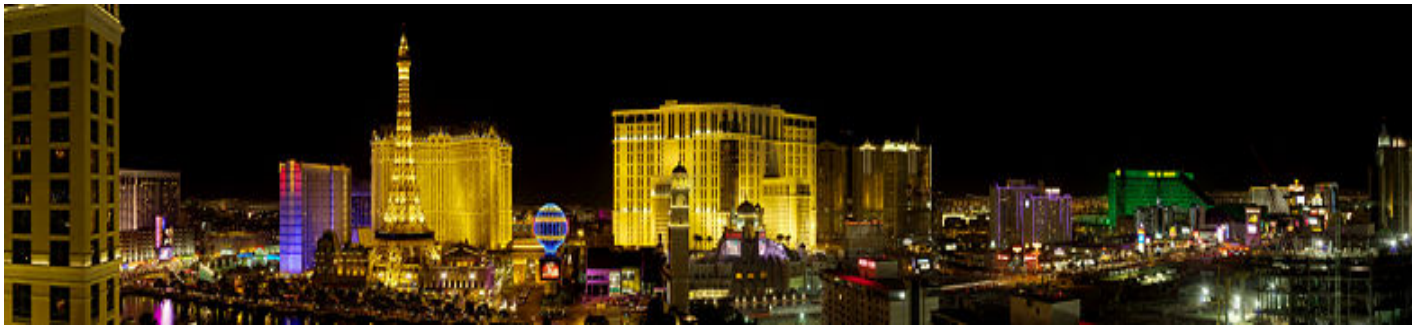
4th International Symposium on Visual Computing (ISVC08)
December 1-3, 2008, Las Vegas, Nevada, USA

Contents



Final Program
4th International Symposium on Visual Computing (ISVC08)
December 1-3, 2008, Las Vegas, Nevada, USA

Symposium Overview

	Monday 1st	Tuesday 2nd	Wednesday 3rd
07:00 am – 08:30 am	*Breakfast* (Ballroom 2-3)		
08:30 am – 9:30 am	**Keynote** *(Ballroom 4-5)*		
9:40 am – 10:40 am	**Parallel Sessions** (Ballroom 2, 3, 4-5, Gold Room)		
10:40 am – 11:10 am	*Coffee Break*		
11:10 am – 12:10 am	**Parallel Sessions** (Ballroom 2, 3, 4-5, Gold Room)		
12:10 pm – 1:30 pm	*Lunch Break* (on your own)		
1:30 pm – 2:30 pm	**Keynote** (Ballroom 4-5)	**Poster Session** * (Ballroom 4-5)	**Keynote** (Ballroom 4-5)
2:40 pm – 3:40 pm	**Parallel Sessions** (Ballroom 2, 3, 4-5, Gold Room)		
3:40 pm – 4:10 pm	*Coffee Break* **(4:10pm-4:40pm on Dec 2nd)**		
4:10 pm – 5:30 pm	**Parallel Sessions** (Ballroom 2, 3, 4-5, Gold Room) **(4:40pm – 6pm on Dec 2nd)**		

Registration Desk hours: Sunday Nov 30th: 5pm -9:30pm
Monday, Dec 1st – Wednesday, Dec 3rd: 7:30am – 5:30pm

Banquet Dinner: Tuesday, Dec 2nd: 7:00pm – 10:00pm (Ballroom 4-5)

*The poster session runs from 1:30pm to 3:30pm.

Monday, December 1st

7:00-8:30	*Breakfast* (Ballroom 2-3)		
8:30-9:30	*Keynote:* ***Ioannis Pavlidis***, **University of Houston, USA** (Ballroom 4-5)		
	Parallel Sessions		
9:40-12:10	**ST: Object Recognition** Chair: Andrea Salgian/Fabien Scalzo (Ballroom 4-5)		**Computer Graphics I** Chair: Jiří Žára (Ballroom 2)
	9:40	Detection of a Large Number of Overlapping Ellipses Immersed in Noise *Manuel Fernandes*	Cumulus Cloud Synthesis with Similarity Solution and Particle/Voxel Modeling *Bei Wang, Jingliang Peng, and C.-C. Jay Kuo*
	10:00	Recognizing ancient coins based on local features *Martin Kampel and Maia Zaharieva*	An Efficient Wavelet-Based Framework for Articulated Human Motion Compression *Chao-Hua Lee and Joan Lasenby*
	10:20	Learning Pairwise Dissimilarity Profiles for Appearance Recognition in Visual Surveillance *Zhe Lin and Larry S. Davis*	On Smooth Bicubic Surfaces from Quad Meshes *Jianhua Fan and Jorg Peters*
10:40-11:10	*Coffee Break*		
	11:10	Edge-based Template Matching and Tracking for Perspectively Distorted Planar Objects *Andreas Hofhauser, Carsten Steger and Nassir Navab*	Simple Steps for Simply Stepping *Chun-Chih Wu, Jose Medina and Victor B. Zordan*
	11:30	Enhancing Boundary Primitives using a Multiscale Quadtree Segmentation *Robert Bergevin and Vincent Bergeron*	Fairing of Discrete Surfaces with Boundary that Preserves Size and Qualitative Shape *Jana Kostliva, Radim Sara and Martina Matyskova*
	11:50	3D Object Modeling and Segmentation Based on Edge-Point Matching with Local Descriptors *Masahiro Tomono*	Fast Decimation Of Polygonal Models *Muhammad Hussain*
9:40-12:10	**Visualization I** Chair: Laura Monroe (Ballroom 3)		**ST: Real-time Vision Algorithm Implementation and Application** Chair: D. J. Lee (Gold Room)
	9:40	Visualizing Argument Structure *Peter Sbarski, Tim van Gelder, Kim Marriott, Daniel Prager, and Andy Bulka*	Vision-based localization for mobile robots using a set of known views *Pablo Frank Bolton, Montserrat Alvarado, Wendy Aguilar and Yann Frauel*
	10:00	Visualization of Industrial Structures with Implicit GPU Primitives *Rodrigo Toledo and Bruno Levy*	On the advantages of asynchronous pixel reading and processing for high-speed motion estimation *Fernando Pardo and Jose A. Boluda and Francisco Vegara and Pedro Zuccarello*
	10:20	Cartesian vs. Radial -- A Comparative Evaluation of Two Visualization Tools *Michael Burch, Felix Bott, Fabian Beck and Stephan Diehl*	An Optimized Software-based Implementation of a Census-based Stereo Matching Algorithm *Christian Zinner, Martin Humenberger, Kristian Ambrosch and Wilfried Kubinger*
10:40-11:10	*Coffee Break*		
	11:10	VoxelBars: An Informative Interface for Volume Visualization *Wai-Ho Mak, Ming-Yuen Chan, Yingcai Wu, Ka-Kei Chung and Huamin Qu*	Mutual Information based Semi-Global Stereo Matching on the GPU *Ines Ernst and Heiko Hirschmuller*
	11:30	Wind Field Retrieval and Display for Doppler Radar Data *Shyh-Kuang Ueng and Yu-Chong Chiang*	Accurate Optical Flow Sensor for Obstacle Avoidance *Zhaoyi Wei, Dah-Jye Lee, Brent E. Nelson and Kirt D. Lillywhite*
	11:50	Dual Marching Tetrahedra: Contouring in the Tetrahedronal Environment *Gregory M. Nielson*	A Novel 2D Marker Design and Application in Object Tracking and Event Detection *Xu Liu, David Doermann, Huiping Li, K. C. Lee, Hasan Ozdemir and Lipin Liu*
12:10-1:30	*Lunch* (on your own)		

