

Shiladitya Banerjee

List of Publications by Year in descending order

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Version: 2024-02-01

53
papers

2,611
citations

236925

25
h-index

233421

45
g-index

72
all docs

72
docs citations

72
times ranked

2657
citing authors

#	ARTICLE	IF	CITATIONS
1	Cadherin-based intercellular adhesions organize epithelial cellâ€‘matrix traction forces. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 842-847.	7.1	215
2	Geometry Regulates Traction Stresses in Adherent Cells. Biophysical Journal, 2014, 107, 825-833.	0.5	211
3	Scaling of Traction Forces with the Size of Cohesive Cell Colonies. Physical Review Letters, 2012, 108, 198101.	7.8	158
4	Cellular Contraction and Polarization Drive Collective Cellular Motion. Biophysical Journal, 2016, 110, 2729-2738.	0.5	135
5	Tissue fluidity promotes epithelial wound healing. Nature Physics, 2019, 15, 1195-1203.	16.7	131
6	Disordered actomyosin networks are sufficient to produce cooperative and telescopic contractility. Nature Communications, 2016, 7, 12615.	12.8	108
7	Liquid behavior of cross-linked actin bundles. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2131-2136.	7.1	106
8	Propagating Stress Waves During Epithelial Expansion. Physical Review Letters, 2015, 114, 228101.	7.8	97
9	The Actin Cytoskeleton as an Active Adaptive Material. Annual Review of Condensed Matter Physics, 2020, 11, 421-439.	14.5	86
10	RhoA Mediates Epithelial Cell Shape Changes via Mechanosensitive Endocytosis. Developmental Cell, 2020, 52, 152-166.e5.	7.0	82
11	Structural basis for oligomerization and glycosaminoglycan binding of CCL5 and CCL3. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5000-5005.	7.1	72
12	A Versatile Framework for Simulating the Dynamic Mechanical Structure of Cytoskeletal Networks. Biophysical Journal, 2017, 113, 448-460.	0.5	66
13	Filament rigidity and connectivity tune the deformation modes of active biopolymer networks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10037-E10045.	7.1	63
14	Surface-to-volume scaling and aspect ratio preservation in rod-shaped bacteria. ELife, 2019, 8, .	6.0	63
15	Local cellular neighborhood controls proliferation in cell competition. Molecular Biology of the Cell, 2017, 28, 3215-3228.	2.1	62
16	Contractile Stresses in Cohesive Cell Layers on Finite-Thickness Substrates. Physical Review Letters, 2012, 109, 108101.	7.8	60
17	Mechanosensitive Junction Remodeling Promotes Robust Epithelial Morphogenesis. Biophysical Journal, 2019, 117, 1739-1750.	0.5	59
18	Cooperation of dual modes of cell motility promotes epithelial stress relaxation to accelerate wound healing. PLoS Computational Biology, 2018, 14, e1006502.	3.2	53

