	8

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37	Computational modelling of multi-cell migration in a multi-signalling substrate. <i>Physical Biology</i> , 2014, 11, 026002.	1.8	24
38	Impedance-based outflow boundary conditions for human carotid haemodynamics. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 1248-1260.	1.6	35
39	Epicardial delivery of collagen patches with adipose-derived stem cells in rat and minipig models of chronic myocardial infarction. <i>Biomaterials</i> , 2014, 35, 143-151.	11.4	90
40	Computational modelling and analysis of mechanical conditions on cell locomotion and cell-cell interaction. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 678-693.	1.6	21
41	Zeolite screening for the separation of gas mixtures containing SO ₂ , CO ₂ and CO. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 19884.	2.8	81
42	A pre-operative planning for endoprosthetic human tracheal implantation: a decision support system based on robust design of experiments. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 750-767.	1.6	4
43	A coupled mechano-biochemical model for bone adaptation. <i>Journal of Mathematical Biology</i> , 2014, 69, 1383-1429.	1.9	26
44	Evolution of the properties of a poly(L-lactic acid) scaffold with double porosity during <i>in vitro</i> degradation in a phosphate-buffered saline solution. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	16
45	Numerical Calculation of Wind Loads over Solar Collectors. <i>Energy Procedia</i> , 2014, 49, 163-173.	1.8	27
46	Culture of human bone marrow-derived mesenchymal stem cells on of poly(L-lactic acid) scaffolds: potential application for the tissue engineering of cartilage. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2013, 21, 1737-1750.	4.2	41
47	Computational Methodology to Determine Fluid Related Parameters of Non Regular Three-Dimensional Scaffolds. <i>Annals of Biomedical Engineering</i> , 2013, 41, 2367-2380.	2.5	23
48	Effect of Sample Pre-Contact on the Experimental Evaluation of Cartilage Mechanical Properties. <i>Experimental Mechanics</i> , 2013, 53, 911-917.	2.0	11
49	3D computational modelling of cell migration: A mechano-chemo-thermo-electrotaxis approach. <i>Journal of Theoretical Biology</i> , 2013, 329, 64-73.	1.7	34
50	FE2 multiscale in linear elasticity based on parametrized microscale models using proper generalized decomposition. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 257, 183-202.	6.6	36
51	Preparation and characterization of collagen-based ADSC-carrier sheets for cardiovascular application. <i>Acta Biomaterialia</i> , 2013, 9, 6075-6083.	8.3	39
52	Stress at the Second Metatarsal Bone After Correction of Hammertoe and Claw Toe Deformity. <i>Journal of the American Podiatric Medical Association</i> , 2013, 103, 260-273.	0.3	6
53	Biomimetic hydroxyapatite coating on pore walls improves osteointegration of poly(L-lactic acid) scaffolds. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2013, 101B, 173-186.	3.4	61
54	Hierarchical micro-adaptation of biological structures by mechanical stimuli. <i>International Journal of Solids and Structures</i> , 2013, 50, 2353-2370.	2.7	6

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55	Insights on the Molecular Mechanisms of Hydrogen Adsorption in Zeolites. <i>Journal of Physical Chemistry C</i> , 2013, 117, 14374-14380.	3.1	33
56	Multiparametric response surface construction by means of proper generalized decomposition: An extension of the PARAFAC procedure. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 253, 543-557.	6.6	10
57	Response of Sheep Chondrocytes to Changes in Substrate Stiffness from 2 to 20 Pa: Effect of Cell Passaging. <i>Connective Tissue Research</i> , 2013, 54, 159-166.	2.3	31
58	CFD analysis of the human airways under impedance-based boundary conditions: application to healthy, diseased and stented trachea. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013, 16, 198-216.	1.6	27
59	An affine micro-sphere-based constitutive model, accounting for junctional sliding, can capture F-actin network mechanics. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013, 16, 1002-1012.	1.6	4
60	In vitro osteoinduction of human mesenchymal stem cells in biomimetic surface modified titanium alloy implants. <i>Dental Materials Journal</i> , 2012, 31, 843-850.	1.8	10
