Yasuhiro Inoue

List of Publications by Year
in descending order

90 papers	1,090 citations	430874 18 h-index	454955 30 g-index
93 all docs	93 docs citations	93 times ranked	1183 citing authors

#	Article	IF	Citations
1	TAG-1â€“assisted progenitor elongation streamlines nuclear migration to optimize subapical crowding. Nature Neuroscience, 2013, 16, 1556-1566.	14.8	93
2	Vertex dynamics simulations of viscosity-dependent deformation during tissue morphogenesis. Biomechanics and Modeling in Mechanobiology, 2015, 14, 413-425.	2.8	76
3	Strain-triggered mechanical feedback in self-organizing optic-cup morphogenesis. Science Advances, 2018, 4, eaau1354.	10.3	69
4	Development of a Simulation Model for Solid Objects Suspended in a Fluctuating Fluid. Journal of Statistical Physics, 2002, 107, 85-100.	1.2	63
5	Reversible network reconnection model for simulating large deformation in dynamic tissue morphogenesis. Biomechanics and Modeling in Mechanobiology, 2013, 12, 627-644.	2.8	53
6	Mechanical roles of apical constriction, cell elongation, and cell migration during neural tube formation in Xenopus. Biomechanics and Modeling in Mechanobiology, 2016, 15, 1733-1746.	2.8	50
7	Three-dimensional vertex model for simulating multicellular morphogenesis. Biophysics and Physicobiology, 2015, 12, 13-20.	1.0	48
8	Effect of tensile force on the mechanical behavior of actin filaments. Journal of Biomechanics, 2011, 44, 1776-1781.	2.1	46
9	Combining Turing and 3D vertex models reproduces autonomous multicellular morphogenesis with undulation, tubulation, and branching. Scientific Reports, 2018, 8, 2386.	3.3	44
10	Modeling cell proliferation for simulating three-dimensional tissue morphogenesis based on a reversible network reconnection framework. Biomechanics and Modeling in Mechanobiology, 2013, 12, 987-996.	2.8	42
11	PCP-dependent transcellular regulation of actomyosin oscillation facilitates convergent extension of vertebrate tissue. Developmental Biology, 2019, 446, 159-167.	2.0	40
12	Mode I type delamination fracture toughness of YBCO coated conductor with additional Cu layer. Physica C: Superconductivity and Its Applications, 2011, 471, 1071-1074.	1.2	38
13	Complex furrows in a 2D epithelial sheet code the 3D structure of a beetle horn. Scientific Reports, 2017, 7, 13939.	3.3	33
14	Evaluation of extensional and torsional stiffness of single actin filaments by molecular dynamics analysis. Journal of Biomechanics, 2010, 43, 3162-3167.	2.1	30
15	Apical contractility in growing epithelium supports robust maintenance of smooth curvatures against cell-division-induced mechanical disturbance. Journal of Biomechanics, 2013, 46, 1705-1713.	2.1	30
16	Site-specific gene transfer with high efficiency onto a carbon nanotube-loaded electrode. Journal of the Royal Society Interface, 2008, 5, 909-918.	3.4	26
17	Elasticity-based boosting of neuroepithelial nucleokinesis via indirect energy transfer from mother to daughter. PLoS Biology, 2018, 16, e2004426.	5.6	21
18	Precise Temporal Regulation of Molecular Diffusion within Dendritic Spines by Actin Polymers during Structural Plasticity. Cell Reports, 2019, 27, 1503-1515.e8.	6.4	20

