

Meeting: 1003, Atlanta, Georgia, BERTOZZI, AMS-MAA Invited Address

1003-35-17 **Andrea L. Bertozzi***, Department of Mathematics, UCLA, Los Angeles, CA 90095. *Processing images with nonlinear PDEs.*

Processing images with nonlinear PDEs themselves to solution by nonlinear partial differential equations. We review some of the now classical methods in this area and show some novel new methods in which physics-based models play a role. Some specific problems include denoising, segmentation, and image ‘inpainting’ which involves filling behind occluding objects. (Received April 08, 2004)