1:30-2:30	*Keynote:* ***Gerard Medioni***, **University of Southern California, USA** (Ballroom 4-5)		
	Parallel Sessions		
2:40-5:30	**Segmentation** Chair: Yoshninori Kuno (Ballroom 4-5)		**Shape/Recognition I** Chairs: Frederic Chausse (Ballroom 2)
	2:40	Automatic Lung Segmentation of Volumetric Low-Dose CT Scans Using Graph Cuts *Asem M. Ali and Aly A. Farag*	A Fast and Effective Dichotomy Based Hash Algorithm for Image Matching *Zhoucan He and Qing Wang*
	3:00	A continuous labeling for multiphase graph cut image partitioning *Mohamed Ben Salah, Amar Mitiche and Ismail Ben Ayed*	Evaluation of Gradient Vector Flow for Interest Point Detection *Julian Stottinger, Rene Donner, Lech Szumilas and Allan Hanbury*
	3:20	A Graph-based Method for Image Segmentation *Thang V. Le, Casimir A. Kulikowski and Ilya B. Muchnik*	Spatially Enhanced Bags of Words for 3D Shape Retrieval *Xiaolan Li, Afzal Godil and Asim Wagan*
3:40-4:10	*Coffee Break*		
	4:10	Active Contours Driven by Supervised Binary Classifiers for Texture Segmentation *Julien Olivier, Romuald Bone, Jean-Jacques Rousselle and Hubert Cardot*	Image Matching Using High Dynamic Range Images and Radial Feature Descriptors *Krishnaprasad Jagadish and Eric Sinzinger*
	4:30	Proximity Graphs Based Multi-Scale Image Segmentation *Alexei N. Skurikhin*	Random Subwindows for Robust Peak Recognition in Intracranial Pressure Signals *Fabien Scalzo, Peng Xu, Marvin Bergsneider and Xiao Hu*
	4:50	Improved Adaptive Spatial Information Clustering for Image Segmentation *Zhi Min Wang, Qing Song, Yeng Chai Soh and Kang Sim*	A New Shape Benchmark for 3D Object Retrieval *Rui Fang, Afzal Godil, Xiaolan Li and Asim Wagan*
	5:10	Stable Image Descriptions using Gestalt Principles *Yi-Zhe Song and Peter M. Hall*	Shape Extraction through Region-Contour Stitching *Elena Bernardis and Jianbo Shi*
2:40-5:30	**Face/Gesture** Chair: Ara Nefian (Ballroom 3)		**Virtual Reality I** Chair: Muhammad Hussain (Gold Room)
	2:40	Face recognition Based on Normalization and the Phase Spectrum of the Local Part of an Image *Jesus Olivares-Mercado, Kazuhiro Hotta, Haruhisa Takahashi, Hector Perez-Meana, Mariko Nakano Miyatake and Gabriel Sanchez-Perez*	The Benefits of Co-located Collaboration and Immersion on Assembly Modeling in Virtual Environments *David d'Angelo, Gerold Wesche, Maxim Foursa and Manfred Bogen*
	3:00	A Novel Shape Registration Framework and Its Application to 3D Face Recognition in the Presence of Expressions *Rachid Fahmi and Aly A. Farag*	Simple feedforward control for responsive motion capture-driven simulations *Rubens F. Nunes, Creto A. Vidal, Joaquim B. Cavalcante-Neto and Victor B. Zordan*
	3:20	Frontal Face Recognition from Video *Angshul Majumdar and Panos Nasiopoulos*	Marker less Vision-Based Tracking of Partially Known 3D Scenes for Outdoor Augmented Reality Applications *Fakhreddine Ababsa, Jean-Yves Didier, Imane Zendjebil and Malik Mallem*
3:40-4:10	*Coffee Break*		
	4:10	Real Time Hand Based Robot Control Using 2D/3D Images *Seyed Eghbal Ghobadi, Omar Edmond Loepprich, Farid Ahmadov, Jens Bernshausen, Klaus Hartmann and Otmar Loeld*	Multiple Camera, Multiple Person Tracking with Pointing Gesture Recognition in Immersive Environments *Anuraag Sridhar and Arcot Sowmya*
	4:30	Facial Trait Code and its Applications to Face Recognition *Ping-Han Lee and Gee-Sern Hsu and Tsuhan Chen and Yi-Ping Hung*	Augmented Reality Using Projective Invariant Patterns *Lucas Teixeira, Manuel Loaiza, Alberto Raposo and Marcelo Gattass*
	4:50	Using Multiple Masks to Improve End-to-End Face Recognition Performance *Christopher A. Neylan and Andrea Salgian*	Acquisition of High Quality Planar Patch Features *Harald Wuest, Folker Wientapper and Didier Stricker*
	5:10	Sparse Representation for Ear Biometrics *Imran Naseem, Roberto Togneri and Mohammed Bennamoun*	

