INDIAN STATISTICAL INSTITUTE

Theoretical Statistics and Mathematics Unit, Kolkata

LECTURE

Date: June 15, 2023, Thursday
Time: 04:15 PM

VENUE:

L-1

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

TITLE:

Spectral Norm of Wigner Matrices

SPEAKER:

Himasish Talukdar

Stat-Math Unit, ISI Kolkata

ABSTRACT:

In this talk we give a combinatorial proof of the well known Füredi-Komlós Theorem. Consider a symmetric random matrix A with the upper triangular entries independent and uniformly bounded . Let the entries have mean zero and variance σ^2 . The theorem states that there exists a constant c such that $\mathbb{P}[\lambda(A)\leq2 \sigma \sqrt{n}+cn^{1/3}log\, n] \rightarrow 1$ as $n\rightarrow \infty$ where $\lambda (A)$ is the largest eigenvalue of A. This talk is based on a paper by Van H. Vu published in 2007.

ALL ARE CORDIALLY INVITED