Yongtao Lu

List of Publications by Year
in descending order

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56	692	777949 13	721071 23
papers	citations	h-index	g-index

62	62	62	698
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparison of the biomechanical performance of three spinal implants for treating the wedge-shaped burst fractures. Medicine in Novel Technology and Devices, 2022, 13, 100109.	0.9	0
2	Mechanism of the traumatic brain injury induced by blast wave using the energy assessment method. Medical Engineering and Physics, 2022, 101, 103767.	0.8	6
3	A Critical Review of the Design, Manufacture, and Evaluation of Bone Joint Replacements for Bone Repair. Materials, 2022, 15, 153.	1.3	6
4	A Critical Review of Additive Manufacturing Techniques and Associated Biomaterials Used in Bone Tissue Engineering. Polymers, 2022, 14, 2117.	2.0	25
5	Comparison of the design maps of TPMS based bone scaffolds using a computational modeling framework simultaneously considering various conditions. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2022, 236, 1157-1168.	1.0	4
6	Compensating the anisotropic mechanical properties of electron beam melting-based Gyroid scaffolds using structural design. International Journal of Mechanical Sciences, 2022, 226, 107442.	3.6	10
7	A three-dimensional finite-element model of gluteus medius muscle incorporating inverse-dynamics-based optimization for simulation of non-uniform muscle contraction. Medical Engineering and Physics, 2021, 87, 38-44.	0.8	7
8	Computational modelling of bone microstructure. , 2021, , 251-276.		0
9	Evaluating the biomechanical interaction between the medical compression stocking and human calf using a highly anatomical fidelity three-dimensional finite element model. Textile Reseach Journal, 2021, 91, 1326-1340.	1.1	5
10	Finite Element Model of Ocular Adduction by Active Extraocular Muscle Contraction. , 2021, 62, 1.		12
11	Influence of nucleotomy on the load sharing in the spinal facet joint under the loading scenarios of different human postures. Medical Engineering and Physics, 2021, 93, 35-41.	0.8	1
12	Sensitivity of the properties of the graduated compression stocking and soft tissues on the lower limb-stocking interfacial pressure using the orthogonal simulation test. Medical Engineering and Physics, 2021, 95, 84-89.	0.8	2
13	A Critical Review on the Design, Manufacturing and Assessment of the Bone Scaffold for Large Bone Defects. Frontiers in Bioengineering and Biotechnology, 2021, 9, 753715.	2.0	14
14	The elastic properties and deformation mechanisms of actin filament networks crosslinked by filamins. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104075.	1.5	10
15	Quantifying the discrepancies in the geometric and mechanical properties of the theoretically designed and additively manufactured scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 112, 104080.	1.5	16
16	Predictive assembling model reveals the self-adaptive elastic properties of lamellipodial actin networks for cell migration. Communications Biology, 2020, 3, 616.	2.0	16
17	Relationship between the morphological, mechanical and permeability properties of porous bone scaffolds and the underlying microstructure. PLoS ONE, 2020, 15, e0238471.	1.1	30
18	Comparison of Biomechanical Performance of Five Different Treatment Approaches for Fixing Posterior Pelvic Ring Injury. Journal of Healthcare Engineering, 2020, 2020, 1-11.	1.1	14

#	Article	IF	Citations
19	Title is missing!. , 2020, 15, e0238471.		0
20	Title is missing!. , 2020, 15, e0238471.		0
21	Title is missing!. , 2020, 15, e0238471.		0
22	Title is missing!. , 2020, 15, e0238471.		0
23	Title is missing!. , 2020, 15, e0238471.		0
24	Title is missing!. , 2020, 15, e0238471.		0
25	Influence of Vitamin D Status and Mechanical Loading on the Morphometric and Mechanical Properties of the Mouse Tibia. Journal of Medical and Biological Engineering, 2019, 39, 523-531.	1.0	1
26	Development of a finite element musculoskeletal model with the ability to predict contractions of three-dimensional muscles. Journal of Biomechanics, 2019, 94, 230-234.	0.9	33
27	Effect of parathyroid hormone on the structural, densitometric and failure behaviors of mouse tibia in the spatiotemporal space. PLoS ONE, 2019, 14, e0219575.	1.1	3
28	A critical review on the three-dimensional finite element modelling of the compression therapy for chronic venous insufficiency. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2019, 233, 1089-1099.	1.0	5
29	The anisotropic elastic behavior of the widely-used triply-periodic minimal surface based scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 99, 56-65.	1.5	71
30	Evaluation of the capability of the simulated dual energy X-ray absorptiometry-based two-dimensional finite element models for predicting vertebral failure loads. Medical Engineering and Physics, 2019, 69, 43-49.	0.8	8
31	The Effect of Manual Wheelchair Propulsion Speed on Usersâ€™ Shoulder Muscle Coordination Patterns in Time-Frequency and Principal Component Analysis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 60-65.	2.7	12
32	Stochastic analysis of a heterogeneous micro-finite element model of a mouse tibia. Medical Engineering and Physics, 2019, 63, 50-56.	0.8	6
33	EVALUATING THE THEORY OF BONE MECHANOREGULATION IN THE PHYSIOLOGICAL LOADING SCENARIO. Journal of Mechanics in Medicine and Biology, 2018, 18, 1850011.	0.3	4
34	Investigating the Longitudinal Effect of Ovariectomy on Bone Properties Using a Novel Spatiotemporal Approach. Annals of Biomedical Engineering, 2018, 46, 749-761.	1.3	7
35	Variogram-based evaluations of DXA correlate with vertebral strength, but do not enhance the prediction compared to aBMD alone. Journal of Biomechanics, 2018, 77, 223-227.	0.9	6
36	Early life vitamin D depletion alters the postnatal response to skeletal loading in growing and mature bone. PLoS ONE, 2018, 13, e0190675.	1.1	11

