

FIM

Nachdiplomvorlesung

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Random two-dimensional geometries

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Wednesdays, 14:45 - 16:45

HG G 19.2, ETH Zürich, Rämistrasse 101

Abstract

There have been some very important efforts in the recent years to understand certain canonical models of two-dimensional random geometries, whose inspiration came from theoretical physics in the years 80-90. These are defined either as continuum limits of discrete models (random maps) or purely continuum objects defined in terms of conformally invariant processes (Gaussian free field, SLE). In these lectures, we will review the perspective on scaling limits of random maps, discuss the various ways to encode them based on their combinatorics, and describe some of the (many) natural continuum random structures that arise from these models.

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