

# Timothy E Saunders

## List of Publications by Year in descending order

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Version: 2024-02-01

53  
papers

2,355  
citations

331670

21  
h-index

243625

44  
g-index

75  
all docs

75  
docs citations

75  
times ranked

2887  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiview light-sheet microscope for rapid in toto imaging. <i>Nature Methods</i> , 2012, 9, 730-733.	19.0	453
2	Imaging fluorescence (cross-) correlation spectroscopy in live cells and organisms. <i>Nature Protocols</i> , 2015, 10, 1948-1974.	12.0	164
3	Embryo-scale tissue mechanics during <i>Drosophila</i> gastrulation movements. <i>Nature Communications</i> , 2015, 6, 8677.	12.8	159
4	Basolateral protrusion and apical contraction cooperatively drive <i>Drosophila</i> germ-band extension. <i>Nature Cell Biology</i> , 2017, 19, 375-383.	10.3	121
5	Cortical regulation of cell size by a sizer <i>cdr2p</i> . <i>ELife</i> , 2014, 3, e02040.	6.0	111
6	Spin Freezing in Geometrically Frustrated Antiferromagnets with Weak Disorder. <i>Physical Review Letters</i> , 2007, 98, 157201.	7.8	97
7	Decoding temporal interpretation of the morphogen Bicoid in the early <i>Drosophila</i> embryo. <i>ELife</i> , 2017, 6, .	6.0	84
8	Spin-glass transition in geometrically frustrated antiferromagnets with weak disorder. <i>Physical Review B</i> , 2010, 81, .	3.2	83
9	Noise Reduction in the Intracellular Pom1p Gradient by a Dynamic Clustering Mechanism. <i>Developmental Cell</i> , 2012, 22, 558-572.	7.0	83
10	Distal-less activates butterfly eyespots consistent with a reaction diffusion process. <i>Development (Cambridge)</i> , 2019, 146, .	2.5	65
11	Subtle Changes in Motif Positioning Cause Tissue-Specific Effects on Robustness of an Enhancer's Activity. <i>PLoS Genetics</i> , 2014, 10, e1004060.	3.5	59
12	Shaping the zebrafish myotome by intertissue friction and active stress. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 25430-25439.	7.1	53
13	Cortical tension overrides geometrical cues to orient microtubules in confined protoplasts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 32731-32738.	7.1	48
14	Shaping a Morphogen Gradient for Positional Precision. <i>Biophysical Journal</i> , 2010, 99, 697-707.	0.5	46
15	Bicoid gradient formation mechanism and dynamics revealed by protein lifetime analysis. <i>Molecular Systems Biology</i> , 2018, 14, e8355.	7.2	46
16	Geometric constraints alter cell arrangements within curved epithelial tissues. <i>Molecular Biology of the Cell</i> , 2017, 28, 3582-3594.	2.1	40
17	Morphogen profiles can be optimized to buffer against noise. <i>Physical Review E</i> , 2009, 80, 041902.	2.1	39
18	Selective Filopodia Adhesion Ensures Robust Cell Matching in the <i>Drosophila</i> Heart. <i>Developmental Cell</i> , 2018, 46, 189-203.e4.	7.0	38

