

AG Zufallsmatrizen

Seminar

Yacin Ameur
Lund University

The Random Normal Matrix Model: Insertion of a Point Charge

We study conditional two-dimensional log-gases in the determinantal case, given that there is a point charge in the interior of the support of the equilibrium measure (the "droplet"). On a microscopic level, we obtain near the inserted charge a family of universal point-fields, depending on the strength of the charge and so on, which are characterized by special entire functions – Mittag-Leffler functions. The charge also affects the microscopic behaviour near the boundary of the droplet, where it gives rise to a kind of balayage operation. One motivation for studying this kind of conditional point-processes is that they are closely related to the characteristic polynomial of a random normal matrix – an object of interest for field theories and multiplicative chaos. The talk is based on joint work with Kang and Seo.

Wednesday, 27.06.2018, 16:15 Uhr
V3-201