Tuesday, December 2nd

7:00-8:30	*Breakfast* (Ballroom 2-3)		
8:30-9:30	*Keynote:* **Kelly Gaither**, **University of Texas at Austin, USA** (Ballroom 4-5)		
	Parallel Sessions		
9:40-12:10	**ST: Computational Bioimaging and Visualization** Chairs: João Manuel R. S. Tavares (Ballroom 4-5)		**Computer Graphics II** Chair: Tim McGraw (Ballroom 2)
	9:40	Level Set Segmentation of Cellular Images based on Topological Dependence *Weimiao Yu, Hwee Kuan Lee, Srivats Hariharan, Wenyu Bu and Sohail Ahmed*	GPU-Supported Image Compression for Remote Visualization - Realization and Benchmarking *Stefan Lietsch and Paul Hermann Lensing*
	10:00	A Novel Algorithm for Automatic Brain Structure Segmentation from MRI *Qing He, Kevin Karsch and Ye Duan*	Efficient Schemes for Monte Carlo Markov Chain Algorithms in Global Illumination *Yu-Chi Lai, Feng Liu, Li Zhang, and Charles Dyer*
	10:20	Brain Lesion Segmentation through Physical Model Estimation *Marcel Prastawa and Guido Gerig*	Adaptive CPU Scheduling to Conserve Energy in Real-Time Mobile Graphics Applications *Fan Wu, Emmanuel Agu and Clifford Lindsay*
10:40-11:10	*Coffee Break*		
	11:10	Calibration of Bi-planar Radiography with a Rangefinder and a Small Calibration Object *Daniel C. Moura, Jorge G. Barbosa, Joao Manuel R. S. Tavares and Ana M. Reis*	A Quick 3D-to-2D Points Matching based on the Perspective Projection *Songxiang Gu, Clifford Lindsay, Michael A. Gennert and Michael A. King*
	11:30	Identification of Cell Nucleus using a Mumford-Shah Ellipse Detector *Choon Kong Yap and Hwee Kuan Lee*	Deformation-based Animation of Snake Locomotion *Yeongho Seol and Junyong Noh*
	11:50	Evaluation of Brain MRI Alignment with the Robust Hausdor Distance Measures *Andriy Fedorov, Eric Billet, Marcel Prastawa, Guido Gerig, Alireza Radmanesh, Simon K. Warfield, Ron Kikinis and Nikos Chrisochoides*	User Driven Two-Dimensional Computer-Generated Ornamentation *Dustin Anderson and Zoe Wood*
9:40-12:10	**ST: Discrete and Computational Geometry and their Applications in Visual Computing I** Chair: Valentin E. Brimkov (Ballroom 3)		**ST: Soft Computing in Image Processing and Computer Vision** Chair: Gerald Schaefer (Gold Room)
	9:40	Linear Time Constant-Working Space Algorithm for Computing the Genus of a Digital Object *Valentin E. Brimkov and Reneta P. Barneva*	Iris Recognition: A Method To Segment Visible Wavelength Iris Images Acquired On-The-Move and At-A-Distance *Hugo Proenca*
	10:00	Offset Approach to Defining 3D Digital Lines *Valentin E. Brimkov, Reneta P. Barneva, Boris Brimkov and Fran çois de Vieilleville*	3D Textural Mapping and Soft-Computing Applied to Cork Quality Inspection *Beatriz Paniagua, Miguel A. Vega-Rodríguez, Mike Chantler, Juan A. Gómez-Pulido and Juan M. Sánchez-Pérez*
	10:20	Curvature and torsion estimators for 3D curves *Thanh Phuong Nguyen and Isabelle Debled-Rennesson*	Analysis of breast thermograms based on statistical image features and hybrid fuzzy classification *Gerald Schaefer, Tomoharu Nakashima and Michal Zavisek*
10:40-11:10	*Coffee Break*		
	11:10	Threshold selection for segmentation of dense objects in tomograms *W. van Aarle, K. J. Batenburg and J. Sijbers*	Efficient Facial Feature Detection Using Entropy and SVM *Qiong Wang, Chunxia Zhao and Jingyu Yang*
	11:30	Comparison of Discrete Curvature Estimators and Application to Corner Detection *B. Kerautret, J.-O Lachaud and B. Naegel*	Type-2 Fuzzy Mixture of Gaussians Model: Application to Background Modeling *Fida El Baf, Thierry Bouwmans and Bertrand Vachon*
	11:50	Computing and Visualizing Constant-Curvature Metrics on Hyperbolic 3-Manifolds with Boundaries *Xiaotian Yin, Miao Jin, Feng Luo and Xianfeng David Gu*	Unsupervised Clustering Algorithm for Video Shots using Spectral Division *Lin Zhong, Chao Li, Huan Li, and Zhang Xiong*
12:10-1:30	*Lunch* (on your own)		

