

June 29th 2004

8:10 – 10:00 Welcome and Plenary Session

Azriel Rosenfeld: In memoriam

Thomas Huang

Steven Zucker

Plenary Talks

Stuart Geman

Terry Sejnowski

10:00 – 10:30 Coffee Break

10:30 – 12:00 Poster Session 1 Calibration /stereo

Restoration of Curved Document Images through 3D Shape Modeling

Z. Zhang, C.L. Tan and L. Y. Fan

Wide-Baseline Feature Matching Using the Cross-Epipolar Ordering Constraint

X. Lu and R. Manduchi

Fast Wide Baseline Matching for Visual Navigation

T. Goedeme, T. Tuytelaars and L. Van Gool .

Algebraic Solution for the Visual Hull

M. Brand and K. Kang.

Shedding Light on Stereoscopic Segmentation

H. Jin, D. Cremers, A. Yezzi and S. Soatto

Perspective Shape-from-Shading by Fast Marching

A. Tankus, N. Sochen and Y. Yeshurun.

Spherical Harmonics vs. Haar Wavelets: Basis for Recovering Illumination from Cast Shadows

T. Okabe, I. Sato, and Y. Sato

Auto calibration and 3D Reconstruction with Non-central Catadioptric Cameras

B. Micusik and T. Pajdla

Window-based Discontinuity Preserving Stereo

M. Agrawal and L. Davis.

Segment-based Stereo Matching using Graph Cuts

L. Hong and G. Chen

Bayesian Assembly of 3D Axially Symmetric Shapes from Fragments

A. Willis and D. Cooper

Multiview Occlusion Analysis for Tracking Densely Populated Objects Based on 2-D Visual Angles

K. Otsuka and N. Mukawa

Difference Sphere: An Approach to Near Light Source Estimation

T. Takai, K. Niinuma, A. Maki and T. Matsuyama

Region-Based Progressive Stereo Matching

Y. Wei and L. Quan

Multi-resolution Correlation of Horizons across Normal Faults in 3D Seismic Data

F. Admasu and K. Toennies

Space-Time Video Completion

Y. Wexler, E. Shechtman and M. Irani

Uncalibrated and Unsynchronized Human Motion Capture: A Stereo Factorization Approach

P. Tresadern and I. Reid

A Correlation-Based Model Prior for Stereo

Y. Tsin and T. Kanade

Shape Correspondence through Landmark Sliding

S. Wang, T. Kubota and T. Richardson

Camera Calibration from a Single Night Sky Image

A. Klaus, P. Elbischger, R. Perko, J. Bauer, K. Karner and H. Bischof

Self Shadowing and Local Illumination of Randomly Rough Surfaces

Y. Sun

Radiometric Calibration of a Helmholtz Stereo Rig

Z. Janko, O. Drbohlav and R. Sara

A Variational Approach to Problems in Calibration of Multiple Cameras

G. Unal and A. Yezzi

Estimating Illumination Direction from Textured Images

M. Varma and A. Zisserman

Simultaneous Calibration and Tracking with a Network of Non-Overlapping Sensors

A. Rahimi, B. Dunagan and T. Darrell

Camera Network Calibration from Dynamic Silhouettes

S. N. Sinha, M. Pollefeys and L. McMillan

Atlanta-World: An Expectation-Maximization Framework for Simultaneous Low-level Edge Grouping and Camera Calibration in Complex Man-Made Environments

G. Schindler and F. Dellaert

12:00 – 1:00 Lunch

1:00 – 2:30 Poster Session 2 Low Level Vision

Capturing Image Structure with Probabilistic Index Maps

N. Jojic and Y. Caspi

Fast Contour Matching Using Approximate Earth Mover's Distance

K. Grauman and T. Darrell

An Affine Invariant Tensor Dissimilarity Measure and its Application to Tensor-valued Image Segmentation

Z. Wang and B. C. Vemuri

Color Alignment in Texture Mapping of Images under Point Light Source and General Lighting condition

