References

[1] Ichiro Sase et al. "Axial rotation of sliding actin filaments revealed by single-fluorophore imaging". In: *Proceedings of the National Academy of Sciences* 94.11 (1997), pp. 5646–5650.

[2] EN Cytrynbaum, JM Scholey, and Alexander Mogilner. "A force balance model of early spindle pole separation in Drosophila embryos". In: *Biophysical journal* 84.2 (2003), pp. 757–769.

[3] EN Cytrynbaum, V Rodionov, and A Mogilner. "Computational model of dynein-dependent self-organization of microtubule asters". In: *Journal of cell science* 117.8 (2004), pp. 1381–1397.

[4] EN Cytrynbaum et al. "Early spindle assembly in Drosophila embryos: role of a force balance involving cytoskeletal dynamics and nuclear mechanics". In: *Molecular biology of the cell* 16.10 (2005), pp. 4967–4981.

[5] Viacheslav Malikov et al. "Centering of a radial microtubule array by translocation along microtubules spontaneously nucleated in the cytoplasm". In: *Nature cell biology* 7.12 (2005), pp. 1213–1218.

[6] R Wollman et al. "Efficient chromosome capture requires a bias in the 'search-and-capture'process during mitotic-spindle assembly". In: *Current Biology* 15.9 (2005), pp. 828–832.

[7] J Christian Ambrose et al. "The Arabidopsis CLASP gene encodes a microtubule-associated protein involved in cell expansion and division". In: *The Plant Cell* 19.9 (2007), pp. 2763–2775.

[8] EN Cytrynbaum and BDL Marshall. "A multistranded polymer model explains MinDE dynamics in E. coli cell division". In: *Biophysical journal* 93.4 (2007), pp. 1134–1150.

[9] Verônica A Grieneisen et al. "Auxin transport is sufficient to generate a maximum and gradient guiding root growth". In: *Nature* 449.7165 (2007), pp. 1008–1013.

[10] JF Allard and EN Cytrynbaum. "Force generation by a dynamic Z-ring in Escherichia coli cell division". In: *Proceedings of the National Academy of Sciences* 106.1 (2009), pp. 145–150.

[11] Andrej Vilfan. "Twirling motion of actin filaments in gliding assays with nonprocessive myosin motors". In: *Biophysical journal* 97.4 (2009), pp. 1130–1137.

[12] JF Allard, GO Wasteneys, and EN Cytrynbaum. "Mechanisms of self-organization of cortical microtubules in plants revealed by computational simulations". In: *Molecular biology of the cell* 21.2 (2010), pp. 278–286.

[13] JF Allard et al. "A mechanochemical model explains interactions between cortical microtubules in plants". In: *Biophysical journal* 99.4 (2010), pp. 1082–1090.

[14] C Ambrose et al. "A CLASP-modulated cell edge barrier mechanism drives cell-wide cortical microtubule organization in Arabidopsis". In: *Nature communications* 2.1 (2011), pp. 1–12.

[15] Hiroaki Mizuno et al. "Rotational movement of the formin mDia1 along the double helical strand of an actin filament". In: *Science* 331.6013 (2011), pp. 80–83.

[16] EN Cytrynbaum et al. "Estimating the bending modulus of a FtsZ bacterial-division protein filament". In: *Physical Review E* 85.1 (2012), p. 011902.

[17] S Fürthauer et al. "Active chiral fluids". In: *The European physical journal E* 35 (2012), pp. 1–13.

[18] Chris Ambrose et al. “CLASP interacts with sorting nexin 1 to link microtubules and auxin transport via PIN2 recycling in Arabidopsis thaliana”. In: *Developmental Cell* 24.6 (2013), pp. 649–659.

[19] Sebastian Fürthauer et al. “Active chiral processes in thin films”. In: *Physical review letters* 110.4 (2013), p. 048103.

[20] Sundar Ram Naganathan et al. “Active torque generation by the actomyosin cell cortex drives left–right symmetry breaking”. In: *elife* 3 (2014), e04165.

[21] Adam Barrada et al. “Spatial regulation of root growth: placing the plant TOR pathway in a developmental perspective”. In: *International journal of molecular sciences* 16.8 (2015), pp. 19671–19697.

[22] Konstantin Popov, James Komianos, and Garegin A Papoian. “MEDYAN: Mechanochemical simulations of contraction and polarity alignment in actomyosin networks”. In: *PLoS computational biology* 12.4 (2016), e1004877.

[23] Yuan Ruan et al. “The microtubule-associated protein CLASP sustains cell proliferation through a brassinosteroid signaling negative feedback loop”. In: *Current Biology* 28.17 (2018), pp. 2718–2729.

[24] Sven Bachmann, Richard Froese, and Eric N Cytrynbaum. “A buckling instability and its influence on microtubule orientation in plant cells”. In: *SIAM Journal on Applied Mathematics* 79.5 (2019), pp. 2132–2149.

[25] Eric N Cytrynbaum et al. “Double-wave reentry in excitable media”. In: *Chaos: An Interdisciplinary Journal of Nonlinear Science* 29.7 (2019), p. 073103.

[26] Olivier Hamant et al. “Are microtubules tension sensors?” In: *Nature communications* 10.1 (2019), p. 2360.

[27] Valentina Biasci et al. “Universal mechanisms for self-termination of rapid cardiac rhythm”. In: *Chaos: An Interdisciplinary Journal of Nonlinear Science* 30.12 (2020), p. 121107.

[28] Kenji Sugioka. “Symmetry-breaking of animal cytokinesis”. In: *Seminars in Cell & Developmental Biology*. Elsevier. 2021.

[29] Carlos Floyd et al. “On stretching, bending, shearing, and twisting of actin filaments I: Variational models”. In: *Journal of Chemical Theory and Computation* 18.8 (2022), pp. 4865–4878.

[30] Sungrim Seirin-Lee, Kazunori Yamamoto, and Akatsuki Kimura. “The extra-embryonic space and the local contour are crucial geometric constraints regulating cell arrangement”. In: *Development* 149.9 (2022), dev200401.

[31] WC Carlquist and EN Cytrynbaum. “The mechanism of MinD stability modulation by MinE in Min protein dynamics”. In: *PLoS Computational Biology* (2023).

[32] Tim YY Tian, Colin B Macdonald, and Eric N Cytrynbaum. “A stochastic model of cortical microtubule anchoring and mechanics provides regulatory control of microtubule shape”. In: *Bulletin of Mathematical Biology* 85.11 (2023), pp. 1–23.