1:30-3:30	**Poster Session** (Ballroom 4-5)		
	Parallel Sessions		
3:30-6:00	**Reconstruction/Attentional Vision** Chair: Paolo Remagnino (Ballroom 4-5)		**ST: Visualization and Simulation on Immersive Display Devices** Chair: Daniel Coming (Ballroom 2)
	3:30	Noise Analysis of a SFS Algorithm Formulated Under Various Imaging Conditions *Amal A. Farag, Shireen Y. Elhabian, Abdelrehim H. Ahmed and Aly A. Farag*	Immersive 3d Visualizations for Software-Design Prototyping and Inspection *Anthony Savidis, Panagiotis Papadakos and George Zargianakis*
	3:50	Shape from Texture via Fourier Analysis *Fabio Galasso and Joan Lasenby*	VR visualisation as an interdisciplinary collaborative data exploration tool for large eddy simulations of bio-sphere-atmosphere interactions *Gil Bohrer, Marcos Longo, David J Zielinski and Rachael Brady*
4:10-4:40	*Coffee Break*		
	4:40	Full Camera Calibration from a Single View of Planar Scene *Yisong Cheny, Horace Ipz, Zhangjin Huangy and Guoping Wang*	User Experience of Hurricane Visualization in an Immersive 3D Environment *J. Sanyal, P. Amburn, S. Zhang, J. Dyer, P. J. Fitzpatrick and R. J. Moorhead*
	5:00	Robust Two-view External Calibration by Combining Lines and Scale Invariant Point features *Xiaolong Zhang, Jin Zhou and Baoxin Li*	Immersive Visualization and Analysis of LiDAR Data *Oliver Kreylos, Gerald W. Bawden and Louise H. Kellogg*
	5:20	Stabilizing Stereo Correspondence Computation Using Delaunay Triangulation and Planar Homography *Chao-I Chen, Dusty Sargent, Chang-Ming Tsai, Yuan-Fang Wang and Dan Koppel*	Environment-Independent VR Development *Oliver Kreylos*
	5:40	Progressive focussing: a top down attentional vision system *Roland Chapuis, Frederic Chausse, and Noel Trujillo Bennamoun*	Enclosed Five-Wall Immersive Cabin *Feng Qiu, Bin Zhang, Kaloian Petkov, Lance Chong, Arie Kaufman, Klaus Mueller and Xianfeng David Gu*
	6:00		Panel Discussion: Jian Chen, Patrick O'Leary and Alfred Inselberg
3:30-6:00	**ST: Discrete and Computational Geometry and their Applications in Visual Computing II** Chair: Reneta P. Barneva (Ballroom 3)		**Virtual Reality II** Chair: Thomas Wischgoll (Gold Room)
	3:30	Combined Registration Methods for Pose Estimation *Dong Han, Bodo Rosenhahn, Joachim Weickert, and Hans-Peter Seidel*	OmniMap: Projective Perspective Mapping API for Non-planar Immersive Display Surfaces *Clement Shimizu, Jim Terhorst and David McConville*
	3:50	Local non-planarity of three dimensional surfaces for an invertible reconstruction: k-cuspal cells. *Marc Rodrıguez, Gaelle Largeteau-Skapin, Eric Andres*	Two-handed and one-handed techniques for precise and efficient manipulation in immersive virtual environments *Noritaka Osawa*
4:10-4:40	*Coffee Break*		
	4:40	A New Variant of the Optimum-Path Forest Classifier *Joao P. Papa and Alexandre X. Falcao*	VR Spray Painting for Training and Design *Jonathan Konieczny, Gary Meyer, Clement Shimizu, John Heckman, Mark Manyen and Marty Rabens*
	5:00	Results on Hexagonal Tile Rewriting Grammars *D.G. Thomas, F. Sweety and T. Kalyani*	Using Augmented Reality and interactive simulations to realize hybrid prototypes *Florian Niebling, Rita Griesser and Uwe Woessner*
	5:20	Lloyd's Algorithm on GPU *Cristina N. Vasconcelos, Asla Sa, Paulo Cezar Carvalho, Marcelo Gattass*	Immersive Simulator for Fluvial Combat Training *Diego A. Hincapie Ossa, Sergio A. Ordonez Medina, Carlos Francisco Rodrıguez and Jose Tiberio Hernandez*
	5:40	Computing Fundamental Group of General 3-manifold *Junho Kim, Miao Jin, Qian-Yi Zhou, Feng Luo, and Xianfeng Gu*	A Low-cost, Linux-based Virtual Environment for Visualizing Vascular Structures *Thomas Wischgoll*
7:00-10:00	*Banquet Dinner* (Ballroom 4-5) *Keynote:* **J.K. Aggarwal, University of Texas at Austin, USA**		

