Yi Jiang

List of Publications by Year
in descending order

71 papers	2,578 citations	257450 24 h-index	206112 48 g-index
73 all docs	73 docs citations	73 times ranked	3591 citing authors

#	Article	IF	Citations
1	3D Collagen Alignment Limits Protrusions to Enhance Breast Cancer Cell Persistence. Biophysical Journal, 2014, 107, 2546-2558.	0.5	346
2	A Multiscale Model for Avascular Tumor Growth. Biophysical Journal, 2005, 89, 3884-3894.	0.5	330
3	A Cell-Based Model Exhibiting Branching and Anastomosis during Tumor-Induced Angiogenesis. Biophysical Journal, 2007, 92, 3105-3121.	0.5	281
4	Topography of Extracellular Matrix Mediates Vascular Morphogenesis and Migration Speeds in Angiogenesis. PLoS Computational Biology, 2009, 5, e1000445.	3.2	190
5	Periodic reversal of direction allows Myxobacteria to swarm. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1222-1227.	7.1	139
6	Possible Cooperation of Differential Adhesion and Chemotaxis in Mound Formation of Dictyostelium. Biophysical Journal, 1998, 75, 2615-2625.	0.5	80
7	Hysteresis and avalanches in two-dimensional foam rheology simulations. Physical Review E, 1999, 59, 5819-5832.	2.1	77
8	Cell-ECM Interactions in Tumor Invasion. Advances in Experimental Medicine and Biology, 2016, 936, 73-91.	1.6	64
9	A Three-Dimensional Computational Model of Collagen Network Mechanics. PLoS ONE, 2014, 9, e111896.	2.5	63
10	A three-dimensional model of myxobacterial aggregation by contact-mediated interactions. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11308-11312.	7.1	56
11	Social Interactions in Myxobacterial Swarming. PLoS Computational Biology, 2007, 3, e253.	3.2	54
12	On Cellular Automaton Approaches to Modeling Biological Cells. The IMA Volumes in Mathematics and Its Applications, 2003, , 1-39.	0.5	46
13	Ovarian Tumor Attachment, Invasion, and Vascularization Reflect Unique Microenvironments in the Peritoneum: Insights from Xenograft and Mathematical Models. Frontiers in Oncology, 2013, 3, 97.	2.8	45
14	A three-dimensional model of myxobacterial fruiting-body formation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17255-17259.	7.1	39
15	A whole slide image-based machine learning approach to predict ductal carcinoma in situ (DCIS) recurrence risk. Breast Cancer Research, 2019, 21, 83.	5.0	39
16	Adhesion Failures Determine the Pattern of Choroidal Neovascularization in the Eye: A Computer Simulation Study. PLoS Computational Biology, 2012, 8, e1002440.	3.2	39
17	Spatial Modeling of Drug Delivery Routes for Treatment of Disseminated Ovarian Cancer. Cancer Research, 2016, 76, 1320-1334.	0.9	36
18	Analysis of RPE morphometry in human eyes. Molecular Vision, 2016, 22, 898-916.	1.1	33

#	Article	IF	Citations
19	Increasing Incidence of Liposarcoma: A Population-Based Study of National Surveillance Databases, 2001â€"2016. International Journal of Environmental Research and Public Health, 2020, 17, 2710.	2.6	32
20	Lattice gas cellular automation model for rippling and aggregation in myxobacteria. Physica D: Nonlinear Phenomena, 2004, 191, 343-358.	2.8	31
21	Analysis of the RPE Sheet in the rd10 Retinal Degeneration Model. Advances in Experimental Medicine and Biology, 2012, 723, 641-647.	1.6	30
22	Local alignment vectors reveal cancer cell-induced ECM fiber remodeling dynamics. Scientific Reports, 2017, 7, 39498.	3.3	30
23	Different translation dynamics of Î²- and Î³-actin regulates cell migration. ELife, 2021, 10, .	6.0	28
24	Functional Principal Component Analysis Reveals Discriminating Categories of Retinal Pigment Epithelial Morphology in Mice. , 2013, 54, 7274.		27
25	RPE Cell and Sheet Properties in Normal and Diseased Eyes. Advances in Experimental Medicine and Biology, 2016, 854, 757-763.	1.6	27
26	Association of Uveal Melanoma Metastatic Rate With Stochastic Mutation Rate and Type of Mutation. JAMA Ophthalmology, 2018, 136, 1115.	2.5	27
27	LKB1 kinase-dependent and -independent defects disrupt polarity and adhesion signaling to drive collagen remodeling during invasion. Molecular Biology of the Cell, 2016, 27, 1069-1084.	2.1	26
28	Extended large- Q Potts model simulation of foam drainage. Philosophical Magazine Letters, 1996, 74, 119-128.	1.2	25
29	Molecular Dynamics Study of Small PNA Molecules in Lipid-Water System. Biophysical Journal, 2007, 92, 3081-3091.	0.5	22
30	Methodologies for analysis of patterning in the mouse RPE sheet. Molecular Vision, 2015, 21, 40-60.	1.1	22
31	Designing a typhoid environmental surveillance study: A simulation model for optimum sampling site allocation. Epidemics, 2020, 31, 100391.	3.0	21
32	Self-organization in bacterial swarming: lessons from myxobacteria. Physical Biology, 2011, 8, 055003.	1.8	20
33	Predicting Metastasis Risk in Pancreatic Neuroendocrine Tumors Using Deep Learning Image Analysis. Frontiers in Oncology, 2020, 10, 593211.	2.8	20
34	Role of streams in myxobacteria aggregate formation. Physical Biology, 2004, 1, 173-183.	1.8	18
35	Morphometric Analysis of Retinal Pigment Epithelial Cells From C57BL/6J Mice During Aging. , 2021, 62, 32.		18
36	Bipartite interface of the measles virus phosphoprotein X domain with the large polymerase protein regulates viral polymerase dynamics. PLoS Pathogens, 2019, 15, e1007995.	4.7	15

