Schedule for 13th Granular Materials Workshop Clark University, Sackler Sciences Center Johnson Auditorium (Room S-120) Friday, June 12, 2015

9:00 – 9:25 Registration/Breakfast (Sackler lobby)

Session: Modelling Granular Matter - Chair: Arshad Kudrolli

- 9:25 10:10 *Three-dimensional continuum modeling of dense granular flow* David Henann, Brown University
- 10:10 10:20 Non-universal behavior in the bubble model: it's a drag Craig Maloney, Northeastern University
- 10:20 10:30 *Experiments on 2d Arrays of Trapped Magnetized Balls: Static Shell Configurations and Velocity Distributions under Mechanical Agitation* Peter Koch, Stony Brook U.

Coffee/Posters

Session: Grain-Fluid Interactions - Chair: Mark Shattuck

- 11:00 11:45 *Discharge and clogging of grains from a hopper, and the influence of interstitial fluid* Doug Durian, University of Pennsylvania
- 11:45 11:55 Onset and cessation of motion in fluid-sheared granular beds Abe Clark, Yale University
- 11:55 12:05 A visco-granular model of sedimentation in hydrogels Xavier Clotet, Clark University

Lunch (Tilton Hall, Higgins University Center)

Session: Geometry, Elasticity, and Locomotion - Chair: Nalini Easwar

1:30 - 2:15 Harnessing instabilities in soft structures to enhance performance Katia Bertoldi, Harvard University
2:15 - 2:25 Running on shear thickening suspensions Shomeek Mukhopadhyay, Yale University
2:25 - 2:35 The effect of head shape on penetration of granular materials: An analysis of lizard mechanical models Philip Bergmann, Clark University
2:35 - 2:45 DEM analysis of mechanical interactions between a growing root and a granular soil Mahmoud Fakih, Montpellier University

Coffee/Posters

Session: Plasticity and Jamming - Chair: Narayanan Menon

3:00 - 3:10 Memory Effect in Crumpled Thin Sheets Yoav Lahini, MIT
3:10 - 3:20 Why are ternary systems better glass formers? Kai Zhang, Yale University
3:20 - 4:05 Shear-induced jamming of granular packings Corey O'Hern, Yale University

Discussion and Lab tour

4:05 - 5:00

List of Posters

Particle Scale Erosion by Shear Flow Benjamin Allen, Clark University

The origin of resistive force theory in granular materials Hesam Askari, MIT

Segregation dynamics in fluid-driven annular couette flow: contribution of subsurface processes to surface armoring in an idealized riverbed Behrooz Ferdowsi, University of Pennsylvania

Enhanced Oil recovery with Polymer Flooding Shima Parsa, Harvard University

Mobility Condition for a Particle on a Rough Surface in a Fluid Flow David Scheff, Clark University