

**Theoretical Statistics & Mathematics Unit
Indian Statistical Institute
203 B T Road, Kolkata 700108.**

THESIS PROPOSAL SEMINAR

Of

BAPPA GHOSH

Stat-Math Unit, ISI, Kolkata

Date & Time

05th August, 2024; 03:00 PM

Title of the Talk

Levi-Civita connections on a class of covariant differential calculi

Abstract

We propose to study the existence and uniqueness of Levi-Civita connections on a class of noncommutative manifolds. There are already a number of approaches in the literature to address this question. We begin by explaining the definition of metric and metric compatibility of a bimodule connection which are due to Beggs and Majid. If the underlying differential calculus has a Kahler structure, our goal is to connect the Levi-Civita connection with the Chern connection on the space of $(1,0)$ -forms of the calculus. Our motivating class of examples include the 2-cocycle deformations of classical Kahler manifolds as well as the Heckenberger Kolb calculi on the irreducible quantized flag manifolds.

Online Meeting Details

<https://meet.google.com/yfp-hbxi-jts>

All are Cordially Invited