William R Holmes

List of Publications by Year
in descending order

48	1,260	394421 19	434195 31
papers	citations	h-index	g-index

58	58	58	1201
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Comparison of Computational Models for Eukaryotic Cell Shape and Motility. PLoS Computational Biology, 2012, 8, e1002793.	3.2	96
2	The Quality of Response Time Data Inference: A Blinded, Collaborative Assessment of the Validity of Cognitive Models. Psychonomic Bulletin and Review, 2019, 26, 1051-1069.	2.8	95
3	From simple to detailed models for cell polarization. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130003.	4.0	66
4	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
5	Analysis of a minimal Rho-GTPase circuit regulating cell shape. Physical Biology, 2016, 13, 046001.	1.8	58
6	A new framework for modeling decisions about changing information: The Piecewise Linear Ballistic Accumulator model. Cognitive Psychology, 2016, 85, 1-29.	2.2	53
7	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
8	A mathematical model coupling polarity signaling to cell adhesion explains diverse cell migration patterns. PLoS Computational Biology, 2017, 13, e1005524.	3.2	48
9	Modelling Cell Polarization Driven by Synthetic Spatially Graded Rac Activation. PLoS Computational Biology, 2012, 8, e1002366.	3.2	46
10	A practical guide to the Probability Density Approximation (PDA) with improved implementation and error characterization. Journal of Mathematical Psychology, 2015, 68-69, 13-24.	1.8	45
11	Local Perturbation Analysis: A Computational Tool for Biophysical Reaction-Diffusion Models. Biophysical Journal, 2015, 108, 230-236.	0.5	38
12	Gene Expression Noise Enhances Robust Organization of the Early Mammalian Blastocyst. PLoS Computational Biology, 2017, 13, e1005320.	3.2	37
13	Computational modeling of singleâ€cell mechanics and cytoskeletal mechanobiology. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2018, 10, e1407.	6.6	36
14	Response-time data provide critical constraints on dynamic models of multi-alternative, multi-attribute choice. Psychonomic Bulletin and Review, 2019, 26, 901-933.	2.8	33
15	An Efficient, Nonlinear Stability Analysis for Detecting Pattern Formation in Reaction Diffusion Systems. Bulletin of Mathematical Biology, 2014, 76, 157-183.	1.9	31
16	Nonrandom Î³-TuNA-dependent spatial pattern of microtubule nucleation at the Golgi. Molecular Biology of the Cell, 2017, 28, 3181-3192.	2.1	30
17	The Interplay between Wnt Mediated Expansion and Negative Regulation of Growth Promotes Robust Intestinal Crypt Structure and Homeostasis. PLoS Computational Biology, 2015, 11, e1004285.	3.2	30
18	A model for intracellular actin waves explored by nonlinear local perturbation analysis. Journal of Theoretical Biology, 2013, 334, 149-161.	1.7	26

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19	Computational modelling of epidermal stratification highlights the importance of asymmetric cell division for predictable and robust layer formation. Journal of the Royal Society Interface, 2014, 11, 20140631.	3.4	25
20	A parameter recovery assessment of time-variant models of decision-making. Behavior Research Methods, 2020, 52, 193-206.	4.0	24
21	Bayesian analysis of the piecewise diffusion decision model. Behavior Research Methods, 2018, 50, 730-743.	4.0	23
22	Urgency, leakage, and the relative nature of information processing in decision-making.. Psychological Review, 2021, 128, 160-186.	3.8	23
23	Optimal models of decision-making in dynamic environments. Current Opinion in Neurobiology, 2019, 58, 54-60.	4.2	22
24	Simple Rho GTPase Dynamics Generate a Complex Regulatory Landscape Associated with Cell Shape. Biophysical Journal, 2020, 118, 1438-1454.	0.5	21
25	Cell Sorting and Noise-Induced Cell Plasticity Coordinate to Sharpen Boundaries between Gene Expression Domains. PLoS Computational Biology, 2017, 13, e1005307.	3.2	19
26	The impact of speed and bias on the cognitive processes of experts and novices in medical image decision-making. Cognitive Research: Principles and Implications, 2018, 3, .	2.0	18
27	Microtubules Regulate Localization and Availability of Insulin Granules in Pancreatic Beta Cells. Biophysical Journal, 2020, 118, 193-206.	0.5	18
28	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
29	A mathematical model of GTPase pattern formation during single-cell wound repair. Interface Focus, 2016, 6, 20160032.	3.0	16
30	Membrane Tension Can Enhance Adaptation to Maintain Polarity of Migrating Cells. Biophysical Journal, 2020, 119, 1617-1629.	0.5	15
31	Sexual Trauma Screening for Men and Women: Examining the Construct Validity of a Two-Item Screen. Violence and Victims, 2019, 34, 175-193.	0.7	13
32	Multiâ€species interactions in competitive hierarchies: New methods and empirical test. Journal of Vegetation Science, 2007, 18, 685-692.	2.2	12
33	A multiscale model via single-cell transcriptomics reveals robust patterning mechanisms during early mammalian embryo development. PLoS Computational Biology, 2021, 17, e1008571.	3.2	11
34	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
35	Microtubules regulate pancreatic Î²-cell heterogeneity via spatiotemporal control of insulin secretion hot spots. ELife, 2021, 10, .	6.0	11
36	A Joint Deep Neural Network and Evidence Accumulation Modeling Approach to Human Decision-Making with Naturalistic Images. Computational Brain & Behavior, 2020, 3, 1-12.	1.7	10

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37	Sexual Trauma Screening for Men and Women: Examining the Construct Validity of a Two-Item Screen. Violence and Victims, 2019, 34, 175-193.	0.7	10
38	Disentangling prevalence induced biases in medical image decision-making. Cognition, 2021, 212, 104713.	2.2	9
39	Cortical tension initiates the positive feedback loop between cadherin and F-actin. Biophysical Journal, 2022, 121, 596-606.	0.5	9
40	Is cell migration or proliferation dominant in the formation of linear arrays of oligodendrocytes?. Journal of Theoretical Biology, 2016, 406, 17-30.	1.7	8
41	Parallel probability density approximation. Behavior Research Methods, 2019, 51, 2777-2799.	4.0	8
42	Subdiffusive Dynamics Lead to Depleted Particle Densities near Cellular Borders. Biophysical Journal, 2019, 116, 1538-1546.	0.5	6
43	Chemical Langevin equation: A path-integral view of Gillespie's derivation. Physical Review E, 2020, 101, 032417.	2.1	5
44	Interactions and Tradeoffs Between Cell Recruitment, Proliferation, and Differentiation Affect CNS Regeneration. Biophysical Journal, 2014, 106, 1528-1536.	0.5	4
45	Biophysical Models of PAR Cluster Transport by Cortical Flow in C. elegans Early Embryogenesis. Bulletin of Mathematical Biology, 2022, 84, 40.	1.9	3
46	HYDRO-ELASTIC WAVES IN A COCHLEAR MODEL: NUMERICAL SIMULATIONS AND AN ANALYTICALLY REDUCED MODEL. Confluentes Mathematici, 2011, 03, 523-541.	0.2	1
47	An Excitable Compass Guides Chemotaxis?. Biophysical Journal, 2014, 106, 989-990.	0.5	0
48	The Feedback between Cellular Mechanics and Chemical Signalling during Cytoskeletal Remodelling. Biophysical Journal, 2019, 116, 414a.	0.5	0