



**Theoretical Statistics and Mathematics Unit, Kolkata**  
**INDIAN STATISTICAL INSTITUTE**

**SEMINAR**

Date: January 13, 2025

Time: 04:00 PM

**VENUE:**

**L- infinity**

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

**TITLE:**

**Unified framework for inference using confidence sets for the CDF**

**SPEAKER:**

**Siddhaarth Sarkar**

Carnegie Mellon University, USA

**ABSTRACT:**

*Traditional statistical inference methods often face limitations due to their reliance on strict assumptions. Moreover, these methods are typically tailored to specific assumptions, restricting their adaptability to any alternative set of assumptions. A unified framework is presented for deriving confidence intervals for various functionals (e.g., mean or median) under a broad class of user-specified assumptions (e.g., finite variance or tail behavior). Leveraging confidence sets for cumulative distribution functions (CDFs), this framework offers a principled and flexible inference strategy, reducing dependence on stringent assumptions and providing applicability in diverse contexts.*

**ALL ARE CORDIALLY INVITED**