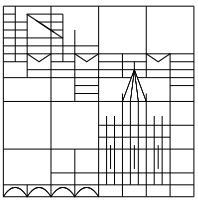
Universität Konstanz

Fachbereich
Mathematik und Statistik



Prof. Dr. Robert Denk
Prof. Dr. Heinrich Freistühler
Prof. Dr. Reinhard Racke
Prof. Dr. Oliver Schnürer

Im

Oberseminar Partielle Differentialgleichungen

gibt es am

Donnerstag, dem 19. Dezember 2013,

einen Vortrag von

Dr. Melanie Rupflin

(Universität Leipzig)

"Teichmüller harmonic map flow"

Beginn: **15:15 Uhr**

Raum: **F 426**

Interessenten sind herzlich willkommen!

R. Denk, H. Freistühler, R. Racke, O. Schnürer

Abstract: Teichmüller harmonic map flow is designed to evolve maps from a closed surface to a general target manifold towards (branched) minimal immersions. Defined as gradient flow of energy considered as a function of both a map and a metric on the domain, the flow enjoys the strong regularity properties known from harmonic map heat flow for as long as there is no degeneration in Teichmüller space but at the same time tries to make the map not only harmonic but also conformal and thus minimal. In this talk we will discuss the definition and properties of the flow and show in particular that global solutions, guaranteed to exist in certain settings, change (or decompose) arbitrary initial data into (a union of) branched minimal immersions, possibly parametrized over surfaces of lower genus. This is joint work with Peter Topping.

(invited by Oliver Schnürer)