BIL 717 - Image Processing, Spring 2014

Dr. Erkut Erdem

READING LIST

Nonlinear Diffusion Filtering

• J. Weickert, Coherence-enhancing diffusion of colour images, Image and Vision Computing, 1999
• T. Brox et al., Nonlinear structure tensors, Image and Vision Computing, 2006

Variational Segmentation Models


Image Smoothing

• Farbman et al., Edge-preserving decompositions for multi-scale tone and detail manipulation, ACM Trans. Graph., 2008
• Subr et al., Edge-preserving multiscale image decomposition based on local extrema, ACM Trans. Graph., 2009
• K. He et al., Guided Image Filtering, In Proc. ECCV, 2010
• L. Pizarro et al., Generalised Nonlocal Image Smoothing, Int. Journal Comp. Vis., 2010
• Farbman et al., Diffusion maps for edge-aware image editing, ACM Trans. Graph., 2010
• Xu et al., Structure extraction from texture via relative total variation, ACM Trans. Graph., 2012
• Zontak et al., Separating signal from noise using patch recurrence across scales, In Proc. CVPR, 2013

Image Deblurring

• A. Levin et al., Understanding and evaluating blind deconvolution algorithms, In Proc. CVPR, 2009
• S. Cho and S. Lee, Fast motion deblurring, ACM Trans. Graph., 2009
• O. Whyte et al., Non-uniform deblurring for shaken images, In Proc. CVPR, 2010
• A. Levin et al., Efficient marginal likelihood optimization in blind deconvolution, In Proc. CVPR, 2011
• T. S. Cho et al., Blur kernel estimation using the radon transform, In Proc. CVPR 2011
• L. Xu et al., Unnatural L0 Sparse Representation for Natural Image Deblurring, In Proc. CVPR, 2013
• Y HaCohen et al., Deblurring by Example using Dense Correspondence, In Proc. ICCV, 2013

Image Segmentation

Sparse Coding
• J. Yang et al., Image super-resolution as sparse representation of raw image patches, In Proc. CVPR, 2008
• H. Ji et al., Robust video denoising using low rank matrix completion, In Proc. CVPR, 2010

Graphical Models
• C. Rother et al., Co-segmentation of Image Pairs by Histogram Matching - Incorporating a Global Constraint into MRFs, In Proc. CVPR, 2006
• D. Kuettel and V. Ferrari, Figure-ground segmentation by transferring window masks, In Proc. CVPR, 2012

Semantic Segmentation
• M. Rubinstein et al., Annotation Propagation in Large Image Databases via Dense Image Correspondence, In Proc. ECCV, 2012

Visual Saliency
• T. Judd et al., Learning to predict where humans look, In Proc. ICCV, 2009
• H. Seo and P. Milanfar, Static and space-time visual saliency detection by self-resemblance, Journal of Vision, 2009
• S. Goferman et al., Context-aware saliency detection, In Proc. CVPR, 2010