

Seminar

Origin of Anomalous Dynamical Heterogeneity in Active Glass

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Active glass is a term used to describe densely disordered systems with particles that are influenced by both thermal and active forces. Surprisingly, similar dynamics are found in biological systems such as epithelial cell tissues, cell cytoplasm, and ant colonies. Understanding the impact of activity on glassy systems has become a critical area of study due to presence in biological systems in abundance. One important characteristic of these systems is Dynamical Heterogeneity (DH), which can be measured in terms of dynamic susceptibility. In active glass, this Dynamical Heterogeneity displays anomalous behaviour not seen in passive glass. In this talk, I will discuss the origin of the anomalous nature of Dynamic Heterogeneity in active glass. Then, I will show that in a small activity limit, one can compute the amount of activity present in the system from the degree of heterogeneity.

Monday, Jul 22nd 2024

14:30 Hrs (Tea / Coffee 14:15 Hrs)

Auditorium, TIFR-H