Frictionless Shear Jamming, a finite-size phenomenon

MARCO BAITY-JESI, Universidad Complutense de Madrid, CARL GOODRICH, Harvard University, JAMES SETHNA, Cornell University, ANDREA LIU, University of Pennsylvania — Athermal frictionless spheres jam as their density is increased. A few years ago, it was shown that at sufficiently high density, an initially unjammed system of frictional particles can jam under shear. Here we study shear jamming in packings of frictionless particles, and show that it is a finite-size effect with scalings that can be understood within a generalized scaling theory.