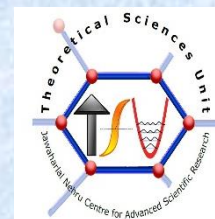




Jawaharlal Nehru Centre for Advanced Scientific Research

Jakkur P.O. Bangalore 560 064

Theoretical Sciences Unit



SEMINAR NOTICE

Title: “Making sense of the glass transition”

Abstract: As a liquid is cooled below the melting temperature, the dynamics become increasingly sluggish with the degree of supercooling, known as fragility. The fundamental question is whether the liquid ceases to flow at some finite temperature, the material undergoing the glass transition, or dynamics diverge smoothly to zero temperature. This is a central question of pivotal importance for unraveling the nature of glass and theoretical understanding, concealing with astronomical long observation times.

I will address this infeasibility by swap Monte Carlo with multi-billion speedups for equilibration well beyond the glass transition. With a wide range of the system size and temperature, I will discuss the generic picture of a supercooled system with a complete potential-energy landscape, thermodynamics, and its implications in the dynamics.

Ref. - Parmar, A. D., & Heuer, A. (2023). Depleting states dictate the ideal glass and physics of glass transition. *arXiv preprint arXiv:2307.10143*.

Speaker: Dr. Anshul D. S. Parmar

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Date: November 21, 2023 (Tuesday)

Time: 02:00pm (Tea: 03:00 pm)

Venue: Kanada Auditorium, JNCASR

Organizer: Prof. Srikanth Sastry

All are cordially invited