Jamming of Solid-Stabilized Emulsions

SUJIT DATTA, Department of Physics, Harvard University, KOSTA LADAVAC, RODRIGO GUERRA, DAVID WEITZ — Emulsions — metastable suspensions of droplets of one fluid dispersed within another — can be concentrated over a wide range of volume fractions, due to droplet deformability. Here, we study the rheological properties of solid-stabilized (versus surfactant-stabilized) emulsions over a range of volume fractions. These experiments allow us to explore the role of interfacial effects in determining bulk mechanical behavior, potentially yielding further insight into the elasticity of jammed emulsions.