

Table of Contents – Part V

Spotlights and Posters W2

Towards Computational Models of the Visual Aesthetic Appeal of Consumer Videos	1
<i>Anush K. Moorthy, Pere Obrador, and Nuria Oliver</i>	
Object Recognition Using Junctions	15
<i>Bo Wang, Xiang Bai, Xinggang Wang, Wenyu Liu, and Zhuowen Tu</i>	
Using Partial Edge Contour Matches for Efficient Object Category Localization	29
<i>Hayko Riemenschneider, Michael Donoser, and Horst Bischof</i>	
Active Mask Hierarchies for Object Detection	43
<i>Yuanhao Chen, Long (Leo) Zhu, and Alan Yuille</i>	
From a Set of Shapes to Object Discovery	57
<i>Nadia Payet and Sinisa Todorovic</i>	
What Does Classifying More Than 10,000 Image Categories Tell Us? ...	71
<i>Jia Deng, Alexander C. Berg, Kai Li, and Li Fei-Fei</i>	
Modeling and Analysis of Dynamic Behaviors of Web Image Collections	85
<i>Gunhee Kim, Eric P. Xing, and Antonio Torralba</i>	
Non-local Characterization of Scenery Images: Statistics, 3D Reasoning, and a Generative Model	99
<i>Tamar Avraham and Michael Lindenbaum</i>	
Efficient Highly Over-Complete Sparse Coding Using a Mixture Model	113
<i>Jianchao Yang, Kai Yu, and Thomas S. Huang</i>	
Attribute-Based Transfer Learning for Object Categorization with Zero/One Training Example	127
<i>Xiaodong Yu and Yiannis Aloimonos</i>	
Image Classification Using Super-Vector Coding of Local Image Descriptors	141
<i>Xi Zhou, Kai Yu, Tong Zhang, and Thomas S. Huang</i>	
A Discriminative Latent Model of Object Classes and Attributes	155
<i>Yang Wang and Greg Mori</i>	

Seeing People in Social Context: Recognizing People and Social Relationships	169
<i>Gang Wang, Andrew Gallagher, Jiebo Luo, and David Forsyth</i>	
Discovering Multipart Appearance Models from Captioned Images	183
<i>Michael Jamieson, Yulia Eskin, Afsaneh Fazly, Suzanne Stevenson, and Sven Dickinson</i>	
Voting by Grouping Dependent Parts	197
<i>Pradeep Yarlagadda, Antonio Monroy, and Björn Ommer</i>	
Superpixels and Supervoxels in an Energy Optimization Framework	211
<i>Olga Veksler, Yuri Boykov, and Paria Mehrani</i>	

Segmentation

Convex Relaxation for Multilabel Problems with Product Label Spaces	225
<i>Bastian Goldluecke and Daniel Cremers</i>	
Graph Cut Based Inference with Co-occurrence Statistics	239
<i>Lubor Ladicky, Chris Russell, Pushmeet Kohli, and Philip H.S. Torr</i>	
Ambrosio-Tortorelli Segmentation of Stochastic Images	254
<i>Torben Pätz and Tobias Preusser</i>	
Multiple Hypothesis Video Segmentation from Superpixel Flows	268
<i>Amelio Vazquez-Reina, Shai Avidan, Hanspeter Pfister, and Eric Miller</i>	
Object Segmentation by Long Term Analysis of Point Trajectories	282
<i>Thomas Brox and Jitendra Malik</i>	

Spotlights and Posters R1

Exploiting Repetitive Object Patterns for Model Compression and Completion	296
<i>Luciano Spinello, Rudolph Triebel, Dizan Vasquez, Kai O. Arras, and Roland Siegwart</i>	
Feature Tracking for Wide-Baseline Image Retrieval	310
<i>Ameesh Makadia</i>	
Crowd Detection with a Multiview Sampler	324
<i>Weina Ge and Robert T. Collins</i>	
A Unified Contour-Pixel Model for Figure-Ground Segmentation	338
<i>Ben Packer, Stephen Gould, and Daphne Koller</i>	

