MATHEMATIKKOLLOQUIUM

Das Institut für Informatik lädt zu folgendem Vortrag ein:

Dr. Antonio Leitão
University of Santa Catarina, Brazil

"On level set regularization methods for denoising of binary images"

In this talk we investigate regularization methods of level set type for the inverse problem of denoising of binary images, which is a fundamental problem in image analysis.
Our first approach is based on the level set regularization strategy proposed in (Fruehauf, Scherzer, AL 2005).
We adapt the analysis in this article to our particular denoising problem and prove well-posedness, stability and convergence results of the corresponding Tikhonov functionals.

A second approach based on a modification of the Rudin-Osher-Fatemi (ROF) model is also investigated. We propose a relaxation of the ROF functional, originally defined on the space of binary BV functions, obtaining a Tikhonov functional defined on our main goal is to obtain a relation between the minima of the relaxed functional and the original ROF functional.
The quality of the proposed method is demonstrated by solving the benchmark binary image denoising problem in (Burger, Hintermüller, 2005).

Zeit: **Dienstag, 27. Februar 2007 um 17:15 Uhr**

Ort: **Viktor-Franz-Hess-Haus, Technikerstraße 25, HS D**

Otmar Scherzer

Gäste sind herzlich willkommen!