Analysis Seminar

Title: Universal Spectral Limits for Hermitian Brownian Motion

Speaker: Martin Venker (DCU)

Date: Tue 14th November 2023 at 3:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: n this talk I will demonstrate how probability theory can be used to study large Hermitian matrices for generic spectral properties. More precisely, we will consider the eigenvalues of a Brownian Motion in the space of nxn Hermitian matrices, which is one of the most natural ways to explore the matrix space at random. We will see that this generates useful analytic structures which allow to obtain eigenvalue asymptotics in the limit of large matrix size. I will show that only a few universal limits can appear, and present transitions between these limits.

This talk is based on joint work with Thorsten Neuschel (DCU)

https://ucd-ie.zoom.us/j/69304811509 .

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