FIM Nachdiplomvorlesung

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An Introduction to Conformal Loop Ensembles

October 3 - December 12, 2012 Wednesdays 14.15 - 16.00h HG G 19.1, ETH Zürich, Rämistrasse 101

Abstract

This course will be a self-contained introduction to Conformal Loop Ensembles. These are natural random collections of loops in a domain; their study is very closely related to a number of (if not all) questions involving randomness and conformal invariance.

Along the way, we will define and study some properties of:

- Planar Brownian paths, excursions and loops,
- Schramm-Loewner Evolutions (SLE),
- The Gaussian Free Field,
- and relations between all these items.

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