H. Unten and K. Ikeuchi

Geometric and Shading Correction of Imaged Printed Materials: A Unified Approach Using Boundary

M. Brown and D. Tsoi

Segmentation Using Multiscale Cues

S. Yu

A Multi-Classifer Framework for Atlas-Based Image Segmentation

T. Rohlfing and C.R. Maurer, Jr.

Accurate Face Models from Uncalibrated and Ill-Lit Video Sequences

M. Dimitrijevic, S. Ilic and P. Fua

Efficient Belief Propagation for Early Vision
P. Felzenszwalb and D. Huttenlocher

Extracting Semantic Information Through Illumination Classification
A. Aner-Wolf

Super-Resolution Through Neighbor Embedding
H. Chang, D.Y. Yeung and Y. Xiong

Joint Feature-basis Subset Selection
S. Avidan

From Fragments to Salient Closed Boundaries: An In-Depth Study
S. Wang, J. Wang and T. Kubota

Wavelet-Based Hierarchical Surface Approximation from Height Fields
S.M. Lee, L. Abbott and D. Schmoldt

Separating Reflections from a Single Image using Local Features
A. Levin, A. Zomet and Y. Weiss

Joint Prior Models of Neighboring Objects for 3D Image Segmentation
J. Yang and J. Duncan

Perceptual Organization of Circular Symmetry
Q. Yang and B. Parvin

Similarity Measure and Learning with Gray Level Aura Matrices (GLAM) for Texture Image Retrieval
X. Qin and Y.H. Yang

3D Models Coding and Morphing for Efficient Video Compression
F. Galpin, R. Balter, L. Morin and K. Deguchi

The SPS Algorithm: Patching Figural Continuity and Transparency by Split-Patch Search
A. Criminisi and A. Blake

Space-time Isosurface Evolution for Temporally Coherent 3D Reconstruction
B. Goldluecke and M. Magnor

Estimation of Blood Flow Velocity and Vessel from Thermal Video
M. Garbey, A. Merla and I. Pavlidis

Video Repairing: Inference of Foreground and Background Under Severe Occlusion
J. Jia, T.P. Wu, Y.W. Tai and C.K. Tang

Hybrid Textons: Integrating Appearance and Geometry for Surface Modeling
K. Dana and J. Wang

Robust Color Object Detection using Spatial-Color Joint Probability Functions
D. Crandall and J. Luo

Shape Constrained Image Segmentation by Parametric Distributional Clustering
T. Zoeller and J.M. Buhmann

Globally Optimal Segmentation of Interacting Surfaces with Geometric Constraints
K. Li, X. Wu, D. Chen and M. Sonka

Recovering Shape and Irradiance Maps from Rich Dense Texton Fields
D. Forsyth and A. Lobay

Bayesian Video Matting using Learnt Image Priors
N. Apostoloff and A. Fitzgibbon

A Segmentation-Free Approach for Skeletonization of Gray-Scale Images via Anisotropic Vector Diffusion
Z. Yu and C. Bajaj

Tracking Loose-limbed People
L. Sigal, S. Bhatia, S. Roth, M. Black and M. Isard

Hyperspectral Texture Classification Using Generalized Markov Fields
S. Sarkar and G. Healey

2:30 – 3:00 Coffee Break

3:00 – 4:15 Session 1A Sensors

Programmable Imaging using a Digital Micromirror Array

S. Nayar, T. Boult and V. Branzoi

The World in an Eye

K. Nishino and S. Nayar

Making One Object Look Like Another: Controlling Appearance Using a Projector-Camera

M.D. Grossberg, H. Peri, S. Nayar and P. Belhumeur

Session 1B Low Level Vision - 1

Using Skew Gabor Filter in Source Signal Separation and Local Spectral Multi-Orientation Analysis