Wednesday, December 3rd

7:00-8:30	*Breakfast* (Ballroom 2-3)		
8:30-9:30	*Keynote:* **Arie Kaufman**, **Stony Brook University, USA** (Ballroom 4-5)		
	Parallel Sessions		
9:40-12:10	**ST: Analysis and Visualization of Biomedical Visual Data** Chair: Eric Grimson (Ballroom 4-5)		**Computer Graphics III** Chair: Shuhua Lai (Ballroom 2)
	9:40	Visualization of dynamic connectivity in high electrode-density EEG *Alfonso Alba and Edgar Arce-Santana*	Tracking Data Structures Coherency in Animated Ray Tracing: Kalman and Wiener Filters Approach *Sajid Hussain and Håkan Grahn*
	10:00	A New Parallel Approach to Fuzzy Clustering for Medical Image Segmentation *Huynh Van Luong and Jong Myon Kim*	Hardware Accelerated Per-Texel Ambient Occlusion Mapping *Tim McGraw and Brian Sowers*
	10:20	Intuitive Visualization and Querying of Cell Motion *Richard Souvenir, Jerrod P. Kraftchick and Min C. Shin*	Comic Stylization from Photograph *Catherine Sauvaget and Vincent Boyer*
10:40-11:10	*Coffee Break*		
	11:10	Registration of 2D Histological Images of Bone Implants with 3DμCT Volumes *Hamid Sarve, Joakim Lindblad, and Carina B. Johansson*	Leaking Fluids *Kiwon Um and JungHyun Han*
	11:30	Measuring an animal body temperature in thermographic video using particle filter tracking *Atousa Torabi, Guillaume-Alexandre Bilodeau, Maxime Levesque, J.M. Pierre Langlois, Pablo Lema and Lionel Carmant*	Automatic Structure-Aware Inpainting for Complex Image Content *Patrick Ndjiki-Nya, Martin Köppel, Dimitar Doshkov, and Thomas Wiegand*
	11:50	Generation of Unit-width curve skeletons based on Valence Driven Spatial Median (VDSM) *Tao Wang and Irene Cheng*	Multiple Aligned Characteristic Curves for Surface Fairing *Janick Martinez Esturo, Christian Rössl and Holger Theisel*
9:40-12:10	**Visualization II** Chair: Tim Dwyer (Ballroom 3)		**ST: Image Analysis for Remote Sensing Data** Chair: Jose Malpica ((Gold Room)
	9:40	SUNVIZ: A Real-time Visualization Environment for Space Physics Applications *S. Eliuk, P. Boulanger, K. Kabin*	Identification of Oceanic Eddies in Satellite Images *Armando Manuel Fernandes*
	10:00	An Efficient Quality-based Camera Path Planning Method for Volume Exploration *Ming-Yuen Chan, Wai-Ho Mak, Huamin Qu*	Multi-image fusion in remote sensing: spatial Enhancement vs. Spectral Characteristics Preservation *Manfred Ehlers*
	10:20	A fast and simple heuristic for metro map path simplification *Tim Dwyer, Nathan Hurst, and Damian Merrick*	Classification of multispectral high-resolution satellite imagery using LIDAR elevation data *María C. Alonso and José A. Malpica*
10:40-11:10	*Coffee Break*		
	11:10	Visual Verification of Hypothesis *Thorsten May, Joern Kohlhammer*	Semi-supervised Edge Learning for Building Detection in Aerial Images *Fenglei Yang, Ye Duan and Yue Lu*
	11:30	LDR-LLE: LLE with low-dimensional neighborhood representation *Yair Goldberg and Yaacov Ritov*	High resolution satellite classification with graph cut algorithms *Adrian A. López and José A. Malpica*
	11:50	SudokuVis - How to Explore Relationships of Mutual Exclusion *Gudrun Klinker*	Satellite Image Segmentation Using Wavelet Transforms Based on Color and Texture Features *Ricardo Dutra da Silva, Rodrigo Minetto William Robson Schwartz and Helio Pedrini*
12:10-1:30	*Lunch* (on your own)		

