Jia Lu

List of Publications by Year
in descending order

67 papers	1,687 citations	279798 23 h-index	302126 39 g-index
67 all docs	67 docs citations	67 times ranked	1359 citing authors

#	Article	IF	Citations
1	Explicit consideration of fiber recruitment in vascular constitutive formulation using beta functions. Journal of the Mechanics and Physics of Solids, 2022, 163, 104837.	4.8	3
2	On strain-based rupture criterion for ascending aortic aneurysm: The role of fiber waviness. Acta Biomaterialia, 2022, 149, 51-59.	8.3	1
3	Prediction of local strength of ascending thoracic aortic aneurysms. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 115, 104284.	3.1	17
4	Estimating aortic thoracic aneurysm rupture risk using tensionâ€“strain data in physiological pressure range: an in vitro study. Biomechanics and Modeling in Mechanobiology, 2021, 20, 683-699.	2.8	10
5	Incorporating fiber recruitment in hyperelastic modeling of vascular tissues by means of kinematic average. Biomechanics and Modeling in Mechanobiology, 2021, 20, 1833-1850.	2.8	6
6	Uniaxial properties of ascending aortic aneurysms in light of effective stretch. Acta Biomaterialia, 2021, 136, 306-313.	8.3	6
7	Norovirus infection results in eIF2Î± independent host translation shut-off and remodels the G3BP1 interactome evading stress granule formation. PLoS Pathogens, 2020, 16, e1008250.	4.7	41
8	A multi-mode Gaussian-based two-step floating catchment area method for measuring accessibility of urban parks. Cities, 2020, 105, 102815.	5.6	85
9	ZerNet: Convolutional Neural Networks on Arbitrary Surfaces Via Zernike Local Tangent Space Estimation. Computer Graphics Forum, 2020, 39, 204-216.	3.0	13
10	School-gentrifying community in the making in China: Its formation mechanisms and socio-spatial consequences. Habitat International, 2019, 93, 102045.	5.8	10
11	The Spatial Equity of Nursing Homes in Changchun: A Multi-Trip Modes Analysis. ISPRS International Journal of Geo-Information, 2019, 8, 223.	2.9	9
12	Determination of pattern allowances for steel castings using the finite element inverse deformation analysis. International Journal of Cast Metals Research, 2019, 32, 123-134.	1.0	4
13	Machine Learning Prediction of Tissue Strength and Local Rupture Risk in Ascending Thoracic Aortic Aneurysms. MCB Molecular and Cellular Biomechanics, 2019, 16, 50-52.	0.7	2
14	Noroviruses subvert the core stress granule component G3BP1 to promote viral VPg-dependent translation. ELife, 2019, 8, .	6.0	48
15	Halogen, Chalcogen, and Pnicogen Bonding Involving Hypervalent Atoms. Chemistry - A European Journal, 2018, 24, 8167-8177.	3.3	68
16	Machine learningâ€“aided exploration of relationship between strength and elastic properties in ascending thoracic aneurysm. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2977.	2.1	17
17	On anisotropy evolution in finite strain plasticity. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800065.	0.2	1
18	Exploring brand preference and its spatial patterns in the Chinese automobile market. Journal of Spatial Science, 2018, 63, 399-417.	1.5	2

#	Article	IF	Citations
19	A New Geographical Cluster View on Passenger Vehicle Purchasing in Chinese Cities. ISPRS International Journal of Geo-Information, 2018, 7, 9.	2.9	3
20	miR-155 induction is a marker of murine norovirus infection but does not contribute to control of replication in vivo. Wellcome Open Research, 2018, 3, 42.	1.8	7
21	Determining the reference geometry of plastically deformed material body undergone monotonic loading and moderately large deformation. Finite Elements in Analysis and Design, 2017, 130, 1-11.	3.2	3
22	Direct biomechanical modeling of trabecular bone using a nonlinear manifold-based volumetric representation. Proceedings of SPIE, 2017, , .	0.8	0
23	Characteristics of thoracic aortic aneurysm rupture in vitro. Acta Biomaterialia, 2016, 42, 286-295.	8.3	24
24	Application of Gravity Model for Restaurants in Lowndes County, Georgia. Papers in Applied Geography, 2016, 2, 326-341.	1.4	4
25	Local mechanical properties of human ascending thoracic aneurysms. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 61, 235-249.	3.1	44
26	Solving membrane stress on deformed configuration using inverse elastostatic and forward penalty methods. Computer Methods in Applied Mechanics and Engineering, 2016, 308, 134-150.	6.6	13
27	On referential and spatial formulations of inverse elastostatic analysis. Computer Methods in Applied Mechanics and Engineering, 2016, 310, 189-207.	6.6	3
28	Blending isogeometric and Lagrangian elements in three-dimensional analysis. Finite Elements in Analysis and Design, 2016, 112, 50-63.	3.2	6
29	Landscape ecology, urban morphology, and CBDs: An analysis of the Columbus, Ohio Metropolitan Area. Applied Geography, 2015, 60, 301-307.	3.7	4
30	Evaluation of dine-in restaurant location and competitiveness: Applications of gravity modeling in Jefferson County, Kentucky. Applied Geography, 2015, 60, 204-209.	3.7	19
31	Pointwise characterization of the elastic properties of planar soft tissues: application to ascending thoracic aneurysms. Biomechanics and Modeling in Mechanobiology, 2015, 14, 967-978.	2.8	34
32	Employment Distribution and Land-Use Structure in the Metropolitan Area of Columbus, Ohio. Journal of the Urban Planning and Development Division, ASCE, 2015, 141, 04014040.	1.7	3
33	Digital image correlation-based point-wise inverse characterization of heterogeneous material properties of gallbladder <i>in vitro</i>. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140152.	2.1	34
34	Dynamic cloth simulation by isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2014, 268, 475-493.	6.6	39
35	On the prospect of patient-specific biomechanics without patient-specific properties of tissues. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 27, 154-166.	3.1	92
36	A Shell-Based Inverse Approach of Stress Analysis in Intracranial Aneurysms. Annals of Biomedical Engineering, 2013, 41, 1505-1515.	2.5	19

