



ICTS Seminar (HYBRID)

Title : Dynamics and Rheology of Glassy Active Matter

Speaker : Rituparno Mandal (University of Chicago)

Date : Tuesday, 09^h May 2023

Time : 03:00 pm (IST)

Abstract : Two major outstanding questions in theoretical physics are how to describe (a) driven or active systems far from equilibrium and (b) disordered systems characterized by a very slow relaxation (e.g. glassy dynamics). In this presentation I will attempt to provide a unified theoretical and computational description of an active glass, a system that exists at the intersection of these two challenging domains. Examples include Epithelial tissue, the cellular cytoplasm, a dense assembly of self-propelled colloids, to name a few. I would like to discuss the dynamics and phase diagram of a canonical model active glassy matter and show how the rheological perturbation in such a system can lead to a novel type of shear induced ordering. I will also provide an outlook on pertinent questions and discuss briefly about the possible future directions.

Venue : **Offline:** Madhava Lecture Hall (ICTS)

Online: Please click the below link to join the seminar.

<https://icts-res-in.zoom.us/j/81590912305?pwd=WDJwV0pRNTdLM2M3c0plTy9VdjhyZz09>

Meeting ID: 815 9091 2305

Passcode: 090923