Leah Edelstein-Keshet

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3465024/publications.pdf

Version: 2024-02-01

56
papers

4,599
citations

172457
29
h-index

149698
56
g-index

63
all docs

63
docs citations

63
times ranked

3418
citing authors

#	ARTICLE	IF	CITATIONS
1	A multiscale computational model of YAP signaling in epithelial fingering behavior. Biophysical Journal, 2022, 121, 1940-1948.	0.5	5
2	Spots, stripes, and spiral waves in models for static and motile cells. Journal of Mathematical Biology, 2021, 82, 28.	1.9	15
3	Symmetry and fluctuation of cell movements in neural crest-derived facial mesenchyme. Development (Cambridge), 2021, 148, .	2.5	7
4	Cross talk-dependent cortical patterning of Rho GTPases during cell repair. Molecular Biology of the Cell, 2021, 32, mbc.E20-07-0481.	2.1	11
5	Cellular Tango: how extracellular matrix adhesion choreographs Rac-Rho signaling and cell movement. Physical Biology, 2021, 18, 066005.	1.8	7
6	Cell Size, Mechanical Tension, and GTPase Signaling in the Single Cell. Bulletin of Mathematical Biology, 2020, 82, 28.	1.9	13
7	Bridging from single to collective cell migration: A review of models and links to experiments. PLoS Computational Biology, 2020, 16, e1008411.	3.2	49
8	Self-organized multicellular structures from simple cell signaling: a computational model. Physical Biology, 2020, 17, 066003.	1.8	12
9	Correlated random walks inside a cell: actin branching and microtubule dynamics. Journal of Mathematical Biology, 2019, 79, 1953-1972.	1.9	5
10	From energy to cellular forces in the Cellular Potts Model: An algorithmic approach. PLoS Computational Biology, 2019, 15, e1007459.	3.2	45
11	Coupling mechanical tension and GTPase signaling to generate cell and tissue dynamics. Physical Biology, 2018, 15, 046004.	1.8	42
12	A Rho-GTPase based model explains spontaneous collective migration of neural crest cell clusters. Developmental Biology, 2018, 444, S262-S273.	2.0	23
13	How the lizard gets its speckled scales. Nature, 2017, 544, 170-171.	27.8	2
14	Mechanisms of cell polarization. Current Opinion in Systems Biology, 2017, 3, 43-53.	2.6	102
15	Application of Quasi-Steady-State Methods to Nonlinear Models of Intracellular Transport by Molecular Motors. Bulletin of Mathematical Biology, 2017, 79, 1923-1978.	1.9	9
16	Mechanochemical feedback underlies coexistence of qualitatively distinct cell polarity patterns within diverse cell populations. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5750-E5759.	7.1	51
17	Polarization and migration in the zebrafish posterior lateral line system. PLoS Computational Biology, 2017, 13, e1005451.	3.2	14
18	A mathematical model coupling polarity signaling to cell adhesion explains diverse cell migration patterns. PLoS Computational Biology, 2017, 13, e1005524.	3.2	48

#	Article	IF	Citations
19	Flipping the Rac-Rho Switch in Cell Motility. Cell Systems, 2016, 2, 10-12.	6.2	8
20	A mathematical model of GTPase pattern formation during single-cell wound repair. Interface Focus, 2016, 6, 20160032.	3.0	16
21	Analysis of a minimal Rho-GTPase circuit regulating cell shape. Physical Biology, 2016, 13, 046001.	1.8	58
22	Application of quasi-steady state methods to molecular motor transport on microtubules in fungal hyphae. Journal of Theoretical Biology, 2015, 379, 47-58.	1.7	5
23	Local Perturbation Analysis: A Computational Tool for Biophysical Reaction-Diffusion Models. Biophysical Journal, 2015, 108, 230-236.	0.5	38
24	Modeling the roles of protein kinase CÎ² and Î· in single-cell wound repair. Molecular Biology of the Cell, 2015, 26, 4100-4108.	2.1	17
25	Mathematical model with spatially uniform regulation explains long-range bidirectional transport of early endosomes in fungal hyphae. Molecular Biology of the Cell, 2014, 25, 2408-2415.	2.1	9
26	Mathematical model of macrophage-facilitated breast cancer cells invasion. Journal of Theoretical Biology, 2014, 357, 184-199.	1.7	76
27	A model for intracellular actin waves explored by nonlinear local perturbation analysis. Journal of Theoretical Biology, 2013, 334, 149-161.	1.7	26
28	From simple to detailed models for cell polarization. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130003.	4.0	66
29	How Cells Integrate Complex Stimuli: The Effect of Feedback from Phosphoinositides and Cell Shape on Cell Polarization and Motility. PLoS Computational Biology, 2012, 8, e1002402.	3.2	103
30	Modelling Cell Polarization Driven by Synthetic Spatially Graded Rac Activation. PLoS Computational Biology, 2012, 8, e1002366.	3.2	46
31	A Comparison of Computational Models for Eukaryotic Cell Shape and Motility. PLoS Computational Biology, 2012, 8, e1002793.	3.2	96
32	Synthetic spatially graded Rac activation drives cell polarization and movement. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3668-77.	7.1	60
33	Deterministic Versus Stochastic Cell Polarisation Through Wave-Pinning. Bulletin of Mathematical Biology, 2012, 74, 2570-99.	1.9	49
34	Asymptotic and Bifurcation Analysis of Wave-Pinning in a Reaction-Diffusion Model for Cell Polarization. SIAM Journal on Applied Mathematics, 2011, 71, 1401-1427.	1.8	108
35	A Computational Model of Cell Polarization and Motility Coupling Mechanics and Biochemistry. Multiscale Modeling and Simulation, 2011, 9, 1420-1443.	1.6	59
36	A Comparison of Mathematical Models for Polarization of Single Eukaryotic Cells in Response to Guided Cues. PLoS Computational Biology, 2011, 7, e1001121.	3.2	221