SuperParsing: Scalable Nonparametric Image Parsing with Superpixels	352
<i>Joseph Tighe and Svetlana Lazebnik</i>	
Segmenting Salient Objects from Images and Videos	366
<i>Esa Rahtu, Juho Kannala, Mikko Salo, and Janne Heikkilä</i>	
ClassCut for Unsupervised Class Segmentation	380
<i>Bogdan Alexe, Thomas Deselaers, and Vittorio Ferrari</i>	
A Dynamic Programming Approach to Reconstructing Building Interiors	394
<i>Alex Flint, Christopher Mei, David Murray, and Ian Reid</i>	
Discriminative Mixture-of-Templates for Viewpoint Classification	408
<i>Chunhui Gu and Xiaofeng Ren</i>	
Efficient Non-consecutive Feature Tracking for Structure-from-Motion	422
<i>Guofeng Zhang, Zilong Dong, Jiaya Jia, Tien-Tsin Wong, and Hujun Bao</i>	
<i>P2H</i> : A Minimal Solution for Registration of 3D Points to 3D Planes	436
<i>Srikumar Ramalingam, Yuichi Taguchi, Tim K. Marks, and Oncel Tuzel</i>	
Boosting Chamfer Matching by Learning Chamfer Distance Normalization	450
<i>Tianyang Ma, Xingwei Yang, and Longin Jan Latecki</i>	
Geometry Construction from Caustic Images	464
<i>Manuel Finckh, Holger Dammertz, and Hendrik P.A. Lensch</i>	
Archive Film Restoration Based on Spatiotemporal Random Walks	478
<i>Xiaosong Wang and Majid Mirmehdi</i>	
Reweight Random Walks for Graph Matching	492
<i>Minsu Cho, Jungmin Lee, and Kyoung Mu Lee</i>	
Rotation Invariant Non-rigid Shape Matching in Cluttered Scenes	506
<i>Wei Lian and Lei Zhang</i>	
Loosely Distinctive Features for Robust Surface Alignment	519
<i>Andrea Albarelli, Emanuele Rodolà, and Andrea Torsello</i>	
Accelerated Hypothesis Generation for Multi-structure Robust Fitting	533
<i>Tat-Jun Chin, Jin Yu, and David Suter</i>	

Aligning Spatio-Temporal Signals on a Special Manifold	547
<i>Ruonan Li and Rama Chellappa</i>	
Supervised Label Transfer for Semantic Segmentation of Street Scenes	561
<i>Honghui Zhang, Jianxiong Xiao, and Long Quan</i>	
Category Independent Object Proposals	575
<i>Ian Endres and Derek Hoiem</i>	
Photo-Consistent Planar Patches from Unstructured Cloud of Points ...	589
<i>Roberto Toldo and Andrea Fusiello</i>	
Contour Grouping and Abstraction Using Simple Part Models	603
<i>Pablo Sala and Sven Dickinson</i>	
Dynamic Color Flow: A Motion-Adaptive Color Model for Object Segmentation in Video	617
<i>Xue Bai, Jue Wang, and Guillermo Sapiro</i>	
What Is the Chance of Happening: A New Way to Predict Where People Look	631
<i>Yezhou Yang, Mingli Song, Na Li, Jiajun Bu, and Chun Chen</i>	
Supervised and Unsupervised Clustering with Probabilistic Shift	644
<i>Sanketh Shetty and Narendra Ahuja</i>	
Depth-Encoded Hough Voting for Joint Object Detection and Shape Recovery	658
<i>Min Sun, Gary Bradski, Bing-Xin Xu, and Silvio Savarese</i>	
Shape Analysis of Planar Objects with Arbitrary Topologies Using Conformal Geometry	672
<i>Lok Ming Lui, Wei Zeng, Shing-Tung Yau, and Xianfeng Gu</i>	
A Coarse-to-Fine Taxonomy of Constellations for Fast Multi-class Object Detection	687
<i>Sanja Fidler, Marko Boben, and Aleš Leonardis</i>	
Object Classification Using Heterogeneous Co-occurrence Features	701
<i>Satoshi Ito and Susumu Kubota</i>	
Converting Level Set Gradients to Shape Gradients	715
<i>Siqi Chen, Guillaume Charpiat, and Richard J. Radke</i>	
A Close-Form Iterative Algorithm for Depth Inferring from a Single Image	729
<i>Yang Cao, Yan Xia, and Zengfu Wang</i>	

Learning Shape Segmentation Using Constrained Spectral Clustering and Probabilistic Label Transfer	743
<i>Avinash Sharma, Etienne von Lavante, and Radu Horaud</i>	
Weakly Supervised Shape Based Object Detection with Particle Filter	757
<i>Xingwei Yang and Longin Jan Latecki</i>	
Geodesic Shape Retrieval via Optimal Mass Transport	771
<i>Julien Rabin, Gabriel Peyré, and Laurent D. Cohen</i>	
Spotlights and Posters R2	
Image Segmentation with Topic Random Field	785
<i>Bin Zhao, Li Fei-Fei, and Eric P. Xing</i>	
Author Index	799