W. Yu, G. Sommer and K. Daniilidis

Grouping Dominant Orientations for Ill-Structured Road Following

C. Rasmussen

Separating Style and Content on a Nonlinear Manifold

A. Elgammal and C.S. Lee

4:20– 6:00 Session 2A Statistical Methods - 1

Video Data Mining using Configurations of Viewpoint Invariant Regions

J. Sivic and A. Zisserman

MetaMorphs: Deformable Shape and Texture Models

X. Huang, D. Metaxas and T. Chen

L-infinity Minimization

R. Hartley and F. Schaffalitzky

A New GPCA Algorithm for Clustering Subspaces by Fitting, Differentiating and Dividing Polynomials

R. Vidal, Y. Ma and J. Piazzi

Session 2B Detection and Tracking -1

Efficient Tracking with the Bounded Hough Transform

M. Greenspan, L. Shang and P. Jasiobedzki

Detection and Removal of Rain from Videos

K. Garg and S. Nayar

Clear Underwater Vision

Y.Y. Schechner and N. Karpel

Detection and Tracking of Objects in Underwater Video

D. Walther, D. R. Edgington and C. Koch

Evening Reception (all invited) in hotel followed by PAMI TC meeting

June 30th 2004

8:20 – 10:00 Session 3A Calibration/Stereo

Using Plane + Parallax for Calibrating Dense Camera Arrays

V. Vaish, B. Wilburn, N. Joshi and M. Levoy

Wide-baseline Stereo from Multiple Views: a Probabilistic Account

C. Strecha, R. Fransens, and L. Van Gool

A Minimal Solution to the Generalized 3-Point Pose Problem

D. Nister

Stereo Correspondence with Slanted Surfaces: Critical Implications of Horizontal Slant

A. Ogale and Y. Aloimonos

Session 3B Medical Applications

Tomographic Reconstruction of Piecewise Smooth Images

C.V. Alvino and A. J. Yezzi

Motion Without Correspondence from Tomographic Projections by Bayesian Inversion Theory

S.S. Brandt and V. Kolehmainen

Estimation, Smoothing, and Characterization of Apparent Diffusion Coefficient Profiles from High Angular Resolution DWI

Y. Chen, W. Guo, Q. Zeng, X. Yan, F. Huang, H. Zhang, G. He, B.C. Vemuri and Y. Liu

Scale Selection for Anisotropic Scale-Space: Application to Volumetric Tumor Characterization

K. Okada, D. Comaniciu and A. Krishnan

10:00 – 10:30 Coffee Break

10:30 – 12:00 Poster Session 3 Motion

Error Analysis for a Navigation Algorithm based on Optical-Flow and a Digital Terrain Map

R. Lerner, E. Rivlin and H. P. Rotstein

Visual Odometry and Map Correlation

A. Levin and R. Szeliski

Selecting Ghosts and Queues from a Car Trackers Output Using a Spatio-Temporal Query Language

C. Köhler

Video Stabilization as a Variational Problem and Numerical Solution with the Viterbi Method

M. Pilu

A Variational Approach to Scene Reconstruction and Image Segmentation from Motion-Blur Cues

P. Favaro and S. Soatto

Incremental Density Approximation and Kernel-Based Bayesian Filtering for Object Tracking

B. Han, D. Comaniciu, Y. Zhu and L. Davis

Radiometric Alignment of Image Sequences

S. J. Kim and M. Pollefeys

Visual Odometry
D. Nister , O. Naroditsky and J. Bergen

Dynamic Geodesic Snakes for Visual Tracking
M. Niethammer and A. Tannenbaum

Non-Rigid Shape and Motion Recovery: Degenerate Deformations
J. Xiao and T. Kanade

Pointwise Motion Tracking in Echocardiographic Images
W. Yu, P. Yan, A. Sinusas, K. Thiele and J. Duncan

Lie-Algebraic Averaging For Globally Consistent Motion Estimation
V. M. Govindu

High Resolution Video Mosaicing with Global Alignment
R. Marzotto, A. Fusiello and V. Murino

Augmenting Images of Non-Rigid Scenes Using Point and Curve Correspondences
A. Bartoli, E. V. Tunzelmann and A. Zisserman

Multibody Factorization with Uncertainty and Missing Data Using the EM Algorithm
A. Gruber and Y. Weiss

