



18th Computer Vision Winter Workshop

February 4<sup>th</sup>-6<sup>th</sup> , 2013

Hernstein, Austria

**Workshop Chairs:**

Walter G. Kropatsch, Fuensanta Torres and Geetha Ramachandran

**Program Committee:**

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Branislav Micusik  
Roman Pflugfelder



## Workshop Schedule

Monday, February 4, 2013:

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11:30 - 14:00 Workshop Registration

12:30 - 13:30 Optional lunch

13:45-14:00 Opening

14:00 - 16:05 Oral Session 1: Detection and Pattern Recognition, Chair: Walter G. Kropatsch

- **Star Convex Object Detection by the Infinite Shape Mixture Model.** Tomas Sixta. Czech Technical University in Prague.
- **Knowledge transfer for Sequential Detection.** Šimon Fojtů, Karel Zimmermann, Tomáš Pajdla and Václav Hlaváč. Czech Technical University in Prague.
- **Detection of Curvilinear Objects in Aerial Images.** Petr Zuzánek, Karel Zimmermann and Vasek Hlavac. Czech Technical University in Prague.
- **Simultaneous Segmentation and Recognition of Graphical Symbols using a Composite Descriptor.** Martin Bresler, Daniel Průša and Václav Hlaváč. Czech Technical University in Prague.
- **Detection of brain tumors based on automatic symmetry analysis.** Pavel Dvořák and Walter Kropatsch. Brno University of Technology.

16:05 - 16:35 Coffee break

16:35 - 18:40 Oral Session 2: Visual Computing, Chair: Rok Mandeljc

- **CV HAZOP: Criticality Analysis for Computer Vision Algorithms.** Oliver Zendel, Markus Murschitz and Wolfgang Herzner. Austrian Institute of Technology.
- **Hierarchical Histogram for RGB Color Modeling.** Lukáš Cerman and Vasek Hlavac. Czech Technical University in Prague.
- **FHSR: Face Hallucination based on Sparse Reconstruction.** Yongchao Li, Cheng Cai, Guoping Qiu, Kin man Lam. Northwest A&F University.
- **Logical Layout Recovery: approach for graphic-based features.** Aysylu Gabdulkhakova, Tamir Hassan and Walter Kropatsch. Vienna University of Technology.
- **ViCoS Eye - a webservice for visual object categorization.** Domen Tabernik, Luka Cehovin, Matej Kristan, Marko Boben and Ales Leonardis. University of Ljubljana.

19:00 - 21:00 Dinner

Tuesday, February 5, 2013:

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7:00 - 8:30 Breakfast

8:30 - 9:30 Guest Talk

- **Accurate Fast Simulation of Light.** Werner Purgathofer. Vienna University of Technology.

9:30 - 10:45 Oral Session 3: 3D, Chair: Vaclav Hlavac

- **3D Change Detection by Inverted Voxel Spaces.** Jean-Séverin Morard, Manfred Klopschitz, Stefan Kluckner, Christof Hoppe and Horst Bischof. Siemens AG Austria.
- **Flexible Projector Calibration for Fringe Projection based 3D Scanning Systems.** Hafeez Anwar, Martin Kampel and Irfanud Din. Vienna University of Technology.
- **Line-based 3D Reconstruction of Wiry Objects.** Manuel Hofer, Andreas Wendel and Horst Bischof. Graz University of Technology.

10:45 - 11:15 Coffee break

11:15 - 12:30 Oral Session 4: Robotic Vision, Chair: Manuel Hofer

- **Rapid segmentation-based obstacle map estimation for USVs.** Matej Kristan, Janez Pers, Vildana Sulic Kenk and Stanislav Kovačič. University of Ljubljana.
- **Computing dense classifier response maps on FPGA architecture.** Ondrej Sychrovsky, Martin Matousek and Radim Sara. Czech Technical University in Prague.
- **Localizing and Segmenting Objects with 3D Objectness.** Aitor Aldoma, Federico Tombari, Walter Kropatsch and Markus Vincze. Vienna University of Technology.

12:30 - 13:30 Lunch

14:00 - 16:30 Social Event

16:30 - 17:00 Coffee break

17:00 - 19:05 Oral Session 5: Machine Learning, Chair: Danijel Škočaj

- **In defense of MAP-based MRF approaches for image restoration.** Yunjin CHEN, Tomas Pock, René Ranftl and Horst Bischof. Graz University of Technology.

- **Bundle Methods for Structured Output Learning — Back to the roots.** Michal Uricar, Vojtech Franc and Václav Hlaváč. Czech Technical University in Prague.
- **Learning and calibrating per-location classifiers for visual place recognition.** Petr Gronát, Guillaume Obozinski, Tomáš Pajdla and Josef Šivic. INRIA.
- **Statistical formulation of structured output learning from partially annotated examples.** Kostiantyn Antoniuk, Vojtech Franc and Václav Hlaváč. Czech Technical University in Prague.
- **Knowledge gap detection for interactive learning of categorical knowledge.** Matjaž Majnik, Matej Kristan and Danijel Skocaj. University of Ljubljana.

20:00- later Dinner

Wednesday, February 6, 2013:

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7:00 - 8:30 Breakfast

8:30 - 10:10 Oral Session 6: Tracking, Chair: Radim Sara

- **Multi-Camera Multi-Object Tracking from Visual Hulls.** Horst Possegger, Sabine Sternig, Thomas Mauthner, Peter Roth and Horst Bischof. Graz University of Technology
- **An Analysis of Diversity in Classification for Object Tracking.** Georg Nebehay and Roman Pflugfelder. Austrian Institute of Technology.
- **Top-down 3D Tracking and Pose Estimation of a Die Using Check-points.** Fuensanta Torres and Walter Kropatsch. Vienna University of Technology.
- **Is my new tracker really better than yours?.** Luka Cehovin, Matej Kristan and Ales Leonardis. University of Ljubljana

10:10 – 10:40 Coffee break

10:40– 11:50 Oral Session 7: Registration, Stereo and Structure, Chair: Yil Haxhimusa

- **Registering 2D Imagery with 3D Range Scans.** Brittany Morago, Giang Bui and Duan Ye. University of Missouri.
- **Constrained Bundle Adjustment for Panoramic Cameras.** Cenek Albl and Tomáš Pajdla. Czech Technical University in Prague.
- **Online Identification of Good Tracks Based on Spatiotemporal Appearance.** Christoph Feichtenhofer and Axel Pinz. Graz University of Technology.

11:50– 12:30 Closing and OCG Awards

12:30 Lunch