



# INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

## SEMINAR

Date: November 14, 2024

Time: 02:00 PM

### VENUE:

**L- 2**

(4<sup>th</sup> Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

### TITLE:

**Real topological Hochschild homology and the  $C_2$ -equivariant Thom spectrum**

### SPEAKER:

**Abhinandan Das**

Stat-Math Unit, ISI Kolkata

### ABSTRACT:

*Analogous to Atiyah's K-Theory with reality which gives a  $C_2$ -ring spectrum  $K\langle\mathbb{R}\rangle$  which is commutative in appropriate sense; Hasselholt and Madsen defined a  $C_2$ -equivariant version of Waldhausen  $S_\bullet$  construction. This induces a Real K-theory functor  $KR$  from exact categories with duality to the category of spectra with involution or Real spectra. Emanuele Dotto developed trace methods to study  $KR$ , developing a  $C_2$ -equivariant version of Topological Hochschild Homology, called Real Topological Hochschild Homology (THR). In this talk we'll discuss interaction between THR and the  $C_2$ -equivariant Thom spectrum functor and how it gives a  $C_2$ -equivariant version of Blumberg, Cohen, Schlichtkrull's work. We'll also discuss an application in the context of  $KR$ .*

**ALL ARE CORDIALLY INVITED**