

19th Annual Northeastern

Granular Materials Workshop

Friday June 16th, 2023

Department of Physics, University of Massachusetts Amherst

Schedule

Friday, June 16, 2023

8:45 - 9:30	Refreshments	
9:30	Meeting Starts	
	Session I Chair: Bulbul Chakraborty, Brandeis University	
9:35 - 10:15	<i>What can very small faults in the lab tell us about deformation in the Earth's crust?</i>	Michele Cooke
10:15 - 10:30	<i>Average outpouring velocity and flow rate of grains discharged from a tilted quasi-2D silo</i>	Ryan Kozlowski
10:30 - 10:45	<i>Understanding granular electrostatics through peeling adhesive tape</i>	Mary Reiter
10:45 - 11:10	Coffee Break	
	Session II Chair: Mark Shattuck, The City College of New York	
11:00 - 11:40	<i>Micro- and meso-mechanics of shear-thickening in dense suspensions</i>	Safa Jamali
11:40 - 11:55	<i>Dynamics of magnetoelastic robots in water-saturated granular beds</i>	Animesh Biswas
11:55 - 12:10	<i>The pendant drop experiment for aggregates of adhesive granular particles</i>	Yasaman Heshmatzadeh
12:10 - 1:30	Lunch	
	Session III Chair: Ken Kamrin, MIT	
1:30 - 1:45	<i>Coupled continuum modeling of flow and size segregation in dense granular materials</i>	Harkirat Singh
1:45 - 2:25	<i>Structured Flow Instabilities in Excited Granular Materials</i>	Chris Boyce
2:30 - 3:20	Table Talks (w/Coffee): Ashbell Abraham, Sohumi Kapadia, Ken Kamrin, Don Candela, Lori McCabe, Mike D'Eon, Amit Dawadi	
	Session IV Chair: Arshad Kudrolli, Clark University	
3:30-3:45	<i>Bidirectional wave-propelled capillary spinners</i>	Jack-William Barotta
3:45 - 4:00	<i>Steering colloids using solute gradients and flow across complex landscapes</i>	Amir Pahlavan
4:00 - 4:40	<i>Statistics of spherical and anisotropic particles in strongly sheared flows</i>	Varghese Mathai
4:45	Conclude	

Table Talks

Ashbell Abraham Penn State University [*A pinned contact line encodes a detailed memory of its motion.*](#)

Don Candela UMass Amherst [*Shear-history memory in compressed granular packs*](#)

Mike D'Eon Brandeis University [*Fractonic Coulomb Gas Model of Shear Induced Jamming*](#)

Amit Dawadi Clark University [*Packing and Crease Evolution under Iterative Twist-Crumpling*](#)

Ken Kamrin MIT

Sohum Kapadia Clark University [*Dynamics of Lumbriculus variegatus in a square confinement*](#)

Lori McCabe Mount Holyoke College [*Flow of Photoelastic Particles in a 2D Silo*](#)