1:30-2:30	*Keynote:* **Eric Grimson**, **Massachusetts Institute of Technology, USA** (Ballroom 4-5)		
	Parallel Sessions		
2:40-5:30	**Shape/Recognition II** Chair: Alexei Skurikhin (Ballroom 4-5)		**Motion and Tracking** Chair: Mircea Nicolescu (Ballroom 2)
	2:40	A System for Rapid Interactive Training of Object Detectors *Nathaniel Roman and Robert Pless*	Combining Line and Point Correspondences for Homography Estimation *Elan Dubrofsky and Robert J. Woodham*
	3:00	An Integrated Method for Multiple Object Detection and Localization *Dipankar Das, Al Mansur, Yoshinori Kobayashi, and Yoshinori Kuno*	Integration of Local Image Cues for Probabilistic 2D Pose Recovery *Paul Kuo, Dimitrios Makris, Najla Megherbi, Jean-Christophe Nebel*
	3:20	A Context Dependent Distance Measure for Shape Clustering *Rolf Lakaemper, JingTing Zeng*	Indirect Tracking to Reduce Occlusion Problems *Peter Keitler, Michael Schlegel, and Gudrun Klinker*
3:40-4:10	*Coffee Break*		
	4:10	A New Accumulator-based Approach to Shape Recognition *Karthik Krish and Wesley Snyder*	Real-time Lip Contour Extraction and Tracking using an Improved Active Contour Model *Jingying Chen Bernard Tiddeman Gang Zhao*
	4:30	Multi-dimensional Scale Saliency Feature Extraction Based on Entropic Graphs *P. Suau, F. Escolano*	Particle Filter Based Object Tracking with Discriminative Feature Extraction and Fusion *Yao Shen, Parthasarathy Guturu, Thyagaraju Damarla, and Bill P. Buckles*
	4:50	Merging Active Contours *Ismail Ben Ayed and Amar Mitiche*	A New Global Alignment Method for Feature Based Image Mosaicing *A. Elibol, R. Garcia, O. Delaunoy and N. Gracias*
	5:10	Contour Extraction using Particle Filters *ChengEn Lu and Longin Jan Latecki and Guangxi Zhu*	An Effective Active Vision System for Gaze Control *Yann Ducrocq, Shahram Bahrami Luc Duvieubourg, and Francois Cabestaing*
2:40-5:30	**Video Analysis and Event Recognition** Chair: George Bebis (Ballroom 3)		**Computer Vision Applications** Chair: Bahram Parvin (Gold Room)
	2:40	Difference of Gaussian Edge-Texture Based Background Modeling for Dynamic Traffic Conditions *Amit Satpathy, How-Lung Eng, and Xudong Jiang*	Image-Based Information Guide on Mobile Devices *Jimmy Addison Lee, Kin-Choong Yow, Andrzej Sluzek*
	3:00	A Sketch-Based Approach for Detecting Common Human Actions *Evan A. Suma, Christopher Walton Sinclair, Justin Babbs, and Richard Souvenir*	Estimating Atmospheric Visibility Using Networked Cameras *Ling Xie, Alex Chiu and Shawn Newsam*
	3:20	Multi-View Video Analysis of Humans and Vehicles in an Unconstrained Environment *D.M. Hanseny, P.T. Duizery, S. Parkz, T.B. Moeslundy, and M.M. Trivedi*	Numismatic object identification using fusion of shape and local descriptors *R. Huber-M¨ork, M. Zaharieva, and H. Czedik-Eysenberg*
3:40-4:10	*Coffee Break*		
	4:10	Self-Organizing Maps for the Automatic Interpretation of Crowd Dynamics *B.Zhan, P.Remagnino,N.Monekosso, S.A.Velastin*	Personalized News Video Recommendation via Interactive Exploration *Jianping Fan, Hangzai Luo, Aoying Zhou, and Daniel A. Keim*
	4:30	A Visual Tracking Framework for Intent Recognition in Videos *Alireza Tavakkoli, Richard Kelley, Christopher King, Mircea Nicolescu, Monica Nicolescu, George Bebis*	Browsing a Large Collection of Community Photos based on Similarity on GPU *Grant Strong and Minglun Gong*
	4:40	Unsupervised Video Shot Segmentation Using Global Color and Texture Information *Yuchou Chang, Dah-Jye Lee, Yi Hong, and James Archibald*	Security Analysis for Spread-Spectrum Watermarking Incorporating Statistics of Natural Images *Dong Zhang, Jiangqun Ni, and Dah-Jye Lee*
	5:10		Multi-view Feature Matching and Image Grouping from Multiple Unordered Wide-baseline Images *Xiuyuan Zeng, Heng Yang, Qing Wang*

Poster Session (Ballroom 4-5)

Tuesday, December 2nd (1:30pm-3:30pm)

GpuCV: A GPU-accelerated framework for Image Processing and Computer Vision *Yannick Allusse, Patrick Horain, Ankit Agarwal, and Cindula Saipriyadarshan*
A Comparison Study on Two Multi-Scale Shape Matching Schemes *Bo Li and Henry Johan*
PAD Model Based Facial Expression Analysis *Jie Cao, Hong Wang, Po Hu, and Junwei Miao*
Calibration and Pose Estimation of a Pox-slits Camera from a Single Image *N. Martins and H. Araujo*
Covariance Matrices for Crowd Behaviour Monitoring on the Escalator exits *Md. Haidar Sharif, Nacim Ihaddadene, and Chabane Djeraba*
User Verification by Combining Speech and Face Biometrics in Video *Imran Naseem and Ajmal Mian*
A Gibbsian Kohonen network for online Arabic character recognition *Neila Mezghani and Amar Mitiche*
Shading Through Defocus *Jose R.A. Torreao and Joao L. Fernandes*
A Gabor Quotient Image for Face Recognition under varying Illumination *Sanun Srisuk and Amnart Petpon*
Personal Identification using Palmprint and Contourlet Transform *Atif Bin Mansoor, M Mumtaz, H Masood, M Asif A Butt, and Shoab A Khan*
Generating Reflection Transparent Image Using Image Fusion Space *Satoru Morita and Yasutoshi Sugiman*
Fingerprint Images Enhancement In Curvelet Domain *Gholamreza Amayeh, Soheil Amayeh and Mohammad Taghi Manzuri*
Effective Frame Rate Decision By Lagrange Optimization For Frame Skipping VideoTranscoding *Ching-Ting Hsu, Chia-Hung Yeh and Mei-Juan Chen*
Symmetry of Shape via Self Similarity *Xingwei Yang, Nagesh Adluru, Longin Jan Latecki, Xiang Bai, and Zygmunt Pizlo*
Robust Estimation Approach for NL-Means Filter *J. Dinesh Peter, V.K. Govindan, and Abraham T. Mathew*
View-Invariant Pose Recognition using Multilinear Analysis and the Universum *Bo Peng, Gang Qian, and Yunqian Ma*
Scaling Up a Metric Learning Algorithm for Image Recognition and Representation *Adrian Perez-Suay and Francesc J. Ferri*
Smile Detection for User Interfaces *O. Deniz, M. Castrillon, J. Lorenzo, L. Anton, and G. Bueno*
A Novel Segmentation Algorithm for Digital Subtraction Angiography Images: first experimental results *Danilo Franchi, Pasquale Gallo and Giuseppe Placidi*
Image Representation in Differential Space *Shengzhi Du, Barend Jacobus van Wyk, M. Antonie van Wyk, Guoyuan Qi, Xinghui Zhang, and Chunling Tu*

Poster Session (cont'd)

Tuesday, December 2nd (1:30pm – 3:30pm)