#	ARTICLE	IF	CITATIONS
19	Shaping Organs: Shared Structural Principles Across Kingdoms. Annual Review of Cell and Developmental Biology, 2020, 36, 385-410.	9.4	35
20	Coupling optogenetics and light-sheet microscopy, a method to study Wnt signaling during embryogenesis. Scientific Reports, 2017, 7, 16636.	3.3	33
21	Embryonic geometry underlies phenotypic variation in decanalized conditions. ELife, 2020, 9, .	6.0	32
22	When it pays to rush: interpreting morphogen gradients prior to steady-state. Physical Biology, 2009, 6, 046020.	1.8	31
23	Growing Up in a Changing World: Environmental Regulation of Development in Insects. Annual Review of Entomology, 2021, 66, 81-99.	11.8	30
24	Roadmap for the multiscale coupling of biochemical and mechanical signals during development. Physical Biology, 2021, 18, 041501.	1.8	29
25	MpFEW RHIZOIDS1 miRNA-Mediated Lateral Inhibition Controls Rhizoid Cell Patterning in Marchantia polymorpha. Current Biology, 2020, 30, 1905-1915.e4.	3.9	29
26	Temporal development of <i>Drosophila</i> embryos is highly robust across a wide temperature range. Journal of the Royal Society Interface, 2018, 15, 20180304.	3.4	28
27	Stochastic activation and bistability in a Rab GTPase regulatory network. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6540-6549.	7.1	28
28	3D Protein Dynamics in the Cell Nucleus. Biophysical Journal, 2017, 112, 133-142.	0.5	27
29	A matter of time: Formation and interpretation of the Bicoid morphogen gradient. Current Topics in Developmental Biology, 2020, 137, 79-117.	2.2	27
30	Periodic Oscillations of Myosin-II Mechanically Proofread Cell-Cell Connections to Ensure Robust Formation of the Cardiac Vessel. Current Biology, 2020, 30, 3364-3377.e4.	3.9	27
31	Spatiotemporal Coordination of FGF and Shh Signaling Underlies the Specification of Myoblasts in the Zebrafish Embryo. Developmental Cell, 2018, 46, 735-750.e4.	7.0	26
32	Spatiotemporal Analysis of Different Mechanisms for Interpreting Morphogen Gradients. Biophysical Journal, 2015, 108, 2061-2073.	0.5	17
33	Critical phenomena in a highly constrained classical spin system: Néel ordering from the Coulomb phase. Europhysics Letters, 2008, 84, 36002.	2.0	16
34	Aster repulsion drives short-ranged ordering in the <i>Drosophila</i> syncytial blastoderm. Development (Cambridge), 2022, 149, .	2.5	16
35	Structural phase transitions in geometrically frustrated antiferromagnets. Physical Review B, 2008, 77, .	3.2	15
36	Gene expression boundary scaling and organ size regulation in the <i>Drosophila</i> embryo. Development Growth and Differentiation, 2017, 59, 21-32.	1.5	13

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37	Condensation of the Drosophila nerve cord is oscillatory and depends on coordinated mechanical interactions. <i>Developmental Cell</i> , 2022, 57, 867-882.e5.	7.0	12
38	Open questions: how to get developmental biology into shape?. <i>BMC Biology</i> , 2019, 17, 17.	3.8	11
39	Scaling of internal organs during Drosophila embryonic development. <i>Biophysical Journal</i> , 2021, 120, 4264-4276.	0.5	10
40	Mechanics of epidermal morphogenesis in the Drosophila pupa. <i>Seminars in Cell and Developmental Biology</i> , 2021, 120, 171-180.	5.0	9
41	Aggregation-fragmentation model of robust concentration gradient formation. <i>Physical Review E</i> , 2015, 91, 022704.	2.1	8
42	The mirtron miR-1010 functions in concert with its host gene SKIP to balance elevation of nAcR <sup>2</sup> . <i>Scientific Reports</i> , 2020, 10, 1688.	3.3	6
43	The Science of Living Matter for Tomorrow. <i>Cell Systems</i> , 2018, 6, 400-402.	6.2	5
44	MoD Special Issue celebrating 100 years since "On Growth and Form" by D <sup>TM</sup> Arcy Wentworth Thompson. <i>Mechanisms of Development</i> , 2017, 145, 1.	1.7	4
45	The role of cellular active stresses in shaping the zebrafish body axis. <i>Current Opinion in Cell Biology</i> , 2021, 73, 69-77.	5.4	4
46	Eleven quick tips for running an interdisciplinary short course for new graduate students. <i>PLoS Computational Biology</i> , 2018, 14, e1006039.	3.2	4
47	Slit-Robo signalling establishes a Sphingosine-1-phosphate gradient to polarise fin mesenchyme. <i>EMBO Reports</i> , 2022, 23, .	4.5	4
48	DNA-damage induced cell death in yap1;wwtr1 mutant epidermal basal cells. <i>ELife</i> , 0, 11, .	6.0	3
49	Imag(in)ing growth and form. <i>Mechanisms of Development</i> , 2017, 145, 13-21.	1.7	2
50	Mechanical processes underlying precise and robust cell matching. <i>Seminars in Cell and Developmental Biology</i> , 2021, 120, 75-75.	5.0	0
51	The early Drosophila embryo as a model system for quantitative biology. <i>Cells and Development</i> , 2021, , 203722.	1.5	0
52	Protocol for batch imaging and quantification of cellular mismatch during Drosophila embryonic heart formation. <i>STAR Protocols</i> , 2021, 2, 100817.	1.2	0
53	Editorial: Special Issue on "Mechanics in Development". <i>Seminars in Cell and Developmental Biology</i> , 2021, 120, 1-2.	5.0	0