May 11, 2:00 pm Seminar on Image Analysis (abstract)

Patrick Guidotti, University of California, Irvine
The Perona-Malik Equation (PME) and Some Recent Regularizations
Room 230

Abstract: This talk will focus on two novel well-posed regularizations of the classical anisotropic diffusion of Perona and Malik. One delivers a classically (locally) well-posed evolution with non-trivial dynamics due to the existence of non-trivial equilibria, the other preserves the forward-backward nature of PME but yields a global semi-flow of weak Young measure valued solutions and offers some insight into the staircasing phenomenon known from numerical implementations of PME. A connection between PME and the TV flow will also be established.