61	Stress transfer properties of different commercial dental implants: a finite element study. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2012, 15, 263-273.	1.6	25
62	Influence of the macro and micro-porous structure on the mechanical behavior of poly(l-lactic acid) scaffolds. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 3141-3149.	3.1	46
63	Computational fluid-dynamics optimization of a human tracheal endoprosthesis. <i>International Communications in Heat and Mass Transfer</i> , 2012, 39, 575-581.	5.6	6
64	Mechanical stress redistribution in the calcaneus after autologous bone harvesting. <i>Journal of Biomechanics</i> , 2012, 45, 1219-1226.	2.1	30
65	Anisotropic material behaviours of soft tissues in human trachea: An experimental study. <i>Journal of Biomechanics</i> , 2012, 45, 1717-1723.	2.1	41
66	Anisotropic microsphere-based approach to damage in soft fibered tissue. <i>Biomechanics and Modeling in Mechanobiology</i> , 2012, 11, 595-608.	2.8	37
67	Proper generalized decomposition of time-multiscale models. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 90, 569-596.	2.8	52
68	Influence of intraocular pressure on the photorefractive keratectomy for myopia correction. a numerical analysis. <i>Acta Ophthalmologica</i> , 2012, 90, 0-0.	1.1	0
69	An Anisotropic Microsphere-Based Approach for Fiber Orientation Adaptation in Soft Tissue. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 3500-3503.	4.2	4
70	A Decision Support System for Endoprosthetic Patient-Specific Surgery of the Human Trachea. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2011, , 281-334.	1.0	0
71	Is arterial wall-strain stiffening an additional process responsible for atherosclerosis in coronary bifurcations?: an in vivo study based on dynamic CT and MRI. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2011, 301, H1097-H1106.	3.2	42
72	Mechanical characterization and numerical simulation of polyether-ether-ketone (PEEK) cranial implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 1819-1832.	3.1	70

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73	Quantification of Restitution Dispersion From the Dynamic Changes of the STS-Wave Peak to End, Measured at the Surface ECG. IEEE Transactions on Biomedical Engineering, 2011, 58, 1172-1182.	4.2	39
74	Modularity in Developmental Biology and Artificial Organs: A Missing Concept in Tissue Engineering. Artificial Organs, 2011, 35, 656-662.	1.9	24
75	Mechanical behaviour of synthetic surgical meshes: Finite element simulation of the herniated abdominal wall. Acta Biomaterialia, 2011, 7, 3905-3913.	8.3	87
76	Mechanical and histological characterization of the abdominal muscle. A previous step to modelling hernia surgery. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 392-404.	3.1	70
77	Experimental study and constitutive modelling of the passive mechanical properties of the porcine carotid artery and its relation to histological analysis: Implications in animal cardiovascular device trials. Medical Engineering and Physics, 2011, 33, 665-676.	1.7	46
78	FE simulation of human trachea swallowing movement before and after the implantation of an endoprosthesis. Applied Mathematical Modelling, 2011, 35, 4902-4912.	4.2	14
79	Mechanical properties of cross-linked collagen meshes after human adipose derived stromal cells seeding. Journal of Biomedical Materials Research - Part A, 2011, 96A, 341-348.	4.0	9
80	Modeling of the fluid structure interaction of a human trachea under different ventilation conditions. International Communications in Heat and Mass Transfer, 2011, 38, 10-15.	5.6	27
81	Numerical modeling of a human stented trachea under different stent designs. International Communications in Heat and Mass Transfer, 2011, 38, 855-862.	5.6	30
82	Mechanical characterization of the softening behavior of human vaginal tissue. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 275-283.	3.1	64
83	FSI Analysis of a Healthy and a Stenotic Human Trachea Under Impedance-Based Boundary Conditions. Journal of Biomechanical Engineering, 2011, 133, 021001.	1.3	34
84	Numerical simulation of bone remodelling around dental implants. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2011, 225, 897-906.	1.8	15
