



**S N BOSE NATIONAL CENTRE  
FOR BASIC SCIENCES**

*Block JD, Sector III, Salt Lake, Kolkata 700 106*

## **DEPARTMENTAL SEMINAR**

# **Physics of Complex Systems**

**24<sup>th</sup> February, 2023**

**3.00 PM**

**ONLINE / FERMION**

### **SPEAKER**

**Prof. Soumya Bera,  
Professor, Dept. of Physics, IIT - Bombay**

### **TITLE OF THE TALK**

## **Many-body delocalization**

### **ABSTRACT**

Many-body localization (MBL) is a fascinating spatio-temporal phenomenon that is believed to exist in one-dimensional interacting fermion systems at strong enough disorder. One of the most important consequences of the MBL phase is that it can be described as an emergent integrable phase that has logarithmically slow entanglement propagation.

Within exact numerical calculation, I will show such claims are invalid, and rather the strong disorder phase shows a slow tendency toward thermalization.

### **HOST FACULTY**

**Dr. Arijit Halder, Assistant Professor  
DEPT. OF PHYSICS OF COMPLEX SYSTEMS**

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