



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Statistical Physics and Condensed Matter Seminar

Title: Universality and scaling in the proximity of jamming: a perspective on the rheology of dense

suspensions

Speaker: Bulbul Chakraborty (Brandeis University, USA)

Date: Wednesday, 08 October 2025

Time : 3:00 PM (IST)

Abstract: Universality, Scaling and the framework of Wilson's Renormalization Group are seminal

concepts that have shaped our understanding of phase transitions and complex phase behavior in thermal systems. Generalizing these ideas to non-thermal systems, ones that explore configuration space without any thermal motion, pose significant challenges. Recently, a combination of experiments, simulations and theoretical analysis have been used to establish scaling and universality in non-Brownian suspensions that are close jamming. In this talk, I will present my perspective on the implications of this result and how we can build on it to develop

predictive theories.

Venue : Madhava Lecture Hall

Zoom Link: https://icts-res-in.zoom.us/j/94805660360?pwd=RqEAKMG2tabwbVB5ocR1bj6bGAoS0a.1

Meeting ID: 948 0566 0360

Passcode: 202030