



अंतर्राष्ट्रीय सैद्धांतिक विज्ञान केंद्र
International Centre for Theoretical Sciences

टाटा मूलभूत अनुसंधान संस्थान

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भारत सरकार के परमाणु ऊर्जा विभाग की एक स्वायत्त संस्थान एवं समविश्वविद्यालय

An Autonomous Institution of the Department of Atomic Energy of Government of India and a Deemed to be University

ICTS Statistical Physics and Condensed Matter Seminar

Title : Quasiparticle dynamics and density correlations in hard rod gas

Speaker : Indranil Mukherjee (ICTS-TIFR, Bengaluru)

Date : Monday, 25 May 2026

Time : 10:30 AM – 12:00 PM (IST)

Abstract : Hard rod gas in one dimension is a simple interacting integrable system. The dynamics of a collection of hard rods can be described by a gas of interacting quasiparticles, each tagged by its bare velocity. We first discuss the stochastic dynamics of such quasiparticles from a microscopic perspective. We then present the density correlations of quasiparticles at different spatial positions using both microscopic methods and hydrodynamic theory.

Venue : Chern Lecture Hall

Zoom Link: <https://icts-res-in.zoom.us/j/93297550802?pwd=WL4r1CzDN53baR9bRMZbzFQFea4IMa.1>

Meeting ID: 932 9755 0802

Passcode: 272371