85	FSI Analysis of a Human Trachea Before and After Prosthesis Implantation. Journal of Biomechanical Engineering, 2011, 133, 071003.	1.3	31
86	Modelling bone tissue engineering. Towards an understanding of the role of scaffold design parameters. Computational Methods in Applied Sciences (Springer), 2011, , 71-90.	0.3	2
87	Patient-specific models of human trachea to predict mechanical consequences of endoprosthesis implantation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2881-2896.	3.4	21
88	On the use of the Bingham statistical distribution in microsphere-based constitutive models for arterial tissue. Mechanics Research Communications, 2010, 37, 700-706.	1.8	48
89	Experimental characterization and constitutive modeling of the mechanical behavior of the human trachea. Medical Engineering and Physics, 2010, 32, 76-82.	1.7	86
90	Biomechanical response of a mandible in a patient affected with hemifacial microsomia before and after distraction osteogenesis. Medical Engineering and Physics, 2010, 32, 860-866.	1.7	13

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91	Experimental study and constitutive modeling of the viscoelastic mechanical properties of the human prolapsed vaginal tissue. <i>Biomechanics and Modeling in Mechanobiology</i> , 2010, 9, 35-44.	2.8	60
92	Growth mixture model of distraction osteogenesis: effect of pre-traction stresses. <i>Biomechanics and Modeling in Mechanobiology</i> , 2010, 9, 103-115.	2.8	34
93	Unraveling Changes in Myocardial Contractility During Human Fetal Growth: A Finite Element Analysis Based on In Vivo Ultrasound Measurements. <i>Annals of Biomedical Engineering</i> , 2010, 38, 2702-2715.	2.5	9
94	FSI Analysis of the Coughing Mechanism in a Human Trachea. <i>Annals of Biomedical Engineering</i> , 2010, 38, 1556-1565.	2.5	47
95	Adaptive Macro Finite Elements for the Numerical Solution of Monodomain Equations in Cardiac Electrophysiology. <i>Annals of Biomedical Engineering</i> , 2010, 38, 2331-2345.	2.5	109
96	On the Modelling of Biological Patterns with Mechanochemical Models: Insights from Analysis and Computation. <i>Bulletin of Mathematical Biology</i> , 2010, 72, 400-431.	1.9	13
97	A higher order method based on local maximum entropy approximation. <i>International Journal for Numerical Methods in Engineering</i> , 2010, 83, 741-764.	2.8	31
98	Numerical framework for patient-specific computational modelling of vascular tissue. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2010, 26, 35-51.	2.1	42
99	A rotating bed system bioreactor enables cultivation of primary osteoblasts on well-characterized sponceram® regarding structural and flow properties. <i>Biotechnology Progress</i> , 2010, 26, 671-678.	2.6	11
100	An accurate validation of a computational model of a human lumbosacral segment. <i>Journal of Biomechanics</i> , 2010, 43, 334-342.	2.1	76
101	A constitutive formulation of vascular tissue mechanics including viscoelasticity and softening behaviour. <i>Journal of Biomechanics</i> , 2010, 43, 984-989.	2.1	66
102	Scaffold microarchitecture determines internal bone directional growth structure: A numerical study. <i>Journal of Biomechanics</i> , 2010, 43, 2480-2486.	2.1	43
103	Influence of the frequency of the external mechanical stimulus on bone healing: A computational study. <i>Medical Engineering and Physics</i> , 2010, 32, 363-371.	1.7	35
104	A comparison of implicit and explicit natural element methods in large strains problems: Application to soft biological tissues modeling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 1691-1700.	6.6	27
105	The Effect of Intraocular Pressure on the Outcome of Myopic Photorefractive Keratectomy: A Numerical Approach. <i>Journal of Healthcare Engineering</i> , 2010, 1, 461-476.	1.9	7
106	An Interspecies Computational Study on Limb Lengthening. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2010, 224, 1245-1256.	1.8	18
107	Advantages and Drawbacks of Proximal Interphalangeal Joint Fusion Versus Flexor Tendon Transfer in the Correction of Hammer and Claw Toe Deformity. A Finite-Element Study. <i>Journal of Biomechanical Engineering</i> , 2010, 132, 051002.	1.3	19
