

1114-35-175

Patrick Guidotti* (gpatrick@math.uci.edu), 340 Rowland Hall, Department of Mathematics, Irvine, CA 92697. *Nonlinear Diffusions Inspired by Image Processing*.

This talk will focus on the analysis of certain nonlinear diffusions originally inspired by the well-known Perona-Malik equation of Image Processing which have proven useful in providing an understanding of the numerical behavior exhibited by solutions of the mathematically ill-posed Perona-Malik model(a nonlinear forward-backward diffusion) and mathematically well-posed replacements for it which preserve its cherished features and mitigate its known short-comings. (Received August 25, 2015)