

Department Colloquium

Speaker: Subhroshenkar Ghosh, Princeton University

Date: Wednesday, January 20

Time: 3:30 p.m.

Place: Jeffery 422

Title: Rigidity phenomena in random point sets

Abstract: In several naturally occurring (infinite) random point processes, we establish that the number of the points inside a bounded domain can be determined, almost surely, by the point configuration outside the domain. This includes key examples coming from random matrices and random polynomials. We further explore other random processes where such "rigidity" extends to a number of moments of the mass distribution. The talk will focus on particle systems with such curious "rigidity" phenomena, and their implications. We will also talk about applications to natural questions in stochastic geometry and harmonic analysis.