



Theoretical Statistics and Mathematics Unit, Kolkata
INDIAN STATISTICAL INSTITUTE

Thesis Proposal Seminar

Date: June 23, 2025
Time: 2:30 PM

VENUE:

L- 1

(3rd Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

TITLE:

Torsion freeness for free product of C^* -tensor categories

SPEAKER:

Utsabraaj Sarkar

Stat-Math Unit, ISI Kolkata

ABSTRACT:

The study of torsion-freeness of discrete quantum groups was initiated by R. Meyer to formulate a version of Baum-Connes conjecture for discrete quantum groups. In this seminar we will talk about torsion-freeness in the more general setting of abstract rigid C^ -tensor categories. We will investigate mainly two types of notions : one is torsion-free category and the other one is torsion-free fusion rings. In the paper "Torsion-freeness for fusion rings and tensor C^* -categories" by Yuki Arano and Kenny De Commer, it was shown that strong torsion-freeness ie. torsion freeness of the underlying fusion ring is preserved under taking free products of discrete quantum groups. But our main interest is on abstract categories. So, we would like to investigate to which extent these results can be generalized for free products of rigid semisimple C^* -tensor categories.*

ALL ARE CORDIALLY INVITED