

# Karen Alim

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3605926/publications.pdf>

Version: 2024-02-01

31  
papers

1,651  
citations

516215

16  
h-index

454577

30  
g-index

39  
all docs

39  
docs citations

39  
times ranked

2397  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical Stress Acts via Katanin to Amplify Differences in Growth Rate between Adjacent Cells in Arabidopsis. <i>Cell</i> , 2012, 149, 439-451.	13.5	418
2	Matrix elasticity of void-forming hydrogels controls transplanted-stem-cell-mediated bone formation. <i>Nature Materials</i> , 2015, 14, 1269-1277.	13.3	390
3	Random network peristalsis in <i>Physarum polycephalum</i> organizes fluid flows across an individual. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13306-13311.	3.3	131
4	Mechanism of signal propagation in <i>Physarum polycephalum</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 5136-5141.	3.3	73
5	Shapes of Semiflexible Polymer Rings. <i>Physical Review Letters</i> , 2007, 99, 198102.	2.9	71
6	Local Pore Size Correlations Determine Flow Distributions in Porous Media. <i>Physical Review Letters</i> , 2017, 119, 144501.	2.9	65
7	Regulatory Role of Cell Division Rules on Tissue Growth Heterogeneity. <i>Frontiers in Plant Science</i> , 2012, 3, 174.	1.7	51
8	Encoding memory in tube diameter hierarchy of living flow network. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	45
9	Buckling of stiff polymer rings in weak spherical confinement. <i>Physical Review E</i> , 2010, 81, 061802.	0.8	38
10	Pruning to Increase Taylor Dispersion in <i>Physarum polycephalum</i> Networks. <i>Physical Review Letters</i> , 2016, 117, 178103.	2.9	37
11	Gut microbiota-motility interregulation: insights from <i>in vivo</i> , <i>ex vivo</i> and <i>in silico</i> studies. <i>Gut Microbes</i> , 2022, 14, 1997296.	4.3	34
12	Excluded Volume Effects on Semiflexible Ring Polymers. <i>Nano Letters</i> , 2010, 10, 1445-1449.	4.5	28
13	Active control of dispersion within a channel with flow and pulsating walls. <i>Physical Review Fluids</i> , 2019, 4, .	1.0	28
14	Fluid flows shaping organism morphology. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170112.	1.8	26
15	Oscillatory fluid flow drives scaling of contraction wave with system size. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 10612-10617.	3.3	26
16	The Emergent Yo-yo Movement of Nuclei Driven by Cytoskeletal Remodeling in Pseudo-synchronous Mitotic Cycles. <i>Current Biology</i> , 2020, 30, 2564-2573.e5.	1.8	22
17	Quantitative Analysis of the Nanopore Translocation Dynamics of Simple Structured Polynucleotides. <i>Biophysical Journal</i> , 2012, 102, 85-95.	0.2	18
18	Spatial mapping reveals multi-step pattern of wound healing in <i>Physarum polycephalum</i> . <i>Journal Physics D: Applied Physics</i> , 2017, 50, 434005.	1.3	18

#	ARTICLE	IF	CITATIONS
19	Mechanical Model of Nuclei Ordering in <i>Drosophila</i> Embryos Reveals Dilution of Stochastic Forces. <i>Biophysical Journal</i> , 2018, 114, 1730-1740.	0.2	18
20	Confinement induces conformational transition of semiflexible polymer rings to figure eight form. <i>Soft Matter</i> , 2010, 6, 3467.	1.2	17
21	Flow rate of transport network controls uniform metabolite supply to tissue. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20180075.	1.5	17
22	Leaf growth is conformal. <i>Physical Biology</i> , 2016, 13, 05LT01.	0.8	13
23	Robust Increase in Supply by Vessel Dilation in Globally Coupled Microvasculature. <i>Physical Review Letters</i> , 2019, 123, 228103.	2.9	13
24	Living System Adapts Harmonics of Peristaltic Wave for Cost-Efficient Optimization of Pumping Performance. <i>Physical Review Letters</i> , 2020, 124, 098102.	2.9	11
25	Emergence of behaviour in a self-organized living matter network. <i>ELife</i> , 2022, 11, .	2.8	9
26	Physarum. <i>Current Biology</i> , 2013, 23, R1082-R1083.	1.8	8
27	Spatial transcriptomic and single-nucleus analysis reveals heterogeneity in a gigantic single-celled syncytium. <i>ELife</i> , 2022, 11, .	2.8	8
28	Tissue-wide integration of mechanical cues promotes effective auxin patterning. <i>European Physical Journal Plus</i> , 2021, 136, 1.	1.2	5
29	Feedback from Tissue Mechanics Self-Organizes Efficient Outgrowth of Plant Organ. <i>Biophysical Journal</i> , 2019, 117, 1995-2004.	0.2	4
30	Order parameter allows classification of planar graphs based on balanced fixed points in the Kuramoto model. <i>Physical Review E</i> , 2019, 99, 052308.	0.8	1
31	Being Squeezed into the Right Place within the Egg Shell. <i>Biophysical Journal</i> , 2013, 105, 1735-1736.	0.2	0