A Four Point Algorithm for Fast Metric Cone Reconstruction from a Calibrated Image *Jin Zhou and Baoxin Li*
TEXTURE-BASED SHADOW REMOVAL FROM A SINGLE COLOR IMAGE *Qiang He and Chee-Hung Henry Chu*
Multi-Source Airborne IR and Optical Image Fusion and its Application to Target Detection *Fenghui Yao and Ali Sekmen*
A New Adaptive Combination Approach to Score Level Fusion for Face and Iris Biometrics Combining Wavelets and Statistical Moments *Nicolas Morizet and Jerome Gilles*
Medical Image Zooming Algorithm Based on Bivariate Rational Interpolation *Shanshan Gao, Caiming Zhang, Yunfeng Zhang, and Yuanfeng Zhou*
2D Shape Decomposition Based on Combined Boundary-Skeleton Features *JingTing Zeng, Rolf Lakaemper, XingWei Yang, and Xin Li*
Removing Pose from Face Images *Sean Begley, John Mallon, and Paul F. Whelan*
A Real Time Fingers Detection by Symmetry Transform Using a Two Cameras System *Rachid Belaroussi and Maurice Milgram*
High Resolution and High Dynamic Range Image Reconstruction from Differently Exposed Images *Hiroyuki Nakai, Shuhei Yamamoto, Yasuhiro Ueda, and Yoshihide Shigeyama*
PDE-based Facial Animation: Making the Complex Simple *Yun Sheng, Phil Willis, Gabriela Gonzalez Castro and Hassan Ugail*
A Variational Level Set Method for Multiple Object Detection *Zhenkuan Pan, Hua Li, Weibo Wei, and Shuhua Xu*
Detecting thalamic Abnormalities in Autism Using Cylinder Conformal Mapping *Qing He, Ye Duan, Xiaotian Yin, Xianfeng Gu, Kevin Karsch, Judith Miles*
Extraction Of Illumination Effects From Natural Images With Color Transition Model *Hiroaki Nishihara and Tomoharu Nagao*
A Novel Macroblock-level Rate-Distortion Optimization Scheme for H.264/AVC *Hong-jun Wang, Chang Sun and Hua Li*
Automatic Segmentation of the Apparent Contour for 3D Modeling of Cutting Tools from Single View *Xi Zhanga, Waiming Tsanga, Xiaodong Tian, Kazuo Yamazakia, and Masahiko Moric*
On Semantic Object Detection with Salient Feature *Zhidong Li and Jing Chen*
A Generic and Parallel Algorithm for 2D Image Discrete Contour Reconstruction *Guillaume Damiand and David Coeurjolly*
Spatial Filtering with Multi-scale Segmentation based on Gaussian Function *Chi-Fan Chen and Chia-Hsin Liang*
Visibility-based Test Scene Understanding by Real Plane Search *Jae-Kyu Lee, Seongjin Ahn, and Jin Wook Chung*
Real-time Face Verification for Mobile Platforms *Sung-Uk Jung, Yun-Su Chung, Jang-Hee Yoo, and Ki-Young Moon*

Poster Session (cont'd)
Tuesday, December 2nd (1:30pm – 3:30pm)

3D Human Motion Tracking Using Progressive Particle Filter *Shih-Yao Lin and I-Cheng Chang*
Visual Servoing for Patient Alignment in ProtonTherapy *Rachid Belaroussi and Guillaume Morel*
Improving Recognition through Object Sub-categorization *Al Mansur and Yoshinori Kuno*
Similarity Measure of the Visual Features using the Constrained Hierarchical Clustering for Content Based Image Retrieval *Sang Min Yoon and Holger Graf*
An Experimental Study of Reconstruction of Tool Cutting Edge Features Using Space Carving Method *Wai Ming Tsanga, Xi Zhanga, Kazuo Yamazakia, Xiaodong Tian, Masahiko Moric*
Real time object tracking in a video sequence using a fixed point DSP *Syed Aamir Ali Shah, Tahir Jamil Khattak, Muhammad Farooq, Yahya M. Khawaja, Abdul Bais, Asim Anees, and Muhammad U.K. Khan*
Gesture Recognition for a Webcam-Controlled First Person Shooter *Robert W. Wilson and Andrea Salgian*
3D line reconstruction of a road environment using an in-vehicle camera Toshihiro Asai, Koichiro Yamaguchi, Yoshiko Kojima, Takashi Naito, and Yoshiki Ninomiya
Braille Document Parameters Estimation for Optical Character Recognition *Zhenfei Tai, Samuel Cheng and Pramode Verma*
Bio-Imaging Toolkit for Indexing, Searching, Navigation, Discovery and Annotation *Afzal Godil, Benny Cheung, Asim Wagan, Xiaolan Li*
Stereoscopic View Synthesis by View Morphing *Seon-Min Rhee, Jongmoo Choi, and Ulrich Neumann*
Edge Detection from Global and Local Views Using an Ensemble of Multiple Edge Detectors *Yuchou Chang, Dah-Jye Lee, Yi Hong, and James Archibald*
An Effective and Fast Lane Detection Algorithm *Chung-Yen Su and Gen-Hau Fan*
Towards Real-Time Monocular Video-Based Avatar Animation *Utkarsh Gaur, Amrita Jain, and Sanjay Goel*
Temporal Computational Objects: A Process for Dynamic Surface Generation *Kurt W. Swanson, Kenneth A. Brakke and David E. Breen*
Hardware-Accelerated Particle-Based Volume Rendering for Multiple Irregular Volumes *Naohisa Sakamoto, Ding Zhongming, Takuma Kawamura, and Koji Koyamada*
Immersive Visualization of Casting Flow and Solidification *Jiyoung Park, Sang-Hyun Cho, Jung-Gil Choi, and Myoung-Hee Kim*
Graph-Based Visual Analytic Tools for Parallel Coordinates *Kai Lun Chung and Wei Zhuo*

