

MONDAY

COLLOQUIUM

Yielding, jamming, and glassy dynamics of
confluent epithelial systems

Saroj K Nandi (TIFR, Hyderabad)

24 Aug 2026 (Monday) | 16:00 Hrs (Tea / Coffee 15:45 Hrs) | Venue: TIFRH Auditorium

The epithelium acts as a protective boundary for many vital organs, and its properties are crucial for several biological processes, including wound healing, embryogenesis, and cancer progression. The epithelium is a densely packed monolayer of cells and lies at the intersection of liquid and solid states. Apart from their biological relevance, they are highly interesting systems from the physics point of view. The glassy dynamics in these cellular systems differ significantly from those of particulate systems. In addition, the yielding properties are also nontrivial. Theoretical descriptions of such systems represent cells by polygons with preferred perimeter and area. In this talk, I will first discuss some interesting results on the static properties of such systems. I will then discuss their nontrivial glassy and yielding properties.