Probabilistic Parameter-Free Motion Detection
T. Veit, F. Cao and P. Bouthemy

A Unified Spatio-Temporal Articulated Model for Tracking
X. Lan and D. Huttenlocher

Role of Shape and Kinematics in Human Movement Analysis
A. Veeraraghavan, A. Roy Chowdhury and R. Chellappa

Optimizing Motion Estimation with Linear Programming and Detail-Preserving Variational Method
H. Jiang , Z.N. Li and M.S. Drew

Large-Scale Convolutional HMMs for Real-Time Video Tracking
J. Movellan, J. Hershey and J. Susskind

Linear Sequence-to-Sequence Alignment
R. L. Carceroni, F.L.C. Padua, G.A.M.R. Santos and K. N. Kutulakos

Motion Estimation by Swendsen-Wang Cuts
A. Barbu and A. Yuille

Synchronizing Video Sequences
T. Tuytelaars and L. Van Gool

The Multibody Trifocal Tensor: Motion Segmentation from 3 Perspective Views
R. Vidal and R. Hartley

Multibody Motion Segmentation Based on Simulated Annealing
Z. Fan, J. Zhou and Y. Wu

Visual Tracking using Learned Subspaces
J. Ho, K.C. Lee, M.H. Yang and D. Kriegman

Multiple Kernel Tracking with SSD
G. Hager, M. Dewan and C. Stewart

An EM-like Algorithm for Color-Histogram-Based Object Tracking
Z. Zivkovic and B. Krose

Covariance-Driven Mosaic Formation from Sparsely-Overlapping Image Sets with Application to Retinal Image Mosaicing
G. Yang and C. Stewart

Model-based Motion Clustering using Boosted Mixture Modeling
V. Pavlovic

Reconstructing 3D Independent Motions Using Non-accidentalness
K.E. Ozden, K. Cornelis, L. Van Eycken and L. Van Gool

Multi-scale Visual Tracking by Sequential Belief Propagation
G. Hua and Y. Wu

Collaborative Tracking of Multiple Targets
T. Yu and Y. Wu

Registration of Diffusion Tensor Images
H. Zhang, P.A. Yushkevich and J. C Gee

Affine Image Registration Using a New Information Metric
J. Zhang and A. Rangarajan

Modeling Complex Motion by Tracking and Editing Hidden Markov Graphs
Y. Wang and S.C. Zhu

An Algorithm for Multiple Object Trajectory Tracking
M. Han, W. Xu, H. Tao and Y. Gong

A Unified Framework for Uncertainty Propagation in Automatic Shape Tracking
X. S. Zhou, D. Comaniciu, B. Xie R. Cruceanu and A. Gupta

3D Facial Tracking from Corrupted Movie Sequences
S. Goldenstein, C. Vogler and D. Metaxas

Gibbs Likelihoods for Bayesian Tracking
S. Roth, L. Sigal and M.J. Black

Articulated Models from Video
N. Krahnstoever and R. Sharma

12:00 – 1:00 Lunch

1:00 – 2:30 Poster Session 4 Object Recognition and Sensors

Automatic View Recognition in Echocardiogram Videos Using Parts-Based Representation
S. Ebadollahi, S.F. Chang, H. Wu

Elastic-String Models for Representation and Analysis of Planar Shapes
W. Mio and A. Srivastava

View Independent Human Body Pose Estimation from a Single Perspective Image
V. Parameswaran and R. Chellappa

Distortion Estimation Techniques in Solving Visual CAPTCHAs
G. Moy, C. Harkless, N. Jones and R. Potter

Feature-Centric Evaluation for Efficient Cascaded Object Detection
H. Schneiderman

Is Attention Useful for Object Recognition?
U. Rutishauser, D. Walther, C. Koch, and P. Perona

Cyclic Articulated Human Motion Tracking by Sequential Ancestral Simulation
C. Chang, R. Ansari and A. Khokhar

Learning Object Detection from a Small Number of Examples: the Importance of Good Features.
K. Levi and Y. Weiss