Poster Session (cont'd)

Tuesday, December 2nd (1:30pm – 3:30pm)

Modeling and Visualization Approaches for Time-Varying Volumetric Data *Kenneth Weiss and Leila De Floriani*
Ubiquitous Interactive Visualization of 3-D Mantle Convection through Web Applications Using Java *Jonathan C. Mc Lane, Wojciech W. Czech, David A. Yuen, Michael R. Knox, James B.S.G. Greensky, M. Charley Kameyama, Vincent M. Wheeler, Rahul Panday, and Hiroki Senshu*
Streaming Mesh Optimization for CAD *Tian Xia and Eric Shaffer*
An Iterative Method for Fast Mesh Denoising *Shuhua Lai and Fuhua (Frank) Cheng*
On The Performance and Scalability of a GPU-Limited Commodity Cluster *Jorge Luis Williams and Robert E. Hiromoto*
Algorithms for the Automatic Design of Non-Formal Urban Parks *Soon Tee Teoh*
Hybrid Shading Model based on Device Performance for LOD Adaptive Service *Hakran Kim and Hwajin Park*
Incremental Texture Compression for Real-Time Rendering *Ying Tang and Jing Fan*
Geometry Independent Rain Rendering for Generic, Complex Scenes *J¨urgen Rossmann, Nico Hempe*
Extension of B-Spline Curves with G^2 Continuity Zhou Yuan-feng, Zhang Cai-ming, and Gao Shan-shan
Building New Mixed Reality Devices *Camilo A. Perez and Pablo A. Figueroa*
A Novel Acceleration Coding/Reconstruction Algorithm for Magnetic Resonance Imaging in Presence of Static Magnetic Field In-Homogeneities *Giuseppe Placidi, Danilo Franchi, Angelo Galante, Antonello Sotgiu*
Reconstruction of some segmented and dynamic scenes: trifocal tensors in P^4, theoretical set up for critical loci, and instability *Marina Bertolini, GianMario Besana, and Cristina Turrini*
Efficient algorithms for reconstruction of 2D-arrays from extended Parikh images *V. Masilamani, Kamala Krithivasan, K.G. Subramanian and Ang Miin Huey*
Reconstruction of Binary Images with Few Disjoint Components from Two Projections *Peter Balazs*
A connection between $\mathbf{Z}^n$ and generalized triangular grids *Benedek Nagy and Robin Strand*
Collage of Hexagonal Arrays *F. Sweety, D.G. Thomas and T. Kalyani*
Discrete Contour Extraction from Reference Curvature Function *H.G. Nguyen, B. Kerautret, P. Desbarats, and J.-0. Lachaud*
Change detection with SPOT-5 and FORMASAT-2 imagery *Patricia Cifuentes, José A. Malpica and Francisco J. González-Matesanz*
Stitching Video from Webcams *Mai Zheng, Xiaolin Chen and Li Guo*

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Zhang Yan, Delphi Corporation, USA
Zhang Yongmian, eTreppid Technologies, USA

(Area 2) Computer Graphics

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Belyaev Alexander, Max-Planck-Institut fuer Informatik, Germany
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Renner Gabor, Computer and Automation Research Institute, Hungary
Sapidis Nickolas, University of the Aegean, Greece
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(Area 3) Virtual Reality

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Blom Kristopher, University of Hamburg, Germany
Boyle Richard, NASA Ames Research Center, USA
Brady Rachael, Duke University, USA
Brega Jos Remo Ferreira, Universidade Estadual Paulista, Brazil
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Chen Jian, Brown University, USA
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Coquillart Sabine, INRIA, France
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Cremer Jim, University of Iowa, USA
Crosa Pere Brunet, Universitat Politècnica de Catalunya, Spain
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Figueroa Pablo, Universidad de los Andes, Colombia
Friedman Doron, IDC, Israel
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Hamza-Lup Felix, Armstrong Atlantic State University, USA
Harders Matthias, ETH Zuerich, Switzerland
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Hollerer Tobias, University of California at Santa Barbara, USA
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Klinger Evelyne, Arts et Metiers ParisTech, France
Klinker Gudrun, Technische Universität München, Germany
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Muller Stefan, University of Koblenz, Germany
Paelke Volker, Leibniz Universität Hannover, Germany

Papka Michael, Argonne National Laboratory, USA
Peli Eli, Harvard University, USA
Pugmire Dave, Los Alamos National Lab, USA
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Reiners Dirk, University of Louisiana, USA
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Santhanam Anand, MD Anderson Cancer Center Orlando, USA
Sapidis Nickolas, University of the Aegean, Greece
Schmalstieg Dieter, Graz University of Technology, Austria
Slavik Pavel, Czech Technical University in Prague, Czech Republic
Sourin Alexei, Nanyang Technological University, Singapore
Srikanth Manohar, Indian Institute of Science, India
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Wald Ingo, University of Utah, USA
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Zachmann Gabriel, Clausthal University, Germany
Zara Jiri, Czech Technical University in Prague, Czech
Zyda Michael, University of Southern California, USA

(Area 4) Visualization

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Apperley Mark, University of Waikato, New Zealand
Avila Lisa, Kitware, USA
Balázs Csébfalvi, Budapest University of Technology and Economics, Hungary
Bartoli Anna Vilanova, Eindhoven University of Technology, Netherlands
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