Feature Detectors and Descriptors: The State of the Art and Beyond.

   In the last decade we have seen enormous progress in the area of invariant local image and video descriptors that led to substantial improvements in many computer vision areas including registration, stereo vision, motion estimation, matching, retrieval, recognition of objects and actions. Techniques for low level image or video description are of wide interest in the computer vision and pattern recognition communities as they are the first stage of many algorithms. There are still many challenges left for a variety of problem classes. In particular, there is a need for diverse measurements from image and video, robust to large changes of viewing conditions, extreme photometric variations, occlusion, background clutter as well as intra-class variations. Topics of interest include all aspects of, and areas related to, the following:

- Local image and spatio-temporal video descriptors

- Interest point and region detectors including selection of salient or edge-based features

- Efficient implementations of detectors and descriptors

- Measures, datasets and protocols for performance evaluations

- Methods for geometric invariance of feature detectors

- Novel applications for local feature based representations

Organizers:

- Krystian Mikolajczyk, University of Surrey, UK K.Mikolajczyk@surrey.ac.uk

- Tinne Tuytelaars, Katholieke Universiteit Leuven, Belgium Tinne.Tuytelaars@esat.kuleuven.be

- Cordelia Schmid, INRIA, France, schmid@inrialpes.fr

- Jiri Matas, Czech Technical University, Czech Republic, matas@cmp.felk.cvut.cz

Program committee:

A. Berg, R. Fergus, H. Jegou, V. Lepetit, E. Rosten M. Brown, V. Ferrari, I. Laptev, M. Marszalek, F. Schubert, G. Csurka, J-M. Geusebroek, S. Lazebnik, S. Obdrzalek, J. Sivic, M. Douze, T. Gevers, B. Leibe, M. Perdoch, J. Van-de-Weijer