Matthias Merkel

List of Publications by Year
in descending order

20 papers	1,240 citations	643344 15 h-index	843174 20 g-index
26 all docs	26 docs citations	26 times ranked	1293 citing authors

#	Article	IF	Citations
1	Implementation of cellular bulk stresses in vertex models of biological tissues. European Physical Journal E, 2022, 45, 4.	0.7	4
2	Phase separation dynamics in deformable droplets. Soft Matter, 2022, 18, 2672-2683.	1.2	5
3	Stiffening of under-constrained spring networks under isotropic strain. Soft Matter, 2022, 18, 5410-5425.	1.2	4
4	Cell and Nucleus Shape as an Indicator of Tissue Fluidity in Carcinoma. Physical Review X, 2021, 11, .	2.8	46
5	Anisotropy links cell shapes to tissue flow during convergent extension. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13541-13551.	3.3	90
6	A minimal-length approach unifies rigidity in underconstrained materials. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6560-6568.	3.3	71
7	Inferring statistical properties of 3D cell geometry from 2D slices. PLoS ONE, 2019, 14, e0209892.	1.1	8
8	A geometrically controlled rigidity transition in a model for confluent 3D tissues. New Journal of Physics, 2018, 20, 022002.	1.2	91
9	No unjamming transition in a Voronoi model of biological tissue. Soft Matter, 2018, 14, 3397-3403.	1.2	41
10	Cell volume changes contribute to epithelial morphogenesis in zebrafish Kupfferâ€™s vesicle. ELife, 2018, 7, .	2.8	32
11	Triangles bridge the scales: Quantifying cellular contributions to tissue deformation. Physical Review E, 2017, 95, 032401.	0.8	58
12	Quantitative methods to study epithelial morphogenesis and polarity. Methods in Cell Biology, 2017, 139, 121-152.	0.5	3
13	Active dynamics of tissue shear flow. New Journal of Physics, 2017, 19, 033006.	1.2	39
14	Correlating cell shape and cellular stress in motile confluent tissues. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12663-12668.	3.3	92
15	Using cell deformation and motion to predict forces and collective behavior in morphogenesis. Seminars in Cell and Developmental Biology, 2017, 67, 161-169.	2.3	51
16	TissueMiner: A multiscale analysis toolkit to quantify how cellular processes create tissue dynamics. ELife, 2016, 5, .	2.8	111
17	Interplay of cell dynamics and epithelial tension during morphogenesis of the Drosophila pupal wing. ELife, 2015, 4, e07090.	2.8	290
18	The Balance of Prickle/Spiny-Legs Isoforms Controls the Amount of Coupling between Core and Fat PCP Systems. Current Biology, 2014, 24, 2111-2123.	1.8	67

#	Article	IF	Citations
19	Establishment of Global Patterns of Planar Polarity during Growth of the Drosophila Wing Epithelium. Current Biology, 2012, 22, 1296-1301.	1.8	98
20	Synaptic filtering of rate-coded information. Physical Review E, 2010, 81, 041921.	0.8	27