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19	Modeling cell apoptosis for simulating three-dimensional multicellular morphogenesis based on a reversible network reconnection framework. Biomechanics and Modeling in Mechanobiology, 2016, 15, 805-816.	2.8	19
20	A mesoscopic simulation model for immiscible multiphase fluids. Journal of Computational Physics, 2004, 201, 191-203.	3.8	18
21	Coupling intercellular molecular signalling with multicellular deformation for simulating three-dimensional tissue morphogenesis. Interface Focus, 2015, 5, 20140095.	3.0	17
22	Advances in Experiments and Modeling in Micro- and Nano-Biomechanics: A Mini Review. Cellular and Molecular Bioengineering, 2011, 4, 327-339.	2.1	16
23	Modeling myosin-dependent rearrangement and force generation in an actomyosin network. Journal of Theoretical Biology, 2011, 281, 65-73.	1.7	16
24	A genetically defined signature of responsiveness to erlotinib in early-stage pancreatic cancer patients: Results from the CONKO-005 trial. EBioMedicine, 2021, 66, 103327.	6.1	16
25	Mechanical role of the spatial patterns of contractile cells in invagination of growing epithelial tissue. Development Growth and Differentiation, 2017, 59, 444-454.	1.5	14
26	Anisotropy of cell division and epithelial sheet bending via apical constriction shape the complex folding pattern of beetle horn primordia. Mechanisms of Development, 2018, 152, 32-37.	1.7	14
27	Quantitative analysis of extensionâ€“torsion coupling of actin filaments. Biochemical and Biophysical Research Communications, 2012, 420, 710-713.	2.1	12
28	Effect of fatigue loading on critical current in stainless steelâ€“laminated DI-BSCCO superconducting composite tape. Physica C: Superconductivity and Its Applications, 2010, 470, 1373-1376.	1.2	11
29	Epithelial tissue folding pattern in confined geometry. Biomechanics and Modeling in Mechanobiology, 2020, 19, 815-822.	2.8	10
30	Simulations of dynamics of actin filaments by remodeling them in shearflows. Computers in Biology and Medicine, 2010, 40, 876-882.	7.0	9
31	Computational analyses decipher the primordial folding coding the 3D structure of the beetle horn. Scientific Reports, 2021, 11, 1017.	3.3	9
32	A mesoscopic simulation study of distributions of droplets in a bifurcating channel. Computers and Fluids, 2006, 35, 971-977.	2.5	8
33	Coarse-grained Brownian ratchet model of membrane protrusion on cellular scale. Biomechanics and Modeling in Mechanobiology, 2011, 10, 495-503.	2.8	8
34	Mode I type interlaminar fracture toughness of Cu plated Gd-YBCO coated conductor. Physics Procedia, 2012, 27, 252-255.	1.2	7
35	Coarse-grained modeling and simulation of actin filament behavior based on Brownian dynamics method. MCB Molecular and Cellular Biomechanics, 2009, 6, 161-73.	0.7	7
36	Wall boundary model for primitive chain network simulations. Journal of Chemical Physics, 2009, 130, 214907.	3.0	6