#	Article	IF	Citations
37	Mathematical Modeling of Mucociliary Clearance: A Mini-Review. Cells, 2019, 8, 736.	4.1	15
38	Tensile force-induced cytoskeletal remodeling: Mechanics before chemistry. PLoS Computational Biology, 2020, 16, e1007693.	3.2	15
39	Hyperdynamics for entropic systems: Time-space compression and pair correlation function approximation. Physical Review E, 2006, 74, 035701.	2.1	13
40	A three-dimensional collagen-fiber network model of the extracellular matrix for the simulation of the mechanical behaviors and micro structures. Computer Methods in Biomechanics and Biomedical Engineering, 2017, 20, 991-1003.	1.6	12
41	Training-based Workforce Development in Advanced Computing for Research and Education (ACoRE). , 2017, , .		12
42	Comparison of histologic findings in age-related macular degeneration with RPE flatmount images. Molecular Vision, 2019, 25, 70-78.	1.1	12
43	Intrusive tumor growth inspired optimization algorithm for data clustering. Neural Computing and Applications, 2016, 27, 349-374.	5.6	11
44	Analysis of Mouse RPE Sheet Morphology Gives Discriminatory Categories. Advances in Experimental Medicine and Biology, 2014, 801, 601-607.	1.6	10
45	Extracellular matrix in cancer progression and therapy. Medical Review, 2022, 2, 125-139.	1.2	10
46	Cellular Potts Model: Applications to Vasculogenesis and Angiogenesis. Emergence, Complexity and Computation, 2018, , 279-310.	0.3	9
47	A Hybrid Parallel Framework for the Cellular Potts Model Simulations. , 2009, , .		6
48	SIMULATION OF GROWTH AND DIVISION OF 3D CELLS BASED ON FINITE ELEMENT METHOD. International Journal of Applied Mechanics, 2014, 06, 1450041.	2.2	6
49	Simulation of 3D tumor cell growth using nonlinear finite element method. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 807-818.	1.6	6
50	BIOLOGICAL LATTICE GAS MODELS. World Scientific Series on Nonlinear Science, Series B, 2004, , 274-291.	0.2	5
51	Cilium height difference between strokes is more effective in driving fluid transport in mucociliary clearance: A numerical study. Mathematical Biosciences and Engineering, 2015, 12, 1107-1126.	1.9	5
52	Bridging coarse-grained models by jump-in-sample simulations. Journal of Chemical Physics, 2008, 128, 174107.	3.0	4
53	CA Models of Myxobacteria Swarming. Lecture Notes in Computer Science, 2006, , 192-203.	1.3	4
54	ON MODELING COMPLEX COLLECTIVE BEHAVIOR IN MYXOBACTERIA. International Journal of Modeling, Simulation, and Scientific Computing, 2006, 09, 353-367.	1.4	3

#	Article	IF	Citations
55	A hybrid mathematical model of tumor-induced angiogenesis with blood perfusion. Tsinghua Science and Technology, 2014, 19, 648-657.	6.1	3
56	Selected papers from the Fourth Annual q-bio Conference on Cellular Information Processing. Physical Biology, 2011, 8, 050301.	1.8	2
57	Special section dedicated to The Sixth q-bio Conference: meeting report and preface. Physical Biology, 2013, 10, 030301.	1.8	2
58	Mask-Ematics: Modeling the Effects of Masks in COVID-19 Transmission in High-Risk Environments. Epidemiologia, 2021, 2, 207-226.	2.2	2
59	A General Long-Time Molecular Dynamics Scheme in Atomistic Systems: Hyperdynamics in Entropy Dominated Systems. Lecture Notes in Computer Science, 2007, , 826-833.	1.3	2
60	Cell-Based Models of Tumor Angiogenesis. , 2012, , 135-150.		2
61	Application of molecular dynamics computer simulations in the design of a minimal selfâ€replicating molecular machine. Complexity, 2008, 13, 10-17.	1.6	1
62	The Seventh q-bio Conference: meeting report and preface. Physical Biology, 2014, 11, 040301.	1.8	1
63	Fast adaptive flat-histogram ensemble to enhance the sampling in large systems. Science China: Physics, Mechanics and Astronomy, 2015, 58, 1.	5.1	1
64	Computational Model-Based Estimation of Mouse Eyeball Structure From Two-Dimensional Flatmount Microscopy Images. Translational Vision Science and Technology, 2021, 10, 25.	2.2	1
65	A Multiscale, Cell-Based Framework for Modeling Cancer Development. Lecture Notes in Computer Science, 2007, , 770-777.	1.3	1
66	The eighth q-bio conference: meeting report and special issue preface. Physical Biology, 2015, 12, 060401.	1.8	0
67	A Multiscale Model of Cell Migration in Three-Dimensional Extracellular Matrix. Modeling and Simulation in Science, Engineering and Technology, 2018, , 61-76.	0.6	0
68	Tensile force-induced cytoskeletal remodeling: Mechanics before chemistry. , 2020, 16, e1007693.		0
69	Tensile force-induced cytoskeletal remodeling: Mechanics before chemistry. , 2020, 16, e1007693.		0
70	Tensile force-induced cytoskeletal remodeling: Mechanics before chemistry. , 2020, 16, e1007693.		0
71	Tensile force-induced cytoskeletal remodeling: Mechanics before chemistry. , 2020, 16, e1007693.		0