Probability Seminar

Title: Random matrices, Young diagrams, and trees

Speaker: Elia Bisi (University of Florence)

Date: Wed 11th September 2024 at 2:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: We consider 'λ-shaped random matrices', whose entries are i.i.d. in the boxes of a given Young diagram and zero elsewhere. In particular, we study their limiting spectral distribution when the shape λ is dilated by a growing factor N. The moments of such a distribution are a generalisation of Catalan numbers, and enumerate a combinatorial object which we call λ-plane trees: these are trees whose vertices are labelled in a way that is 'compatible' with λ. Based on joint work with Fabio D. Cunden.