

Abstract Submitted
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Visualization of displacement fields in sheared granular systems

KINGA LORINCZ, PETER SCHALL, University of Amsterdam — The jamming transition, i.e. the transition in a granular system from rest to flow is a fundamental problem of great importance to the understanding of a wide class of disordered materials: grains, clay and glassy materials such as molecular glasses and gels. We visualize the particles in a sheared three-dimensional granular packing immersed in an index matching liquid using confocal microscopy and laser sheet imaging. These experimental methods allow for an accurate determination of the displacement field of the particles at the onset of flow.

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