

# MATH 6390 Topics in Mathematics: Math Methods in Image Analysis

Fall 2009, MW 8:30-9:45pm, FN 2.106

Instructor: Yan Cao

For graduate students interested in interdisciplinary topics. This course provides an introduction to some of the main mathematical techniques used for image analysis. Topics include stochastic approaches based upon Gibbs/Markov random fields and Bayesian inference theory, variational methods incorporating various geometric regularities, linear or nonlinear partial differential equations. These methods will be applied in image filtering, segmentation and registration.

Image Denoising



Image Segmentation

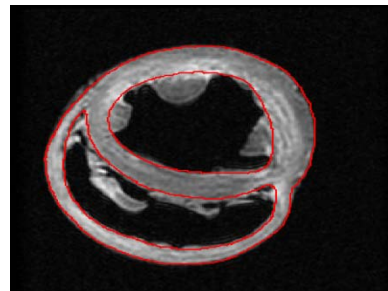


Image Registration