#	Article	IF	Citations
37	Blending NURBS and Lagrangian representations in isogeometric analysis. Computer Methods in Applied Mechanics and Engineering, 2013, 257, 117-125.	6.6	7
38	A covariant constitutive theory for anisotropic hyperelastic solids with initial strains. Mathematics and Mechanics of Solids, 2012, 17, 104-119.	2.4	9
39	Landscape ecology, land-use structure, and population density: Case study of the Columbus Metropolitan Area. Landscape and Urban Planning, 2012, 105, 74-85.	7.5	51
40	Identifying heterogeneous anisotropic properties in cerebral aneurysms: a pointwise approach. Biomechanics and Modeling in Mechanobiology, 2011, 10, 177-189.	2.8	28
41	Cylindrical element: Isogeometric model of continuum rod. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 233-241.	6.6	18
42	A stabilized formulation for discrete gradient method. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 860-873.	2.1	1
43	Point-cloud method for image-based biomechanical stress analysis. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1493-1506.	2.1	5
44	Image-based point-cloud Hamiltonian dynamic analysis for biomechanical systems. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1507-1523.	2.1	0
45	Isogeometric contact analysis: Geometric basis and formulation for frictionless contact. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 726-741.	6.6	110
46	Characterizing Heterogeneous Properties of Cerebral Aneurysms With Unknown Stress-Free Geometry: A Precursor to In Vivo Identification. Journal of Biomechanical Engineering, 2011, 133, 051008.	1.3	18
47	Patient-Specific Wall Stress Analysis in Cerebral Aneurysms Using Inverse Shell Model. Annals of Biomedical Engineering, 2010, 38, 478-489.	2.5	38
48	Fluidâ€"structure interaction methods in biological flows with special emphasis on heart valve dynamics. International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, 435-470.	2.1	49
49	Pointwise Identification of Elastic Properties in Nonlinear Hyperelastic Membranesâ€"Part I: Theoretical and Computational Developments. Journal of Applied Mechanics, Transactions ASME, 2009, 76, .	2.2	24
50	Pointwise Identification of Elastic Properties in Nonlinear Hyperelastic Membranesâ€"Part II: Experimental Validation. Journal of Applied Mechanics, Transactions ASME, 2009, 76, .	2.2	25
51	Discrete gradient method over polygon mesh. International Journal for Numerical Methods in Engineering, 2009, 78, 505-527.	2.8	5
52	Estimation of vascular open configuration using finite element inverse elastostatic method. Engineering With Computers, 2009, 25, 49-59.	6.1	10
53	Circular element: Isogeometric elements of smooth boundary. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 2391-2402.	6.6	31
54	Inverse method of stress analysis for cerebral aneurysms. Biomechanics and Modeling in Mechanobiology, 2008, 7, 477-486.	2.8	82

#	Article	IF	Citations
55	Dynamic Simulation of Bioprosthetic Heart Valves Using a Stress Resultant Shell Model. Annals of Biomedical Engineering, 2008, 36, 262-275.	2.5	101
56	Discrete gradient method in solid mechanics. International Journal for Numerical Methods in Engineering, 2008, 74, 619-641.	2.8	7
57	Inverse formulation for geometrically exact stress resultant shells. International Journal for Numerical Methods in Engineering, 2008, 74, 1278-1302.	2.8	18
58	Nonlinear Anisotropic Stress Analysis of Anatomically Realistic Cerebral Aneurysms. Journal of Biomechanical Engineering, 2007, 129, 88-96.	1.3	40
59	Computational method of inverse elastostatics for anisotropic hyperelastic solids. International Journal for Numerical Methods in Engineering, 2007, 69, 1239-1261.	2.8	57
60	Inverse elastostatic stress analysis in pre-deformed biological structures: Demonstration using abdominal aortic aneurysms. Journal of Biomechanics, 2007, 40, 693-696.	2.1	133
61	Inverse Formulation for Geometrically Exact Stress Resultant Shell. , 2007, , 320-320.		0
62	Analysis of localized failure of single-wall carbon nanotubes. Computational Materials Science, 2006, 35, 432-441.	3.0	33
63	An Experimentally Derived Stress Resultant Shell Model for Heart Valve Dynamic Simulations. Annals of Biomedical Engineering, 2006, 35, 30-44.	2.5	46
64	A covariance condition in finite plasticity and related constitutive results. Zeitschrift Fur Angewandte Mathematik Und Physik, 2006, 57, 313-323.	1.4	4
65	On the computation of Lyapunov exponents for forced vibration of a Lennardâ€"Jones oscillator. Chaos, Solitons and Fractals, 2005, 23, 833-841.	5.1	12
66	Computing Lyapunov exponents of continuous dynamical systems: method of Lyapunov vectors. Chaos, Solitons and Fractals, 2005, 23, 1879-1892.	5.1	10
67	A covariant formulation of anisotropic finite plasticity: theoretical developments. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 5339-5358.	6.6	21