

Minliang Liu

List of Publications by Year in descending order

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Version: 2024-02-01

26
papers

855
citations

623188

14
h-index

642321

23
g-index

32
all docs

32
docs citations

32
times ranked

795
citing authors

#	ARTICLE	IF	CITATIONS
1	Engineering analysis of aortic wall stress and root dilatation in the V-shape surgery for treatment of ascending aortic aneurysms. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2022, , .	0.5	3
2	A novel computational growth framework for biological tissues: Application to growth of aortic root aneurysm repaired by the V-shape surgery. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 127, 105081.	1.5	9
3	Ultimate tensile strength and biaxial stress-strain responses of aortic tissues—A clinical-engineering correlation. <i>Applications in Engineering Science</i> , 2022, 10, 100101.	0.5	3
4	Distortion Energy for Deep Learning-Based Volumetric Finite Element Mesh Generation for Aortic Valves. <i>Lecture Notes in Computer Science</i> , 2021, , 485-494.	1.0	5
5	Computation of a probabilistic and anisotropic failure metric on the aortic wall using a machine learning-based surrogate model. <i>Computers in Biology and Medicine</i> , 2021, 137, 104794.	3.9	22
6	A probabilistic and anisotropic failure metric for ascending thoracic aortic aneurysm risk assessment. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 155, 104539.	2.3	8
7	Weakly Supervised Deep Learning for Aortic Valve Finite Element Mesh Generation from 3D CT Images. <i>Lecture Notes in Computer Science</i> , 2021, , 637-648.	1.0	3
8	A generic physics-informed neural network-based constitutive model for soft biological tissues. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 372, 113402.	3.4	54
9	A residual stiffness-based model for the fatigue damage of biological soft tissues. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 143, 104074.	2.3	18
10	A Novel Anisotropic Failure Criterion With Dispersed Fiber Orientations for Aortic Tissues. <i>Journal of Biomechanical Engineering</i> , 2020, 142, .	0.6	19
11	3067 Biomechanical analysis of acute versus chronic aortic dissection flaps. <i>Journal of Clinical and Translational Science</i> , 2019, 3, 102-102.	0.3	2
12	Letter to the editor regarding the paper titled "on the role of material properties in ascending thoracic aortic aneurysms". <i>Computers in Biology and Medicine</i> , 2019, 112, 103373.	3.9	0
13	Identification of in vivo nonlinear anisotropic mechanical properties of ascending thoracic aortic aneurysm from patient-specific CT scans. <i>Scientific Reports</i> , 2019, 9, 12983.	1.6	20
14	Finite element simulation of three dimensional residual stress in the aortic wall using an anisotropic tissue growth model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 92, 188-196.	1.5	17
15	Estimation of in vivo constitutive parameters of the aortic wall using a machine learning approach. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 347, 201-217.	3.4	57
16	On the computation of in vivo transmural mean stress of patient-specific aortic wall. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019, 18, 387-398.	1.4	20
17	On the Identification of Heterogeneous Nonlinear Material Properties of the Aortic Wall from Clinical Gated CT Scans. <i>MCB Molecular and Cellular Biomechanics</i> , 2019, 16, 53-53.	0.3	1
18	A deep learning approach to estimate stress distribution: a fast and accurate surrogate of finite-element analysis. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170844.	1.5	265

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19	Estimation of in vivo mechanical properties of the aortic wall: A multi-resolution direct search approach. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 77, 649-659.	1.5	29
20	A machine learning approach as a surrogate of finite element analysis-based inverse method to estimate the zero-pressure geometry of human thoracic aorta. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e3103.	1.0	29
21	A new inverse method for estimation of in vivo mechanical properties of the aortic wall. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 72, 148-158.	1.5	52
22	A machine learning approach to investigate the relationship between shape features and numerically predicted risk of ascending aortic aneurysm. <i>Biomechanics and Modeling in Mechanobiology</i> , 2017, 16, 1519-1533.	1.4	111
23	Biobased High-Performance Rotary Micromotors for Individually Reconfigurable Micromachine Arrays and Microfluidic Applications. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 6144-6152.	4.0	16
24	A deep learning approach to estimate chemically-treated collagenous tissue nonlinear anisotropic stress-strain responses from microscopy images. <i>Acta Biomaterialia</i> , 2017, 63, 227-235.	4.1	40
25	Airborne particulate matter classification and concentration detection based on 3D printed virtual impactor and quartz crystal microbalance sensor. , 2016, , .		3
26	Airborne particulate matter classification and concentration detection based on 3D printed virtual impactor and quartz crystal microbalance sensor. <i>Sensors and Actuators A: Physical</i> , 2016, 238, 379-388.	2.0	44