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19	Wound healing coordinates actin architectures to regulate mechanical work. <i>Nature Physics</i> , 2019, 15, 696-705.	16.7	52
20	Entropy production rate is maximized in non-contractile actomyosin. <i>Nature Communications</i> , 2018, 9, 4948.	12.8	48
21	Instabilities and oscillations in isotropic active gels. <i>Soft Matter</i> , 2011, 7, 463-473.	2.7	41
22	Substrate rigidity deforms and polarizes active gels. <i>Europhysics Letters</i> , 2011, 96, 28003.	2.0	41
23	Nutrient-Dependent Trade-Offs between Ribosomes and Division Protein Synthesis Control Bacterial Cell Size and Growth. <i>Cell Reports</i> , 2020, 32, 108183.	6.4	40
24	Biphasic growth dynamics control cell division in <i>Caulobacter crescentus</i> . <i>Nature Microbiology</i> , 2017, 2, 17116.	13.3	36
25	Nonequilibrium phase diagrams for actomyosin networks. <i>Soft Matter</i> , 2018, 14, 7740-7747.	2.7	35
26	Force localization modes in dynamic epithelial colonies. <i>Molecular Biology of the Cell</i> , 2018, 29, 2835-2847.	2.1	33
27	Controlling cell-matrix traction forces by extracellular geometry. <i>New Journal of Physics</i> , 2013, 15, 035015.	2.9	32
28	Active Viscoelastic Matter: From Bacterial Drag Reduction to Turbulent Solids. <i>Physical Review Letters</i> , 2015, 114, 098302.	7.8	31
29	Cell-scale biophysical determinants of cell competition in epithelia. <i>ELife</i> , 2021, 10, .	6.0	28
30	Mechanical feedback promotes bacterial adaptation to antibiotics. <i>Nature Physics</i> , 2021, 17, 403-409.	16.7	25
31	Shape dynamics of growing cell walls. <i>Soft Matter</i> , 2016, 12, 3442-3450.	2.7	24
32	Continuum Models of Collective Cell Migration. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1146, 45-66.	1.6	24
33	Antibiotic Resistance via Bacterial Cell Shape-Shifting. <i>MBio</i> , 2022, 13, .	4.1	23
34	Heterogeneous Drying Stresses in Stratum Corneum. <i>Biophysical Journal</i> , 2012, 102, 2424-2432.	0.5	22
35	Cell-type-specific mechanical response and myosin dynamics during retinal lens development in <i>Drosophila</i> . <i>Molecular Biology of the Cell</i> , 2020, 31, 1355-1369.	2.1	19
36	Generic phases of cross-linked active gels: Relaxation, oscillation and contractility. <i>Europhysics Letters</i> , 2011, 96, 58004.	2.0	18

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37	Intergenerational continuity of cell shape dynamics in <i>Caulobacter crescentus</i> . <i>Scientific Reports</i> , 2015, 5, 9155.	3.3	17
38	Hindbrain neuropore tissue geometry determines asymmetric cell-mediated closure dynamics in mouse embryos. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	17
39	Force-dependent intercellular adhesion strengthening underlies asymmetric adherens junction contraction. <i>Current Biology</i> , 2022, 32, 1986-2000.e5.	3.9	17
40	Regulated Capture of ν Gene Topologically Associating Domains by Transcription Factories. <i>Cell Reports</i> , 2018, 24, 2443-2456.	6.4	16
41	Cellular resource allocation strategies for cell size and shape control in bacteria. <i>FEBS Journal</i> , 2022, 289, 7891-7906.	4.7	14
42	Polymorphism and bistability in adherent cells. <i>Soft Matter</i> , 2013, 9, 5251.	2.7	13
43	Optimal shapes and stresses of adherent cells on patterned substrates. <i>Soft Matter</i> , 2014, 10, 2424.	2.7	12
44	Filament Nucleation Tunes Mechanical Memory in Active Polymer Networks. <i>Advanced Functional Materials</i> , 2019, 29, 1905243.	14.9	12
45	Bacterial cell shape control by nutrient-dependent synthesis of cell division inhibitors. <i>Biophysical Journal</i> , 2021, 120, 2079-2084.	0.5	12
46	Pulsatile contractions and pattern formation in excitable actomyosin cortex. <i>PLoS Computational Biology</i> , 2022, 18, e1009981.	3.2	11
47	Single-cell approaches to cell competition: High-throughput imaging, machine learning and simulations. <i>Seminars in Cancer Biology</i> , 2020, 63, 60-68.	9.6	10
48	Adaptive viscoelasticity of epithelial cell junctions: from models to methods. <i>Current Opinion in Genetics and Development</i> , 2020, 63, 86-94.	3.3	8
49	Motor-driven dynamics of cytoskeletal filaments in motility assays. <i>Physical Review E</i> , 2011, 84, 011914.	2.1	6
50	Transcription factories in $Ig\lambda$ allelic choice and diversity. <i>Advances in Immunology</i> , 2019, 141, 33-49.	2.2	5
51	Size-Regulated Symmetry Breaking in Reaction-Diffusion Models of Developmental Transitions. <i>Cells</i> , 2020, 9, 1646.	4.1	4
52	Emergence and maintenance of variable-length actin filaments in a limiting pool of building blocks. <i>Biophysical Journal</i> , 2022, 121, 2436-2448.	0.5	4
53	Size regulation of multiple organelles competing for a limiting subunit pool. <i>PLoS Computational Biology</i> , 2022, 18, e1010253.	3.2	4