

# Dapeng Bi

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9503647/publications.pdf>

Version: 2024-02-01

30  
papers

3,348  
citations

331259

21  
h-index

454577

30  
g-index

35  
all docs

35  
docs citations

35  
times ranked

2344  
citing authors

#	ARTICLE	IF	CITATIONS
1	A density-independent rigidity transition in biological tissues. <i>Nature Physics</i> , 2015, 11, 1074-1079.	6.5	565
2	Jamming by shear. <i>Nature</i> , 2011, 480, 355-358.	13.7	530
3	Unjamming and cell shape in the asthmatic airway epithelium. <i>Nature Materials</i> , 2015, 14, 1040-1048.	13.3	484
4	Motility-Driven Glass and Jamming Transitions in Biological Tissues. <i>Physical Review X</i> , 2016, 6, .	2.8	417
5	Geometric constraints during epithelial jamming. <i>Nature Physics</i> , 2018, 14, 613-620.	6.5	196
6	Energy barriers and cell migration in densely packed tissues. <i>Soft Matter</i> , 2014, 10, 1885.	1.2	163
7	Flocking transitions in confluent tissues. <i>Soft Matter</i> , 2018, 14, 3471-3477.	1.2	114
8	In primary airway epithelial cells, the unjamming transition is distinct from the epithelial-to-mesenchymal transition. <i>Nature Communications</i> , 2020, 11, 5053.	5.8	107
9	The Statistical Physics of Athermal Materials. <i>Annual Review of Condensed Matter Physics</i> , 2015, 6, 63-83.	5.2	102
10	Correlating cell shape and cellular stress in motile confluent tissues. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12663-12668.	3.3	92
11	Cooperation of dual modes of cell motility promotes epithelial stress relaxation to accelerate wound healing. <i>PLoS Computational Biology</i> , 2018, 14, e1006502.	1.5	53
12	Wound healing coordinates actin architectures to regulate mechanical work. <i>Nature Physics</i> , 2019, 15, 696-705.	6.5	52
13	Why Do Granular Materials Stiffen with Shear Rate? Test of Novel Stress-Based Statistics. <i>Physical Review Letters</i> , 2008, 101, 268301.	2.9	44
14	Origin of Rigidity in Dry Granular Solids. <i>Physical Review Letters</i> , 2013, 111, 068301.	2.9	43
15	Unjamming and collective migration in MCF10A breast cancer cell lines. <i>Biochemical and Biophysical Research Communications</i> , 2020, 521, 706-715.	1.0	42
16	Multicellular Rosettes Drive Fluid-solid Transition in Epithelial Tissues. <i>Physical Review X</i> , 2019, 9, .	2.8	41
17	Mechanical Heterogeneity in Tissues Promotes Rigidity and Controls Cellular Invasion. <i>Physical Review Letters</i> , 2019, 123, 058101.	2.9	34
18	Energetics of mesoscale cell turbulence in two-dimensional monolayers. <i>Communications Physics</i> , 2021, 4, .	2.0	34

#	ARTICLE	IF	CITATIONS
19	Statistical properties of granular materials near jamming. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P06004.	0.9	30
20	Shear-induced rigidity of frictional particles: Analysis of emergent order in stress space. <i>Physical Review E</i> , 2016, 93, 042901.	0.8	28
21	Hydrodynamics of shape-driven rigidity transitions in motile tissues. <i>Soft Matter</i> , 2018, 14, 5628-5642.	1.2	25
22	Irradiation Induces Epithelial Cell Unjamming. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 21.	1.8	22
23	Biological tissue-inspired tunable photonic fluid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6650-6655.	3.3	21
24	Shear-Driven Solidification and Nonlinear Elasticity in Epithelial Tissues. <i>Physical Review Letters</i> , 2022, 128, 178001.	2.9	21
25	Dynamic instability and migration modes of collective cells in channels. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190258.	1.5	18
26	Rheology of granular materials: dynamics in a stress landscape. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 5073-5090.	1.6	13
27	Fluctuations in shear-jammed states: A statistical ensemble approach. <i>Europhysics Letters</i> , 2013, 102, 34002.	0.7	12
28	Configurational fingerprints of multicellular living systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	10
29	Controlled Neighbor Exchanges Drive Glassy Behavior, Intermittency, and Cell Streaming in Epithelial Tissues. <i>Physical Review X</i> , 2021, 11, .	2.8	10
30	Logarithmic Strengthening of Granular Materials with Shear Rate. , 2009, , .		0