#	ARTICLE	IF	CITATIONS
37	The role of low avidity T cells in the protection against type 1 diabetes: A modeling investigation. Journal of Theoretical Biology, 2009, 256, 126-141.	1.7	27
38	Wave-Pinning and Cell Polarity from a Bistable Reaction-Diffusion System. Biophysical Journal, 2008, 94, 3684-3697.	0.5	358
39	Mathematical Model for Spatial Segregation of the Rho-Family GTPases Based on Inhibitory Crosstalk. Bulletin of Mathematical Biology, 2007, 69, 1943-1978.	1.9	130
40	Polarization and Movement of Keratocytes: A Multiscale Modelling Approach. Bulletin of Mathematical Biology, 2006, 68, 1169-1211.	1.9	208
41	Quantifying macrophage defects in type 1 diabetes. Journal of Theoretical Biology, 2005, 233, 533-551.	1.7	50
42	Chemotactic Signaling, Microglia, and Alzheimer's Disease Senile Plaques: Is There a Connection?. Bulletin of Mathematical Biology, 2003, 65, 693-730.	1.9	176
43	Regulation of Actin Dynamics in Rapidly Moving Cells:A Quantitative Analysis. Biophysical Journal, 2002, 83, 1237-1258.	0.5	271
44	Exploring the Formation of Alzheimer's Disease Senile Plaques in Silico. Journal of Theoretical Biology, 2002, 216, 301-326.	1.7	61
45	A model for actin-filament length distribution in a lamellipod. Journal of Mathematical Biology, 2001, 43, 325-355.	1.9	35
46	Models for spatial polymerization dynamics of rod-like polymers. Journal of Mathematical Biology, 2000, 40, 64-96.	1.9	23
47	A non-local model for a swarm. Journal of Mathematical Biology, 1999, 38, 534-570.	1.9	444
48	Complexity, Pattern, and Evolutionary Trade-Offs in Animal Aggregation. Science, 1999, 284, 99-101.	12.6	1,056
49	Models for the Length Distributions of Actin Filaments: I. Simple Polymerization and Fragmentation. Bulletin of Mathematical Biology, 1998, 60, 449-475.	1.9	59
50	Models for the Length Distributions of Actin Filaments: II. Polymerization and Fragmentation by Gelsolin Acting Together. Bulletin of Mathematical Biology, 1998, 60, 477-503.	1.9	27
51	Testing a Model for the Dynamics of Actin Structures with Biological Parameter Values. Bulletin of Mathematical Biology, 1998, 60, 275-305.	1.9	16
52	A mathematical approach to cytoskeletal assembly. European Biophysics Journal, 1998, 27, 521-531.	2.2	16
53	Do travelling band solutions describe cohesive swarms? An investigation for migratory locusts. Journal of Mathematical Biology, 1998, 36, 515-549.	1.9	87
54	Selecting a common direction. Journal of Mathematical Biology, 1996, 34, 811-842.	1.9	18

#	ARTICLE	IF	CITATIONS
55	Selecting a common direction. Journal of Mathematical Biology, 1996, 34, 811-842.	1.9	5
56	Trail following in ants: individual properties determine population behaviour. Behavioral Ecology and Sociobiology, 1995, 36, 119-133.	1.4	9