

On the eigenvalues of Hermitian Brownian motion in critical situations

05.12**Thorsten Neuschel***(Universität Bielefeld, Germany)***Time:** Tuesday 23.07., 12:00 - 12:30, Room HS 3

Abstract: We study the local behavior of the eigenvalues of Hermitian Brownian motion for large dimensions. These random eigenvalues form a determinantal point process for which in non-critical situations it is known that the local correlations show sine-kernel universality in the bulk of the spectrum. In this talk we focus on certain critical situations depending on the behavior of the initial configuration and show that the (multi-time) correlations exhibit Airy- or Pearcey-kernel universality.

The results presented are based on joint work with Tom Claeys and Martin Venker and they are part of a project which is still in progress.