Probability Seminar

Title: Bulk Universality for Non-Hermitian Wigner-type Matrices

Speaker: Anna Maltsev (Queen Mary University of London)

Date: Mon 30th March 2026 at 2:00PM

Location: (See abstract)

Abstract: In this talk I will discuss universality the k-point of correlation function for Non-Hermitian Wigner-type Matrices, which are NxN matrices with centred, independent and identically distributed entries. I will discuss our new results for complex-valued matrices, established via universality of matrices with a small Gaussian component. We prove that the bulk correlation functions are universal in the large N limit using Householder transformations, supersymmetry, and Laplace method. Assuming the entries have finite moments and are supported on at least three points, the Gaussian component is removed by the four moment theorem. I will then give an overview of recent work in the field that substantially extends these results. This is based on joint work with Mohammed Osman.

Location: S1.67, Science Centre South