



INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

SEMINAR

Date: January 22, 2024

Time: 04:15 PM

VENUE:

L-infinity

(5th Floor, A.N. Kolmogorov Bhavan), ISI Kolkata

TITLE:

Central Limit Theorem in High Dimension

SPEAKER:

Debraj Das

IIT Bombay

ABSTRACT:

Central Limit Theorem (CLT) is one of the oldest as well as remarkable results of classical probability theory. In most simplest words, CLT is a statement about the convergence of properly centered and scaled sample mean of a sequence of random vectors to the Gaussian random vector in distribution. The recent interest lies in establishing CLT when the dimension also grows with the sample size. I will shed light on recent developments as well as describe some results related to critical growth rate of dimension. If time permits, I will state a characterisation of the Normal distribution in terms of high dimensional CLT and will briefly describe the benefits of self-normalization/studentization in reducing the requirement of existence of exponential moments to some polynomial moments.

ALL ARE CORDIALLY INVITED