Shape Representation and Classification Using the Poisson Equation
L. Gorelick, M. Galun, E. Sharon, R. Basri and A. Brandt

Models of Large Population Recognition Performance
P. Grother and J. Phillips

Searching the Web with Mobile Images for Location Recognition

T. Yeh, T. Darrell and K. Tollmar
Parts-based 3D Object Classification
D. Huber, A. Kapuria, R. Donamukkala and M. Hebert
Scale-invariant Shape Features for Recognition of Object Categories
F. Jurie and C. Schmid
Learning Methods for Generic Object Recognition with Invariance to Pose and Lighting.
Y. LeCun, L. Bottou, F.J. Huang
Integrating Multiple Model Views for Object Recognition
V. Ferrari, T. Tuytelaars, L. Van Gool
Extraction and Integration of Windows in a 3D Building Model from Ground View Images
S.C. Lee and R. Nevatia
Linear Model Hashing and Batch RANSAC for Rapid and Accurate Object Recognition
Y. Shan, B. Matei, H. Sawhney, R. Kumar, D. Huber and M. Hebert
A Model for Dynamic Shape and Its Applications
C.B. Liu and N. Ahuja
Jitter Camera: High Resolution Video from a Low Resolution Detector
M. Ben-Ezra, S.K. Nayar and A. Zomet
The Method of Vector Fields for Catadioptric Sensor Design with Applications to
Panoramic Imaging
R.A. Hicks and R. Perline
High-Zoom Video Hallucination by Exploiting Spatio-Temporal Regularities
G. Dedeoglu, T. Kanade and J. August
Eye Typing off the Shelf
D.W. Hansen and A. Pece
A Flexible Projector-Camera System for Multi-Planar Displays
M. Ashdown, M. Flagg, R. Sukthankar and J. Rehg
Probability Models for High Dynamic Range Imaging
C. Pal, N. Jojic, R. Szeliski and M. Uyttendaele
Improving Object Classification in Far-Field Video
B. Bose and E. Grimson
Brightness Perception, Dynamic Range and Noise: A Unifying Model for Adaptive Image
Sensors
V. Brajovic
Uncontrolled Modulation Imaging
Y.Y. Schechner and S.K. Nayar
Bridging the Gaps Between Cameras
D. Makris, T. Ellis and M. J. Black
3D Head Tracking Based on Recognition and Interpolation Using a Time-Of-Flight Depth
Sensor
S.B. Göktürk and C. Tomasi
Calibrating an Air Ground Control System from Motion Correspondences
C. Taylor, V.G.K. Kumar and R. Rao
Recovering Shape and Reflectance Model of Non-Lambertian Objects from Multiple Views
T. Yu, N. Xu and N. Ahuja
A Method for Computing Depth Under Ambient Illumination using Multi-shuttered Light
J. Davis and H. Gonzalez-Banos

2:30 – 3:00 Coffee Break

3:00 – 4:15 Sessions 4A Statistical Methods -2

Point Matching as a Classification Problem for Fast and Robust Object Pose Estimation

V. Lepetit, J. Pilet and P. Fua

Feature Selection for Classifying High-Dimensional Numerical Data

Y. Wu and A. Zhang

Random Sampling LDA for Face Recognition

X. Wang and X. Tang

Sessions 4B Learning

BoostMap: A Method for Efficient Approximate Similarity Rankings

V. Athitsos, J. Alon, S. Sclaroff and G. Kollios

Automatic Cascade Training with Perturbation Bias

J. Sun, J. Rehg, and A. Bobick

A Discriminative Learning Framework with Pairwise Constraints for Video Object Classification

R. Yan, J. Zhang, J. Yang and A.G. Hauptmann

4:20 – 6:00 Sessions 5A Motion – 1

High-Speed Videography Using a Dense Camera Array

B. Wilburn, N. Joshi, V. Vaish, M. Levoy and M. Horowitz

Motion-Based Background Subtraction using Adaptive Kernel Density Estimation

A. Mittal and N. Paragios

Multiframe Motion Segmentation with Missing Data by Power Factorization and Generalized PCA