108	Prediction of nonlinear elastic behaviour of vaginal tissue: experimental results and model formulation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2010, 13, 327-337.	1.6	38

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109	FSI Analysis of the Human Trachea under Impedance-Based Boundary Conditions. IFMBE Proceedings, 2010, , 710-713.	0.3	0
110	Comparative analysis of bone remodelling models with respect to computerised tomography-based finite element models of bone. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 71-80.	1.6	29
111	Modelling Living Tissues: Mechanical and Mechanobiological Aspects. Mathematics in Industry, 2010, , 3-8.	0.3	2
112	A numerical model of the eye for simulation of corneal surgery and corneal biomechanical properties. Acta Ophthalmologica, 2010, 88, 0-0.	1.1	0
113	Load Transfer Mechanism for Different Metatarsal Geometries: A Finite Element Study. Journal of Biomechanical Engineering, 2009, 131, 021011.	1.3	57
114	Novel 3D biomaterials for tissue engineering based on collagen and macroporous ceramics. Materialwissenschaft Und Werkstofftechnik, 2009, 40, 54-60.	0.9	9
115	On the use of non-linear transformations for the evaluation of anisotropic rotationally symmetric directional integrals. Application to the stress analysis in fibred soft tissues. International Journal for Numerical Methods in Engineering, 2009, 79, 474-504.	2.8	31
116	A bone remodelling model including the directional activity of BMUs. Biomechanics and Modeling in Mechanobiology, 2009, 8, 111-127.	2.8	33
117	Modeling distraction osteogenesis: analysis of the distraction rate. Biomechanics and Modeling in Mechanobiology, 2009, 8, 323-335.	2.8	45
118	A reaction-diffusion model for long bones growth. Biomechanics and Modeling in Mechanobiology, 2009, 8, 381-395.	2.8	33
119	Does Increased Bone-Cement Interface Strength have Negative Consequences for Bulk Cement Integrity? A Finite Element Study. Annals of Biomedical Engineering, 2009, 37, 454-466.	2.5	15
120	Study on Tracheal Collapsibility, Compliance, and Stress by Considering Nonlinear Mechanical Property of Cartilage. Annals of Biomedical Engineering, 2009, 37, 2380-2389.	2.5	17
121	The Effect of Material Model Formulation in the Stress Analysis of Abdominal Aortic Aneurysms. Annals of Biomedical Engineering, 2009, 37, 2218-2221.	2.5	56
122	On the effect of substrate curvature on cell mechanics. Biomaterials, 2009, 30, 6674-6686.	11.4	83
123	Bone ingrowth on the surface of endosseous implants. Part 2: Theoretical and numerical analysis. Journal of Theoretical Biology, 2009, 260, 13-26.	1.7	20
124	Study of tracheal collapsibility, compliance and stress by considering its asymmetric geometry. Medical Engineering and Physics, 2009, 31, 328-336.	1.7	8
125	On modelling damage process in vaginal tissue. Journal of Biomechanics, 2009, 42, 642-651.	2.1	74
126	An anisotropic pseudo-elastic approach for modelling Mullins effect in fibrous biological materials. Mechanics Research Communications, 2009, 36, 784-790.	1.8	54

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127	Permeability evaluation of 45S5 Bioglass®-based scaffolds for bone tissue engineering. <i>Journal of Biomechanics</i> , 2009, 42, 257-260.	2.1	117
128	Finite-element simulation of flexor digitorum longus or flexor digitorum brevis tendon transfer for the treatment of claw toe deformity. <i>Journal of Biomechanics</i> , 2009, 42, 1697-1704.	2.1	40
129	Anisotropic micro-sphere-based finite elasticity applied to blood vessel modelling. <i>Journal of the Mechanics and Physics of Solids</i> , 2009, 57, 178-203.	4.8	114
130	Bone ingrowth on the surface of endosseous implants. Part 1: Mathematical model. <i>Journal of Theoretical Biology</i> , 2009, 260, 1-12.	1.7	54
131	Appearance and location of secondary ossification centres may be explained by a reaction-diffusion mechanism. <i>Computers in Biology and Medicine</i> , 2009, 39, 554-561.	7.0	31
132	Computational modelling of bone cement polymerization: Temperature and residual stresses. <i>Computers in Biology and Medicine</i> , 2009, 39, 751-759.	7.0	19
133	On the Mullins effect and hysteresis of fibered biological materials: A comparison between continuous and discontinuous damage models. <i>International Journal of Solids and Structures</i> , 2009, 46, 1727-1735.	2.7	78