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37	Change in fatigue property and its relation to critical current for YBCO coated conductor with additional Cu layer. Physica C: Superconductivity and Its Applications, 2009, 469, 1476-1479.	1.2	6
38	An energy landscape approach to understanding variety and robustness in tissue morphogenesis. Biomechanics and Modeling in Mechanobiology, 2020, 19, 471-479.	2.8	6
39	Mobility of Molecular Motors Regulates Contractile Behaviors of Actin Networks. Biophysical Journal, 2019, 116, 2161-2171.	0.5	5
40	Soft-core Interaction Between Entanglement Segments for Primitive Chain Network Simulations. Nihon Reoroji Gakkaishi, 2012, 40, 21-30.	1.0	5
41	Mechanics-based Simulations for Understanding Multicellular Tissue Morphogenesis. Seibutsu Butsuri, 2014, 54, 031-034.	0.1	5
42	Development of a simulation model for solid objects suspended in a fluctuating fluid. Computer Physics Communications, 2001, 142, 114-116.	7.5	4
43	On the density correlation of the spontaneous fluctuation in a real-coded lattice gas. Computer Physics Communications, 2003, 153, 66-70.	7.5	3
44	Statistical analysis on Amida-kuji. Physica A: Statistical Mechanics and Its Applications, 2006, 369, 867-876.	2.6	3
45	A simulation model for amphiphilic molecules in a mesoscale solvent. Computers and Mathematics With Applications, 2008, 55, 1469-1480.	2.7	3
46	Mechanosensitive kinetic preference of actin-binding protein to actin filament. Physical Review E, 2016, 93, 042403.	2.1	3
47	Brownian dynamics simulation study on forceâ€“velocity relation in actin-based membrane protrusion. Computational Particle Mechanics, 2015, 2, 329-337.	3.0	2
48	Approach Behavior of Binding Proteins Toward Actin Filament : Brownian Dynamics Simulation. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 1119-1127.	0.2	1
49	Role of the Actinâ€“Myosin Catch Bond on Actomyosin Aggregate Formation. Cellular and Molecular Bioengineering, 2013, 6, 3-12.	2.1	1
50	Reductions in Anisotropic Errors from Implementation of Phase-Field Wetting Boundary Condition for Off-Grid Objects. International Journal of Computational Methods, 2015, 12, 1550042.	1.3	1
51	Three-Dimensional Vertex Simulation on Smooth Surface Maintenance of Growing Epithelial Tissue Based on Intercellular Mechano-Feedback. Biophysical Journal, 2016, 110, 308a.	0.5	1
52	S15A3 Multiscale Modeling and Simulation of Actin Filament Dynamics(Mutli-scale simulations for) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	0
53	2P-045 Stiffness Evaluation of Actin Filament by Molecular Dynamics Analysis(The 46th Annual Meeting) Tj ETQq1 1 0.784314 rgBT /Ov	0.1	0
54	1P-177 Thermodynamics study on torsion induced inhibition of cofilin binding to actin filament(The) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.1	0

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55	A Thermodynamic Model Describing the Mechanosensitivity of Actin-cofilin Binding. Biophysical Journal, 2009, 96, 123a-124a.	0.5	0
56	2P-009 Effects of tensile force on mechanical properties of actin filament(Protein:Structure,The 47th) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
57	1P221 Modeling and simulation of dynamic reconstructing network of stress fibers with mechanical sensing through focal adhesions(Cell biology,The 48th Annual Meeting of the Biophysical Society of) Tj ETQq1 1 0.784314 rgBT /Overlo	0.1	0
58	3P035 Tensile Force Suppresses Torsional Motions of Individual Actin Subunits(Protein: Structure) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 S151.	0.1	0
59	Thermodynamic Model Study on the Modulation of Binding Affinity between Actin Filament and its Regulatory Proteins in Response to Mechanical Stresses. Biophysical Journal, 2010, 98, 154a.	0.5	0
60	3D1558 Extension-torsion coupling behavior of single actin filament(3D Protein: Structure &) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.1	0
61	Molecular Dynamics Analysis of Coupling Behaviors Between Extension and Torsion of Actin Filaments. Biophysical Journal, 2012, 102, 372a-373a.	0.5	0
62	Modeling and Simulation of Myosin-Dependent Rearrangement and Force Generation in an Actomyosin Network. Biophysical Journal, 2012, 102, 375a.	0.5	0
63	Preface: mathematics, physics, and engineering in biology. Development Growth and Differentiation, 2017, 59, 305-305.	1.5	0
64	Regulation of Chemical Reaction Process due to Mechanical Stimuli. Seibutsu Butsuri, 2017, 57, 026-029.	0.1	0
65	Simulation of Brownian Dynamics on a Curved Surface. Biophysical Journal, 2018, 114, 345a.	0.5	0
66	223 Proposal of a wall boundary condition for Primitive Chain Network simulations. The Proceedings of the Computational Mechanics Conference, 2008, 2008.21, 430-431.	0.0	0
67	744 Computational statistical mechanics of cooperative actin-cofilin binding induced by torsion of actin filament. The Proceedings of the Computational Mechanics Conference, 2008, 2008.21, 854-855.	0.0	0
68	2014 Modeling of actin filament branching for analysis of actin network dynamics. The Proceedings of the Computational Mechanics Conference, 2009, 2009.22, 769-770.	0.0	0
69	1037 Primitive chain network simulations : confinement effect of slit width between solid walls on entanglement of chains in polymer melt. The Proceedings of the Computational Mechanics Conference, 2009, 2009.22, 306-307.	0.0	0
70	J0206-1-2 Simulation of dynamic rearrangements of actomyosin network. The Proceedings of the JSME Annual Meeting, 2010, 2010.6, 77-78.	0.0	0
71	105 Analysis of Resin Flows around Filaments using Diffuse Interface Method combined with Immersed Boundary Method. The Proceedings of the Computational Mechanics Conference, 2010, 2010.23, 35-36.	0.0	0
72	1114 Thermodynamic relation of binding affinity of actin-regulatory protein with mechanical stress of actin filament. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2010, 2009.22, 200.	0.0	0