R. Vidal and R. Hartley

An Unsupervised, Online Learning Framework for Moving Object Detection

V. Nair and J. Clark

Sessions 5B Object Recognition

Recovering Human Body Configurations: Combining Segmentation and Recognition

G. Mori, X. Ren, A. Efros and J. Malik

Proposal Maps Driven MCMC for Estimating Human Body Pose in Static Images

M.W. Lee and I. Cohen

Representation and Matching of Articulated Shapes

J. Zhang, R. Collins and Y. Liu

2D-Shape Analysis using Conformal Mapping

E. Sharon and D. Mumford

Evening banquet in the hotel, open only to full registrants (not students)

July 1st 2004

8:20 – 10:00 Sessions 6A Applications - 1

Faster Graph-theoretic Image Processing via Small-world and Quadtree Topologies

L. Grady and E. Schwartz

Detecting and Reading Text in Natural Scenes

X. Chen and A. Yuille

Bayesian Face Recognition Using Support Vector Machine and Face Clustering

Z. Li and X. Tang

How Features of the Human Face Effect Recognition: a Statistical Comparison of Three Face Recognition Algorithms

G. Givens, J. R. Beveridge, B. A. Draper, P. Grother and P.J. Phillips

Sessions 6B Detection Tracking- 2

Novel Region-based Modeling for Human Detection within Highly Dynamic Aquatic Environment

H.L. Eng, J. Wang, A.H. Kam and W.Y. Yau

Fast, Integrated Person Tracking and Activity Recognition with Plan-View Templates from a Single Stereo Camera

M. Harville and D. Li

Tracking Multiple Humans in Crowded Environment

T. Zhao and R. Nevatia

Efficient Model-based Linear Head Motion Recovery from Movies

Y. Jian and C. Wai-Kuen

10:00 – 10:30 Coffee Break

10:30 – 12:00 Poster Session 5 Statistical Methods

Multiobjective Data Clustering

M. H. C. Law, A.P. Topchy and A. K. Jain

An Invariant, Closed-form Solution for Matching Sets of 3D Lines

B. Kamgar-Parsi and B. Kamgar-Parsi

Spatially Coherent Clustering Using Graph Cuts

R. Zabih and V. Kolmogorov

A Probabilistic Framework for Combining Tracking Algorithms

I. Leichter, M. Lindenbaum and E. Rivlin

Local Smoothing for Manifold Learning

J.H. Park, Z. Zhang, H. Zha and R. Kasturi

Grouping with Bias Revisited

R. Nock and F. Nielsen

Graphical Models for Graph Matching

T. Caetano, T. Caelli and D. Barone

Linear Projection Methods in Face Recognition under Unconstrained Illuminations: A Comparative Study

Q. Li, J. Ye and C. Kambhamettu

Towards Robust Structure-Based Enhancement and Horizon Picking in 3-D Seismic Data

S.M. O'Malley and I.A. Kakadiaris

Object-Based Image Retrieval Using the Statistical Structure of Images

D. Hoiem, R. Sukthankar, H. Schneiderman and L. Huston

Generalized Quotient Image

H. Wang, S.Z. Li and W. Yangsheng

PCA-SIFT: A More Distinctive Representation for Local Image Descriptors
Y. Ke and R. Sukthankar

Biventricular Myocardial Kinematics Based on Tagged MRI From Volumetric NURBS Models
N. Tustison and A. Amini

Probabilistic Expression Analysis on Manifolds
Y. Chang, C. Hu and M. Turk

Invariant Operators, Small Samples, and the Bias-Variance Dilemma
X. Shi and R. Manduchi

Real-Time Combined 2D+3D Active Appearance Models
J. Xiao, S. Baker, I. Matthews and T. Kanade

On the Distribution of Saliency
A. Berengolts and M. Lindenbaum

Approximation of Canonical Sets and their Application to 2D View Simplification
L. Denton, J. Abrahamson and A. Shokoufandeh