134	Numerical modeling of a mechano-chemical theory for wound contraction analysis. <i>International Journal of Solids and Structures</i> , 2009, 46, 3597-3606.	2.7	63
135	On scaffold designing for bone regeneration: A computational multiscale approach. <i>Acta Biomaterialia</i> , 2009, 5, 219-229.	8.3	183
136	Effect of Limbal Relaxing Incisions During Phacoemulsification Surgery Based on Nomogram Review and Numerical Simulation. <i>Cornea</i> , 2009, 28, 1042-1049.	1.7	15
137	A mathematical approach to bone tissue engineering. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 2055-2078.	3.4	40
138	Towards an Isogeometric Meshless Natural Element Method. , 2009, , 237-257.		0
139	On the role of bone damage in calcium homeostasis. <i>Journal of Theoretical Biology</i> , 2008, 254, 704-712.	1.7	28
140	An experimental study of the mouse skin behaviour: Damage and inelastic aspects. <i>Journal of Biomechanics</i> , 2008, 41, 93-99.	2.1	86
141	An accurate finite element model of the cervical spine under quasi-static loading. <i>Journal of Biomechanics</i> , 2008, 41, 523-531.	2.1	82
142	On modelling nonlinear viscoelastic effects in ligaments. <i>Journal of Biomechanics</i> , 2008, 41, 2659-2666.	2.1	66
143	Experimental study and constitutive modelling of the passive mechanical properties of the ovine infrarenal vena cava tissue. <i>Journal of Biomechanics</i> , 2008, 41, 3038-3045.	2.1	55
144	A mathematical model for bone tissue regeneration inside a specific type of scaffold. <i>Biomechanics and Modeling in Mechanobiology</i> , 2008, 7, 355-366.	2.8	84

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145	Clenching TMJs-Loads Increases in Partial Edentates: A 3D Finite Element Study. <i>Annals of Biomedical Engineering</i> , 2008, 36, 1014-1023.	2.5	30
146	On finite strain damage of viscoelastic fibred materials. Application to soft biological tissues. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 74, 1198-1218.	2.8	57
147	Higher order natural element methods: Towards an isogeometric meshless method. <i>International Journal for Numerical Methods in Engineering</i> , 2008, 74, 1928-1954.	2.8	20
148	Mechanical and flow characterization of Sponceram® carriers: Evaluation by homogenization theory and experimental validation. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2008, 87B, 42-48.	3.4	32
149	Computational simulation of dental implant osseointegration through resonance frequency analysis. <i>Journal of Biomechanics</i> , 2008, 41, 316-325.	2.1	29
150	Finite element simulation of arcuates for astigmatism correction. <i>Journal of Biomechanics</i> , 2008, 41, 797-805.	2.1	62
151	Modelling adaptative volumetric finite growth in patient-specific residually stressed arteries. <i>Journal of Biomechanics</i> , 2008, 41, 1773-1781.	2.1	28
152	Nonlinear mechanical property of tracheal cartilage: A theoretical and experimental study. <i>Journal of Biomechanics</i> , 2008, 41, 1995-2002.	2.1	29
153	Dynamic 3D FE modelling of the human temporomandibular joint during whiplash. <i>Medical Engineering and Physics</i> , 2008, 30, 700-709.	1.7	20
154	A finite element model to accurately predict real deformations of the breast. <i>Medical Engineering and Physics</i> , 2008, 30, 1089-1097.	1.7	100
155	Finite element implementation of a stochastic three dimensional finite-strain damage model for fibrous soft tissue. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 946-958.	6.6	35
156	Application of the natural element method to finite deformation inelastic problems in isotropic and fiber-reinforced biological soft tissues. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 1983-1996.	6.6	17
157	Micro-macro numerical modelling of bone regeneration in tissue engineering. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 3092-3107.	6.6	60
158	Computer simulation of damage on distal femoral articular cartilage after meniscectomies. <i>Computers in Biology and Medicine</i> , 2008, 38, 69-81.	7.0	37
159	Fourth-order compact schemes with adaptive time step for monodomain reaction-diffusion equations. <i>Journal of Computational and Applied Mathematics</i> , 2008, 216, 39-55.	2.0	18
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