

**Theoriekolloquium**

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Am **17.06.2010** um **14.15 Uhr** in **W2 1-143** hält

**Herr Prof. Dr. Heiko Rieger (Uni Saarbrücken)**

einen Vortrag mit dem Titel

**Geometry of domain walls in disordered 2d systems**

Domain walls in disordered systems like spin glasses or random manifolds play an important role in understanding the stability of the ordered phase, the energetics of large scale excitations, the asymptotic dynamics in and out of equilibrium as well as the sensitivity to changes of external parameters. Using exact combinatorial optimization algorithms we study domain walls and chaos at zero temperature in the solid-on-solid (SOS) model on a disordered substrate, which is a numerically convenient representation of a 2d random elastic medium. We focus on three questions: 1) are domain walls in this model described by Schramm-Loewner evolution (SLE), 2) what is the relation between size and energy of optimal excitations (droplets), 3) does disorder chaos exist in the ground state? and compare the results with the corresponding findings for 2d spin glasses.

Interessierte sind herzlich eingeladen.

gez. Prof. Dr. Alexander Hartmann