

TEMPLE UNIVERSITY MATHEMATICS COLLOQUIUM

Mark Rudelson

University of Michigan

will speak on

Non-Asymptotic Approach in Random Matrix Theory

ABSTRACT: Random matrix theory studies the asymptotics of the spectral distributions of families of random matrices, as the sizes of the matrices tend to infinity. Derivation such asymptotics frequently requires analyzing the spectral properties of random matrices of a large fixed size, especially of their singular values. We will discuss several recent results in this area concerning matrices with independent entries, as well as random unitary and orthogonal perturbations of a fixed matrix. We will also show an application of the non-asymptotic random matrix theory to estimating the permanent of a deterministic matrix.

MONDAY, SEPTEMBER 22

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3:40 PM

ROOM 617, WACHMAN HALL

DEPARTMENT OF MATHEMATICS