



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

**SEMINAR**

**Date: December 26, 2025**

**Time: 04:15 PM**

**VENUE:**

**L- Infinity**

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

**TITLE:**

**Patterned matrices with random walk entries**

**SPEAKER:**

**Pradeep Vishwakarma**

Stat-Math Unit, ISI Kolkata

**ABSTRACT:**

*In this talk, I will discuss the convergence of certain patterned random matrices with random walk entries. For a particular choice of link function, we provide an algebraic approximation of free Brownian motion (FBM) in a finite-dimensional sense. I will discuss a random time-changed variant of the FBM and obtain an approximation of it using a patterned matrix with randomly stopped walk entries. Moreover, a weak approximation of the standard Brownian motion and a time-changed variant of it, using circulant matrices with random walk entries, will be established.*

**ALL ARE CORDIALLY INVITED**