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23rd DAGM Symposium

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Preface

Sometimes milestones in the evolution of the DAGM Symposium become immediately visible. The Technical Committee decided to publish the symposium proceedings completely in English. As a consequence we successfully negotiated with Springer-Verlag to publish in the international well-accepted series “Lecture Notes in Computer Science”. The quality of the contributions convinced the editors and the lecturers. Thanks to them and to the authors. We received 105 acceptable, good, and even excellent manuscripts. We selected carefully, using three reviewers for each anonymized paper, 58 talks and posters. Our 41 reviewers had a hard job evaluating and especially rejecting contributions. We are grateful for the time and effort they spent in this task. The program committee awarded prizes to the best papers. We are much obliged to the generous sponsors.

We had three invited talks from outstanding colleagues, namely Bernhard Nebel (Robot Soccer – A Challenge for Cooperative Action and Perception), Thomas Lengauer (Computational Biology – An Interdisciplinary Challenge for Computational Pattern Recognition), and Nassir Navab (Medical and Industrial Augmented Reality: Challenges for Real-Time Vision, Computer Graphics, and Mobile Computing). N. Navab even wrote a special paper for this conference, which is included in the proceedings.

We were proud that we could convince well known experts to offer tutorials to our participants: H.-P. Seidel, Univ. Saarbrücken – A Framework for the Acquisition, Processing, and Interactive Display of High Quality 3D Models; S. Heuel, Univ. Bonn – Projective Geometry for Grouping and Orientation Tasks; G. Rigoll, Univ. Duisburg – Hidden Markov Models for Pattern Recognition and Man-Machine-Communication; G. Klinker, TU München – Foundations and Applications of Augmented Reality; R. Koch, Univ. Kiel – Reconstruction from Image Sequences; W. Förstner, Univ. Bonn – Uncertainty, Testing, and Estimation of Geometric Parameters; K.-H. Englmeier, GSF Munich – Computer Vision and Virtual Reality Applications in Medicine; W. Eckstein and C. Steger, MVTec GmbH, Munich – Industrial Computer Vision.

I appreciate the support of so many persons and institutions who made this conference happen: the generosity and cooperation of the Fachhochschule München and the Technische Universität München, the financial and material contributions by our sponsors, the helpers who did so much excellent work in preparing and realizing this event. Stefan Florczyk, my co-editor, and his team – Ulrike Schroeter, Oliver Bösl – did a great job. With the experience and imagination of my colleagues in the local committee – W. Abmayr, H. Ebner, K.-H. Englmeier, G. Hirzinger, E. Hundt, G. Klinker, H. Mayer – it was a pleasure to create and design this symposium. We all did our best and hope that the participants took their personal advantage of the conference and enjoyed their stay in Munich.

July 2001

Bernd Radig

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Organizer

DAGM e.V.: German Association for Pattern Recognition

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VIII Organization

Since 1978 the DAGM (German Association for Pattern Recognition) stages annually at different venues a scientific symposium with the aim of envisaging conceptual formulations, ways of thinking, and research results from different areas in pattern recognition, to stimulate the exchange of experience and ideas between the experts, and to further the young generation .

The DAGM e.V. was founded as a registered society in September 1999. Until then the DAGM was constituted from supporter societies which have since then been honorary members of the DAGM e.V.:

DGaO	Deutsche Arbeitsgemeinschaft für angewandte Optik (German Society of Applied Optics)
GMDS	Deutsche Gesellschaft für Medizinische Informatik, Biometrie und Epidemiologie (German Society for Medical Informatics, Biometry, and Epidemiology)
GI	Gesellschaft für Informatik (German Informatics Society)
ITG	Informationstechnische Gesellschaft (Information Technology Society)
DGN	Deutsche Gesellschaft für Nuklearmedizin (German Society of Nuclear Medicine)
IEEE	Deutsche Sektion des IEEE (The Institute of Electrical and Electronic Engineers, German Section)
DGPF	Deutsche Gesellschaft für Photogrammetrie und Fernerkundung
VDMA	Fachabteilung industrielle Bildverarbeitung/ Machine Vision im VDMA (Robotics + Automation Division within VDMA)
GNNS	German Chapter of European Neural Network Society
DGR	Deutsche Gesellschaft für Robotik

The

DAGM main prize 2000

endowed with DEM 5000

was awarded to

W. Förstner, A. Brunn, and S. Heuel

University Bonn, Institute of Photogrammetry

for the following contribution:

Statistically Testing Uncertain Geometric Relations.

Further DAGM prizes endowed with DEM 1000 for the year 2000 were awarded to

**A. Brakensiek, D. Willett,
and G. Rigoll**

Unlimited Vocabulary Script Recognition
Using Character N-Grams

University Duisburg, Germany,
Dept. of Computer Science,
Faculty of Electrical Engineering

M. Felsberg and G. Sommer

A New Extension of Linear Signal Processing
for Estimating Local Properties and Detecting
Features

University Kiel, Germany,
Institute of Computer Science and Applied
Mathematics

**C. Knöppel, U. Regensburger,
A. Schanz and B. Michaelis**

Robuste Erkennung von Straßenfahrzeugen im
Rückraumbereich eines Straßenfahrzeuges

DaimlerChrysler Research Stuttgart,
Germany,
Department for Driver Assistant Systems

V. Lohweg and D. Müller

Ein generalisiertes Verfahren zur Berechnung
von translationsinvarianten
Zirkulartransformationen für die Anwendung
in der Signal- und Bildverarbeitung

Technical University Chemnitz, Germany,
Chair Circuit and System Design

**N. Navab, M. Appel,
Y. Genc, B. Bascle,
V. Kumar and M. Neuberger**

As-Built Reconstruction Using Images and
Industrial Drawings

Imaging and Visualization,
Siemens Corporate Research, Princeton,
USA,
Siemens Nuclear Power,
Erlangen, Germany,

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