

Abstract Submitted  
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**Slow Shear of Non-Spherical Particles**<sup>1</sup> SOMAYEH SOMAYEH, JIE REN, Duke University, TREVOR SHANNON, Duke University, MIT, JIE ZHANG, ROBERT BEHRINGER, Duke University — We probe the microscopic properties of granular materials consisting of ellipsoidal particles. The aim of these studies is to understand the role played by particle shape. The experiments are carried out in 2D and consist of pure shear with maximum strains up to 0.3, followed by reverse shear. The particles are made of a photoelastic material, so that we can determine particle-scale forces as well as particle displacements, rotations and orientations. We present results for the stresses, strains, contact forces, etc.

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