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73	A201 Equilibration of cofilin-decorated actin filament using molecular dynamics simulation. The Proceedings of the JSME Conference on Frontiers in Bioengineering, 2012, 2012.23, 95-96.	0.0	0
74	BC-JP-6 Molecular dynamics simulations of an actin filament. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _BC-JP-6-1-_BC-JP-6-1.	0.0	0
75	OS1-1-3 Multiscale computational mechanobiology on tissue morphogenesis. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2012, 2012.4, 123-124.	0.0	0
76	1E07 Study on mechanical behaviors of amino residues in actin filament as a mechano-sensor using molecular dynamics simulation. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2013, 2013.25, 155-156.	0.0	0
77	J021013 BMU movement analyzed by trabecular and osteonal remodeling simulation. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _J021013-1-_J021013-3.	0.0	0
78	J021011 Energy landscape between adjacent subunits in cofilin-decorated actin filament. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _J021011-1-_J021011-3.	0.0	0
79	1E11 Energy between cofilin and actin in cofilin-decorated actin filament under tensile force. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2014, 2014.26, 123-124.	0.0	0
80	1E12 Influence of mechanical stimulus on mouse ES cell differentiation : Investigation based on mRNA expression levels. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2014, 2014.26, 125-126.	0.0	0
81	S0210101 Contribution of Cell Proliferation and Apical Contraction on Epithelial Tissue Deformation Examined by Using a Multi-cellular Dynamics Simulation. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _S0210101--_S0210101-.	0.0	0
82	J0240102 Investigation of conditions of SMD simulation for alpha-helical proteins. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _J0240102--_J0240102-.	0.0	0
83	21am2-E3 Role of spatial patterns of apical constricted cells in epithelial tissue deformations. The Proceedings of the Symposium on Micro-Nano Science and Technology, 2014, 2014.6, _21am2-E3--_21am2-E3-.	0.0	0
84	1C41 Influence of spatially patterned mechanical cell activities on the tissue invagination. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2015, 2015.27, 125-126.	0.0	0
85	M314 Mathematical modeling of cell-cell interaction maintaining smooth surface of growing epithelial tissue. The Proceedings of Conference of Kansai Branch, 2015, 2015.90, 308.	0.0	0
86	J0210204 Influence of the balance between RANKL and OPG expression rates on the functional adaptation capacity of trabeculae. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _J0210204--_J0210204-.	0.0	0
87	J0210105 Mathematical modeling of apical constriction adjustment for maintaining smooth surface of growing epithelial tissue. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _J0210105--_J0210105-.	0.0	0
88	2H14 Effects of remodeling signals on bone functional adaptation. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2016, 2016.28, _2H14-1_-_2H14-4_.	0.0	0
89	2D21 Simulation of morphological change in epithelial tissue considering feedback between constriction force and shape at cell level. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2016, 2016.28, _2D21-1_-_2D21-5_.	0.0	0
90	Impact of environmental asymmetry on epithelial morphogenesis. Scientific Reports, 2022, 12, .	3.3	0