

21<sup>th</sup> Annual Northeastern

# Granular Materials Workshop

Friday June 13<sup>th</sup>, 2025

Mechanical Engineering & Material Science, Yale University

## Schedule

Friday, June 13, 2025

9:00 - 9:15	<b>Introduction and Welcome</b>	
	<b>Session I</b>	
9:15 - 10:00	Invited Talk: <i>Self-organized mechanics of a bird nest</i>	Hunter King
10:00 - 10:20	<i>Chemical gradients shape the transport of colloids and bacteria in complex flows</i>	Amir Pahlavan
10:20 - 10:40	<b>Coffee Break</b>	
	<b>Session II</b>	
10:40 - 11:25	Invited Talk: <i>How the same small-scale contact process connects to different large-scale mechanical properties ranging from rheology to elasticity</i>	Liuchi Li
11:25 - 11:45	<i>Mermaid Cereal: Interactions and Pattern Formation in a Macroscopic Magnetocapillary SALR System</i>	Daniel Harris
11:45 - 12:45	<b>Sound Bite Session</b>	
12:45 - 2:00	<b>Lunch</b>	
	<b>Session III</b>	
2:00 - 2:45	Invited Talk: <i>From Icy Soil Drips to Rivers of Brazil Nuts: Connections between Earths landscapes and everyday materials</i>	Rachel Glade
2:45 - 3:05	<i>Learning As Neural Manifold Packing</i>	Stefano Martiniani
3:05 - 3:35	<b>Break</b>	
	<b>Session IV</b>	
3:35 - 4:20	Invited Talk: <i>High Pressure Granular Mechanics at Low and High Strain Rates.</i>	Ryan Hurley
4:20 - 4:40	<i>Leveraging Dual-Mode Vibration to Induce Horizontal Motion of Bubbles in Gas-Fluidized Granular Materials</i>	Ocsar Punch
4:40 - 5:00	Comments, Next meeting, <b>Adjourn</b>	