Learning Classifiers from Imbalanced Data Based on Biased Minimax Probability Machine
K. Huang, H. Yang, I. King and M.R. Lyu

Dual-Space Linear Discriminant Analysis for Face Recognition
X. Wang and X. Tang

Learning Distance Functions for Image Retrieval
T. Hertz, A. Bar-Hillel and D. Weinshall

Cue Integration through Discriminative Accumulation
M.E. Nilsback and B. Caputo

Orthogonal Complement Component Analysis for Positive Samples in SVM Based Relevance Feedback Image Retrieval
D. Tao and X. Tang

Robust Subspace Clustering by Combined Use of kNND Metric and SVD Algorithm
Q. Ke and T. Kanade

Direct Super-Resolution and Registration Using Raw CFA Images
T. Gotoh and M. Okutomi

Variational Mixture Smoothing for Non-Linear Dynamical Systems
C. Sminchisescu and A. Jepson

Self-Normalized Linear Tests
S. Gangaputra and D. Geman

Bayesian Fusion of Camera Metadata Cues in Semantic Scene Classification
M. Boutell and J. Luo

Minimum Effective Dimension for Mixtures of Subspaces: A Robust GPCA Algorithm and its Applications
Y. Ma, K. Huang and R. Vidal

Learning a Restricted Bayesian Network for Object Detection
H. Schneiderman

Random Sampling Based SVM for Relevance Feedback Image Retrieval
D. Tao and X. Tang

Reconstructing Open Surfaces from Unorganized Data Points
J.E. Solem and A. Heyden

Inference of Multiple Subspaces from High-Dimensional Data and Application to Multibody Grouping
Z. Fan, J. Zhou and Y. Wu

A Non-parametric Approach for Independent Component Analysis Using Kernel Density Estimation

K. Sengupta, P. Burman and R. Sharma

Efficient Graphical Models for Processing Images

M. Tappen, W. Freeman and B. Russell

Inferring 3D Body Pose from Silhouettes using Activity Manifold Learning

A. Elgammal and C.S. Lee

A Fast Multigrid Implicit Algorithm for the Evolution of Geodesic Active Contours

P. Maragos and G. Papandreou

Multiscale Conditional Random Fields for Image Labelling

X. He, R. Zemel and M. Carreira-Perpinan

12:00 – 1:00 Lunch

1:00 – 2:30 Poster Session 6 Surveillance

Studies on Silhouette Quality and Gait Recognition

Z. Liu, L. Malave and S. Sarkar

Diffeomorphic Matching of Distributions: A New Algorithm for Point Sets and Sub-manifold Matching

L. Younes, J. Glaunes and A. Trounev

Face Localization via Hierarchical Condensation with Adaboost Feature selection

J. Tu, Z. Zhang, Z. Zeng and T. Huang

Shaping Receptive Fields for Affine Invariance

S. Ravela

Multigrid and Multi-level Swendsen-Wang Cuts for Hierarchic Graph Partition

A. Barbu and S.C. Zhu

A Graphical Model Framework for Coupling MRFs and Deformable Models

R. Huang, V. Pavlovic and D. Metaxas

Flexible Spatial Models for Grouping Local Image Features

G. Carneiro and A. Jepson

Asymmetrically Boosted HMM for Speech Reading

P. Yin, I. Essa and J. Rehg

Sharing Features: Efficient Boosting Procedure for Multiclass Object Detection

A. Torralba, K.P. Murphy and W.T. Freeman

Scalable Discriminant Feature Selection for Image Retrieval and Recognition

N. Vasconcelos and M. Vasconcelos

What image Information is Important in Silhouette-based Gait Recognition?

