Prof. dr. Pierre van Moerbeke

Title: Universality in tiling models

Abstract: We consider the domino tilings of a large class of Aztec rectangles. For an appropriate scaling limit, we show that, the disordered region consists of roughly two arctic circles connected with a finite number of paths. The statistics of these paths is governed by a kernel, also found in other models (universality). The kernel thus obtained is believed to be a master kernel, from which the kernels, associated with critical points, can all be derived.