Martin Lenz

List of Publications by Year
in descending order

43 papers	3,828 citations	257450 24 h-index	254184 43 g-index
53 all docs	53 docs citations	53 times ranked	5015 citing authors

#	Article	IF	Citations
1	Local structure of DNA toroids reveals curvature-dependent intermolecular forces. Nucleic Acids Research, 2021, 49, 3709-3718.	14.5	4
2	Passive coupling of membrane tension and cell volume during active response of cells to osmosis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	65
3	Chiral Active Hexatics: Giant Number Fluctuations, Waves, and Destruction of Order. Physical Review Letters, 2020, 125, 238005.	7.8	17
4	Anisotropic ESCRT-III architecture governs helical membrane tube formation. Nature Communications, 2020, 11, 1516.	12.8	55
5	Mapping and Modeling the Nanomechanics of Bare and Protein-Coated Lipid Nanotubes. Physical Review X, 2020, 10, .	8.9	7
6	Actin modulates shape and mechanics of tubular membranes. Science Advances, 2020, 6, eaaz3050.	10.3	14
7	Swimmer Suspensions on Substrates: Anomalous Stability and Long-Range Order. Physical Review Letters, 2020, 124, 028002.	7.8	25
8	Reversal of contractility as a signature of self-organization in cytoskeletal bundles. ELife, 2020, 9, .	6.0	12
9	Fiber plucking by molecular motors yields large emergent contractility in stiff biopolymer networks. Soft Matter, 2019, 15, 1481-1487.	2.7	5
10	Actin dynamics drive cell-like membrane deformation. Nature Physics, 2019, 15, 602-609.	16.7	73
11	Spontaneous rotation can stabilise ordered chiral active fluids. Nature Communications, 2019, 10, 920.	12.8	23
12	Stress-dependent amplification of active forces in nonlinear elastic media. Soft Matter, 2019, 15, 331-338.	2.7	12
13	Cell contraction induces long-ranged stress stiffening in the extracellular matrix. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4075-4080.	7.1	231
14	Modulation of formin processivity by profilin and mechanical tension. ELife, 2018, 7, .	6.0	43
15	A nonequilibrium force can stabilize 2D active nematics. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6934-6939.	7.1	43
16	Adaptive Response of Actin Bundles under Mechanical Stress. Biophysical Journal, 2017, 113, 1072-1079.	0.5	27
17	Geometrical frustration yields fibre formation inÂself-assembly. Nature Physics, 2017, 13, 1100-1104.	16.7	39
18	Membrane fission by dynamin: what we know and what we need to know. EMBO Journal, 2016, 35, 2270-2284.	7.8	388

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19	The dynamics of filament assembly define cytoskeletal network morphology. Nature Communications, 2016, 7, 13827.	12.8	24
20	Engineering Elasticity and Relaxation Time in Metal-Coordinate Cross-Linked Hydrogels. Macromolecules, 2016, 49, 8306-8312.	4.8	92
21	Fiber networks amplify active stress. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2827-2832.	7.1	143
22	Connecting local active forces to macroscopic stress in elastic media. Soft Matter, 2015, 11, 1597-1605.	2.7	14
23	Relaxation of Loaded ESCRT-III Spiral Springs Drives Membrane Deformation. Cell, 2015, 163, 866-879.	28.9	289
24	A balance between membrane elasticity and polymerization energy sets the shape of spherical clathrin coats. Nature Communications, 2015, 6, 6249.	12.8	165
25	Forcing cells into shape: the mechanics of actomyosin contractility. Nature Reviews Molecular Cell Biology, 2015, 16, 486-498.	37.0	487
26	Geometrical Origins of Contractility in Disordered Actomyosin Networks. Physical Review X, 2014, 4, .	8.9	31
27	Dynamical tunneling with ultracold atoms in magnetic microtraps. Physical Review A, 2013, 88, .	2.5	13
28	Activation of Membrane Fission by Local Elastic Energy Increase at the Edge of Dynamin. Biophysical Journal, 2013, 104, 617a.	0.5	0
29	Thick Filament Length and Isoform Composition Determine Self-Organized Contractile Units in Actomyosin Bundles. Biophysical Journal, 2013, 104, 655-665.	0.5	61
30	Requirements for contractility in disordered cytoskeletal bundles. New Journal of Physics, 2012, 14, 033037.	2.9	67
31	Membrane Shape at the Edge of the Dynamin Helix Sets Location and Duration of the Fission Reaction. Cell, 2012, 151, 619-629.	28.9	164
32	Assembly kinetics determine the architecture of Î±-actinin crosslinked F-actin networks. Nature Communications, 2012, 3, 861.	12.8	84
33	Contractile Units in Disordered Actomyosin Bundles Arise from F-Actin Buckling. Physical Review Letters, 2012, 108, 238107.	7.8	127
34	Reconstitution of Contractile Actomyosin Bundles. Biophysical Journal, 2011, 100, 2698-2705.	0.5	119
35	Polymerization of MIP-1 chemokine (CCL3 and CCL4) and clearance of MIP-1 by insulin-degrading enzyme. EMBO Journal, 2010, 29, 3952-3966.	7.8	129
36	Membrane curvature controls dynamin polymerization. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4141-4146.	7.1	262

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37	A Reaction-Diffusion Model of the Cadherin-Catenin System: A Possible Mechanism for Contact Inhibition and Implications for Tumorigenesis. Biophysical Journal, 2010, 98, 2770-2779.	0.5	17
38	Actin Cross-Linkers and the Shape of Stereocilia. Biophysical Journal, 2010, 99, 2423-2433.	0.5	5
39	Deformation of Dynamin Helices Damped by Membrane Friction. Biophysical Journal, 2010, 99, 3580-3588.	0.5	19
40	Mechanical requirements for membrane fission: Common facts from various examples. FEBS Letters, 2009, 583, 3839-3846.	2.8	53
41	ATP-dependent mechanics of red blood cells. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15320-15325.	7.1	277
42	Membrane Buckling Induced by Curved Filaments. Physical Review Letters, 2009, 103, 038101.	7.8	72
43	Mechanochemical action of the dynamin protein. Physical Review E, 2008, 78, 011911.	2.1	22