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Pattern Recognition

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Preface

In 1996, the 18^{th} Annual Symposium of the Deutsche Arbeitsgemeinschaft für Mustererkennung (DAGM) was hosted by the recently established research group on image processing of the University of Heidelberg, headed at that time by a single associate professor (Jähne) at the Interdisciplinary Center for Scientific Computing (IWR).

This year, it was a pleasure to host again the 29^{th} Annual Symposium of the DAGM in Heidelberg. Meanwhile, image processing at the IWR consists of three Chairs (Hamprecht, Schnörr, Jähne). It will be complemented in 2008 by the Heidelberg Center for Image Processing (HCI) and involve eight industrial partners as founding members.

This development reflects the fact that image processing and pattern recognition are research and business areas which keep growing in both volume and importance. The Fraunhofer Institute for Technological Trend Analysis (INT, Euskirchen) has recently identified image processing and pattern recognition among the "scientific-technical areas of the future"[1], and the National IT Summit has called for a strategic research effort to foster the real-world awareness of IT systems in its 2006 white paper on "HighTech Strategies for the Information Society." Such systems should be able to "understand" and to orient themselves in their environment, and the development of sophisticated techniques for image processing and pattern recognition is a prerequisite to meet these challenges.

DAGM made English its sole conference language in 2001. Since then, it has continuously strenghtened its position as the most important conference on pattern recognition and related fields (image processing, computer vision, machine learning) for the German-speaking community. It is increasingly attracting scientists from all over Europe and beyond.

The selection of contributions as oral or poster presentation does not signify a quality grading. Consequently, posters and oral presentations were given the same number of pages in these proceedings. The accepted papers have roughly been sorted by subject area, and within each section alphabetically by first author. During the symposium, much space was devoted to discussions by extending both the poster sessions and the discussions following the presentations.

We were honored to have the following three invited speakers at the symposium:

- *Sabine Huffel (KU Leuven, Belgium)*, Quantification and Classification of Magnetic Resonance Spectroscopic Images with Applications in Cancer Diagnosis
- *Robert Massen (University of Applied Sciences, Constance and Baumer Inspection GmbH, Germany)*, History of the German Machine Vision Industry and Its Influence on Academic Research

[1] www.zukunftsstiftung.at/innovationstag/pdf/Technologie-%20und%20Innovationstrends_Kretschmer.pdf

– *Shimon Ullman (Weizmann Institute of Science, Israel)*, Image Interpretation by Feature Hierarchies

We would like to extend our sincere thanks to:

– All authors and attendees who helped make this symposium a success
– All reviewers from the Program Committee whose dedication and timely reporting helped ensure the punctuality of the selection process
– UniTT, Barbara Werner and Karin Kubessa-Nasri for their commitment to ensuring a smooth organization
– Our own labs who helped in the elimination of many of the typos that remained in the final submissions
– Björn Andres and Thorsten Dahmen for their help with the compilation of the proceedings

Last but not least, we would like to thank:

– Robert Bosch GmbH (Gold Corporate Contributor),
– MVTec Software GmbH (Silver Corporate Contributor),
– Basler, PCO imaging, Philips, Silicon Software, Stemmer, and Volume Graphics (Bronze Corporate Contributors)

for their donations that allowed, in particular, low registration fees for students.

We were happy to host the 29^{th} Annual Symposium in Heidelberg and look forward to DAGM 2008 in Munich!

September 2007

Fred Hamprecht
Christoph Schnörr
Bernd Jähne

Organization

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Prizes 2006

Olympus Prize

The Olympus Prize 2006 was awarded to

Daniel Keysers and *Andrés Bruhn*

for their outstanding contributions to the area of pattern recognition and image understanding.

DAGM Prizes

The main prize for 2006 was awarded to:

Paul Ruhnau, Annette Stahl, Christoph Schnörr: On-line Variational Estimation of Dynamical Fluid Flows with Physics-Based Spatio-temporal Regularization

Simon Winkelbach, Sven Molkenstruck, Friedrich M. Wahl: Low-Cost Laser Range Scanner and Fast Surface Registration Approach

Further DAGM prizes for 2006 were awarded to:

Janina Schulz, Thorsten Schmidt, Olaf Ronneberger, Hans Burkhardt, Taras Pasternak, Alexander Dovzhenko, Klaus Palmet: Fast Scalar and Vectorial Grayscale-Based Invariant Features for 3D Cell Nuclei Localization and Classification

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