G. Veres, J. Carter, L. Gordon and M. Nixon

Modelling the Effects of Walking Speed on Appearance-based Gait Recognition

R. Tanawongsuwan and A. Bobick

Efficient Search for Faces from Complex Line Drawings

J. Liu and X. Tang

A Discriminative Feature Space for Detecting and Recognizing Faces

A. Hadid, M. Pietikäinen and T. Ahonen

Probabilistic Identity Characterization for Face Recognition

S.K. Zhou and R. Chellappa

Effect of Colorspace Transformation, the Illuminance Component, and Color Modeling on Skin Detection

J. Sriram, S. Schmugge, M. Shin and L. Tsap

Detecting Unusual Events in Video

H. Zhong, J. Shi and M. Visontai

A Cognitive Vision System for Action Recognition in Office Environments

C. Bauckhage, M. Hanheide, G. Sagerer and S. Wrede

CoreFaces: Robust Shift Invariant PCA based Correlation Filter for Illumination Tolerant Face Recognition

M. Savvides, B.V. K. Vijaya Kumar and P.K. Khosla

Statistical Feature Fusion for Gait-based Human Recognition

J. Han and B. Bhanu

Names and Faces in the News

T. L. Berg, A. C. Berg, J. Edwards, M. Maire, R. White, Y.W. Teh, E. Learned-Miller and D.A. Forsyth

A GMM Parts Based Face Representation for Improved Verification through Relevance Adaptation

S. Lucey and T. Chen

Propagation Networks for Recognition of Partially Ordered Sequential Action

Y. Shi, Y. Huang, D. Minnen A. Bobick, and I. Essa

Facial Event Classification with Task Oriented Dynamic Bayesian Network

H. Gu and Q. Ji

Probabilistic Data Association Methods for Visual Tracking of Groups

G. Gennari and G.D. Hager

3D Human Pose from Silhouettes by Relevance Vector Regression

A. Agarwal and B. Triggs

Local Facial Asymmetry for Expression Classification

S. Mitra and Y. Liu

Extraction and Recognition of Periodically Deforming Objects by Continuous, Spatio-temporal Shape Description

S. Mowbray and M. Nixon

Frame Synchronization and Multi-level Subspace Analysis for Video Based Face Recognition

X. Tang and Z. Li

Hierarchical Decision Making Scheme for Sports Video Categorisation with Temporal Post-Processing

E. Jaser, J. Kittler and W. Christmas

Segmenting, Modeling, and Matching Video Clips Containing Multiple Moving Objects

F. Rothganger, S. Lazebnik, C. Schmid and J. Ponce

From Facial Expression to Level of Interest: A Spatio-Temporal Approach

M. Yeasin, B. Bulot and R. Sharma

Integrating and Employing Multiple Levels of Zoom for Activity Recognition

P. Smith, N. Lobo and M. Shah

2:30 – 3:00 Coffee Break

3:00 – 4:15 Sessions 7A Low Level Vision - 2

Radiometric Calibration from a Single Image

S. Lin, J. Gu, S. Yamazaki and H.Y. Shum
Color Lines: Image Specific Color Representation
I. Omer and M. Werman
Learning to Segment Images Using Region-Based Perceptual Features
J. Kaufhold and A. Hoogs

Sessions 7B Motion -2

Alignment of Continuous Video onto 3D Point Clouds
W.Y. Zhao, D. Nister and S. Hsu
Motion Layer Extraction in the Presence of Occlusion using Graph Cut
J. Xiao and M. Shah
A Rao-Blackwellized Particle Filter for EigenTracking
Z. Khan, T. Balch and F. Dellaert

4:15 – 5:30 Sessions 8A Retrieval/Annotation

Unsupervised Learning of Image Manifolds by Semidefinite Programming
K. Weinberger and L. Saul
Hidden Semantic Concept Discovery in Region Based Image Retrieval
R. Zhang and Z. Zhang
Multiple Bernoulli Relevance Models for Image and Video Annotation
S. L. Feng, R. Manmatha and V. Lavrenko

Sessions 8B Applications -2

Thermal Face Recognition in an Operational Scenario
D. Socolinsky and A. Selinger
Audio-Visual based Emotion Recognition-A New Approach
M. Song, J. Bu, C. Chen and N. Li
Value Directed Learning of Gestures and Facial Displays
J. Hoey and J. J. Little