Daniel M. Sussman Publication List (1/9/2019)

31. A. Patch, D. M. Sussman, D. Yllanes, and M. C. Marchetti; "Curvature-dependent tension and tangential flows at the interface of motility-induced phases" *Soft Matter* **14**, 7435 (2018)

30. D. M. Sussman and M. Merkel; "No unjamming transition in a Voronoi model of biological tissue" *Soft Matter* **14**, 3397 (2018)

29. D. M. Sussman, M. Paoluzzi, M. C. Marchetti, and M. L. Manning; "Anomalous glassy dynamics in simple models of dense biological tissue" *Europhysics Letters* **121**, 36001 (2018)

28. D. M. Sussman, J. M. Schwarz, M. C. Marchetti, and M. L. Manning; "Soft yet sharp interfaces in a vertex model of confluent tissue" *Phys. Rev. Lett.* **120**, 058001 (2018)
Editors' suggestion. See also a synopsis in *Physics* and *Physics World*

27. D. M. Sussman, S. S. Schoenholz, E. D. Cubuk, and A. J. Liu; "Disconnecting structure and dynamics in glassy thin films" *Proc. Natl. Acad. Sci. USA* **114**, 10601 (2017)

26. D. M. Sussman; "cellGPU: massively parallel simulations of dynamic vertex models" *Computer Physics Communications* **219**, 400 (2017)

25. D. M. Sussman, D. Hexner, C. P. Goodrich, and A. J. Liu; "Reply to the 'Comment on "Spatial structure of states of self stress in jammed systems,"" *Soft Matter* **13**, 1532 (2017)

24. K. S. Schweizer and D. M. Sussman; "A Force-Level Theory of the Rheology of Entangled Rod and Chain Polymer Liquids," *J. Chem. Phys.* **145**, 214903 (2016)

23. T. Castle, D. M. Sussman, M. Tanis and R. D. Kamien; "Additive lattice kirigami," *Sci. Adv.* **2**, e1601258 (2016)

22. D. M. Sussman; "Spatial distribution of entanglements in thin free-standing films," *Phys. Rev. E* **94**, 012503 (2016)

21. D. M. Sussman, O. Stenull, and T. C. Lubensky; "Topological boundary modes in jammed matter," *Soft Matter* **12**, 6079 (2016)

20. S. S. Schoenholz, E. D. Cubuk, D. M. Sussman, E. Kaxiras, and A. J. Liu; "A structural approach to relaxation in glassy liquids," *Nature Physics* **12**, 469 (2016)

19. D. M. Sussman, C. P. Goodrich, and A. J. Liu; "Spatial organization of states of self-stress in jammed systems," *Soft Matter* **12**, 3982 (2016)

18. D. M. Sussman, S. S. Schoenholz, Y. Xu, T. Still, A. G. Yodh, and A. J. Liu; "Strain fluctuations and elastic moduli in disordered solids," *Phys. Rev. E* **92**, 022307 (2015)

17. D. M. Sussman, Y. Cho, T. Castle, X. Gong, E. Jung, S. Yang, and R. D. Kamien; "Algorithmic Lattice Kirigami: A Route to Pluripotent Materials," *Proc. Natl. Acad. Sci.* **112**, 7449 (2015)
See also a commentary on this paper at the Condensed Matter Journal Club.

16. D. M. Sussman, C. P. Goodrich, A. J. Liu, and S. R. Nagel; "Disordered surface vibrations in jammed sphere packings," *Soft Matter* **11**, 2745 (2015)

15. I. Amburg, R. Sharma, D. M. Sussman, and W. K. Wootters; "States that "look the same" with respect to every basis in a mutually unbiased set," *J. Math. Phys.* **55**, 122206 (2014)

14. T. Castle, Y. Cho, X. Gong, E. Jung, D. M. Sussman, S. Yang, and R. D. Kamien; "Making the Cut: Lattice Kirigami Rules," *Phys. Rev. Lett.* **113**, 245502 (2014)

13. M. A. Lohr, R. Ganit, T. Still, M. D. Gratale, K. B. Aptowicz, C. P. Goodrich, D. M. Sussman, and A. G. Yodh; "Vibrational and Structural Signatures of the Crossover Between Dense Glassy and Sparse Gel-Like Attractive Colloidal Packings," *Phys. Rev. E* **90**, 062305 (2014)

12. D. M. Sussman, W.-S. Tung, K. I. Winey, K. S. Schweizer, and R. A. Riggleman; "Entanglement Reduction and Anisotropic Chain and Primitive Path Conformations in Polymer Melts Under Thin Film and Cylindrical Confinement," *Macromolecules* **47**, 6462 (2014)

11. D. A. Beller, T. Machon, S. Čopar, D. M. Sussman, G. P. Alexander, R. D. Kamien, and R. A. Mosna; "The Geometry of the Cholesteric Phase," *Phys. Rev. X* **4**, 031050 (2014)

10. D. M. Sussman and K. S. Schweizer; "Entangled polymer chain melts: Orientation and deformation dependent tube confinement and interchain entanglement elasticity," *J. Chem. Phys.* **139**, 234904 (2013)

9. D. M. Sussman and K. S. Schweizer; "Entangled Rigid Macromolecules Under Continuous Startup Shear Deformation: Consequences of a Microscopically Anharmonic Confining Tube," *Macromolecules* **46**, 5684 (2013)

8. D. M. Sussman and K. S. Schweizer; "Microscopic theory of Entangled Polymer Melt Dynamcs: Flexible Chains as Primitive-Path Random Walks and Supercoarse Grained Needles," *Phys. Rev. Lett.* **109**, 168306 (2012)

7. D. M. Sussman and K. S. Schweizer; "Space-time correlated two-particle hopping in glassy fluids: Structural relaxation, irreversibility, decoupling, and facilitation," *Phys. Rev. E* **85**, 061504 (2012)

6. D. M. Sussman and K. S. Schweizer; "Microscopic Theory of Quiescent and Deformed Topologically Entangled Rod Solutions: General Formulation and Relaxation after Nonlinear Step Strain," *Macromolecules* **45**, 3270 (2012)

5. D. M. Sussman and K. S. Schweizer; "Communication: Effects of stress on the tube confinement potential and dynamics of topologically entangled rod fluids," *J. Chem. Phys.* **135**, 131104 (2011)

4. D. M. Sussman and K. S. Schweizer; "Microscopic theory of the tube confinement potential for liquids of topologically entangled rigid macromolecules," *Phys. Rev. Lett.* **107**, 078102 (2011)

3. D. M. Sussman and K. S. Schweizer; "Microscopic theory of topologically entangled fluids of rigid macromolecules," *Phys. Rev. E* **83**, 061501 (2011)

2. D. M. Sussman and K. S. Schweizer; "Theory of correlated two-particle activated glassy dynamics: General formulation and heterogeneous structural relaxation in hard sphere fluids," *J. Chem. Phys.* **134**, 064516 (2011)

1. W. K. Wootters and D. M. Sussman; "Discrete phase space and minimum uncertainty States," *Proceedings of the Eighth International Conference on Quantum Communication, Measurement and Computing*, pp. 269-274, NICT Press (2007)