

Friday May 11, 3:30 pm  
Seminar on Image Analysis  
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*Multiscale Image Representations through Integro-Differential Equations*

Abstract: In this talk we will discuss various anisotropic PDEs methods for applications to image processing. We will then discuss integro-differential equations inspired from  $(BV, L^2)$  and  $(BV, L^1)$  decompositions. Although, the original motivation came from a variational approach, the resulting IDEs can be extended using standard techniques from PDE-based image processing. We use filtering, edge preserving and tangential smoothing to yield a family of modified IDE models with applications to image denoising and image deblurring problems.