



ICTS Seminar

- Title : Onset of Fluidization in Athermal Amorphous Materials: Insights from Microscopic Simulations and Elastoplastic Models
- Speaker : Suman Dutta (Institute of Mathematical Sciences, Chennai)
- Date : Wednesday, 21 October 2020
- Time : 04:00 pm (IST)
- Abstract : Amorphous materials are part of the family of yield stress materials. When impacted by the imposition of stress, they yield beyond a critical threshold. We take such solids of different preparation history to study the mechanical response under applied deformation, implemented via molecular dynamics simulations. We analyze the microscopic dynamics and investigate the onset of flow and the persistence of spatial heterogeneity at different imposed stresses. We address how increasing spatial fluctuations lead to macro-scale flow. We also formulate mesoscale elastoplastic descriptions using coarse-grained microscopic inputs.
- Online Seminar : Please click on the below link to join the seminar
<https://guest.livesize.com/5110340> (supported browser: Google Chrome)