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37	Threeâ€dimensional multifractal analysis of trabecular bone under clinical computed tomography. Medical Physics, 2017, 44, 6404-6412.	1.6	4
38	Longitudinal effects of Parathyroid Hormone treatment on morphological, densitometric and mechanical properties of mouse tibia. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 244-251.	1.5	33
39	Effect of integration time on the morphometric, densitometric and mechanical properties of the mouse tibia. Journal of Biomechanics, 2017, 65, 203-211.	0.9	26
40	Numerical Investigation on the Biomechanical Performance of Laparoscopic-Assisted Plate Used for Fixing Pelvic Anterior Ring Fracture. Journal of Healthcare Engineering, 2017, 2017, 1-7.	1.1	5
41	The Initial Slope of the Variogram, Foundation of the Trabecular Bone Score, Is Not or Is Poorly Associated With Vertebral Strength. Journal of Bone and Mineral Research, 2016, 31, 341-346.	3.1	26
42	A new algorithm for estimating the rod volume fraction and the trabecular thickness from in vivo computed tomography. Medical Physics, 2016, 43, 6598-6607.	1.6	8
43	Development of a protocol to quantify local bone adaptation over space and time: Quantification of reproducibility. Journal of Biomechanics, 2016, 49, 2095-2099.	0.9	33
44	Evaluation of in-vivo measurement errors associated with micro-computed tomography scans by means of the bone surface distance approach. Medical Engineering and Physics, 2015, 37, 1091-1097.	0.8	20
45	Influence of the specimen scan condition on the finite element voxel model of human vertebral cancellous bone. Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization, 2015, 3, 172-176.	1.3	3
46	The role of patient-mode high-resolution peripheral quantitative computed tomography indices in the prediction of failure strength of the elderly womenâ€™s thoracic vertebral body. Osteoporosis International, 2015, 26, 237-244.	1.3	13
47	The effect of in situ/in vitro three-dimensional quantitative computed tomography image voxel size on the finite element model of human vertebral cancellous bone. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 1208-1213.	1.0	7
48	Finite element analyses of human vertebral bodies embedded in polymethylmethalcrylate or loaded via the hyperelastic intervertebral disc models provide equivalent predictions of experimental strength. Journal of Biomechanics, 2014, 47, 2512-2516.	0.9	29
49	Influence of 3D QCT scan protocol on the QCT-based finite element models of human vertebral cancellous bone. Medical Engineering and Physics, 2014, 36, 1069-1073.	0.8	8
50	Strain changes on the cortical shell of vertebral bodies due to spine ageing: A parametric study using a finite element model evaluated by strain measurements. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 1265-1274.	1.0	12
51	Necessary precision levels for the subchondral mineralised zone thickness of the facet joint to optimise finite-element model. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 224-225.	0.9	0
52	Numerical modelling of the fibreâ€“matrix interaction in biaxial loading for hyperelastic soft tissue models. International Journal for Numerical Methods in Biomedical Engineering, 2012, 28, 401-411.	1.0	4
53	Parametric study of a Hill-type hyperelastic skeletal muscle model. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2011, 225, 437-447.	1.0	4
54	Modelling skeletal muscle fibre orientation arrangement. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 1079-1088.	0.9	14

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55	A visco-hyperelastic model for skeletal muscle tissue under high strain rates. Journal of Biomechanics, 2010, 43, 2629-2632.	0.9	49
56	Finite element modelling of maxillofacial surgery and facial expressionsâ€"a preliminary study. International Journal of Medical Robotics and Computer Assisted Surgery, 2010, 6, 422-430.	1.2	36