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Pattern Recognition

26th DAGM Symposium
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Proceedings

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Preface

We are delighted to present the proceedings of DAGM 2004, and wish to express our gratitude to the many people whose efforts made the success of the conference possible. We received 146 contributions of which we were able to accept 22 as oral presentations and 48 as posters. Each paper received 3 reviews, upon which decisions were based. We are grateful for the dedicated work of the 38 members of the program committee and the numerous referees. The careful review process led to the exciting program which we are able to present in this volume.

Among the highlights of the meeting were the talks of our four invited speakers, renowned experts in areas spanning learning in theory, in vision and in robotics:

- William T. Freeman, Artificial Intelligence Laboratory, MIT: *Sharing Features for Multi-class Object Detection*
- Pietro Perona, Caltech: *Towards Unsupervised Learning of Object Categories*
- Stefan Schaal, Department of Computer Science, University of Southern California: *Real-Time Statistical Learning for Humanoid Robotics*
- Vladimir Vapnik, NEC Research Institute: *Empirical Inference*

We are grateful for economic support from Honda Research Institute Europe, ABW GmbH, Transtec AG, DaimlerChrysler, and Stemmer Imaging GmbH, which enabled us to finance best paper prizes and a limited number of travel grants. Many thanks to our local support Sabrina Nielebock and Dagmar Maier, who dealt with the unimaginably diverse range of practical tasks involved in planning a DAGM symposium. Thanks to Richard van de Stadt for providing excellent software and support for handling the reviewing process. A special thanks goes to Jeremy Hill, who wrote and maintained the conference website. Without all of your dedicated contributions, the successful 26th DAGM Symposium in Tübingen would not have been possible.

June 2004

Carl Edward Rasmussen, Heinrich H. Bülthoff,
Martin A. Giese and Bernhard Schölkopf

Organization

DAGM e.V.: German Association for Pattern Recognition

Organizing Committee and Program Chairs

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Martin A. Giese	University Clinic Tübingen
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Since 1978 DAGM (German Association for Pattern Recognition) has organized annual scientific conferences at various venues. The goal of each DAGM symposium is to inspire conceptual thinking, support the dissemination of ideas and research results from different areas in the field of pattern recognition, stimulate discussions and the exchange of ideas among experts, and support and motivate the next generation of young researchers.

DAGM e.V. was founded as a registered research association in September 1999. Until that time, DAGM had been comprised of the following support organizations that have since become honorary members of DAGM e.V.:

DGaO	Deutsche Arbeitsgemeinschaft für angewandte Optik (German Society for 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 for Nuclear Medicine)
IEEE	Deutsche Sektion des IEEE (Institute of Electrical and Electronics Engineers, German Section)
DGPF	Deutsche Gesellschaft für Photogrammetrie und Fernerkundung (German Society for Photogrammetry, Remote Sensing and Geo-information)
VDMA	Fachabteilung industrielle Bildverarbeitung/Machine Vision im VDMA (Robotics + Automation Division within VDMA)
GNNS	German Chapter of the European Neural Network Society
DGR	Deutsche Gesellschaft für Robotik (German Robotics Society)

DAGM Prizes 2003

The main prize was awarded to

Ullrich Köthe
Universität Hamburg, Germany
Edge and Junction Detection with an Improved Structure Tensor

Further DAGM prizes for 2003 (sponsored by ABW) were awarded to

Christian Perwass, Vladimir Banarer, Gerald Sommer
Christian-Albrechts-Universität zu Kiel, Germany
Spherical Decision Surfaces Using Conformal Modelling

Martin Welk, Christian Feddern, Bernhard Burgeth, Joachim Weickert
Saarland Universität, Germany
Median Filtering of Tensor-Valued Images

Ivan Kovtun
Technische Universität Dresden, Germany
Partial Optimal Labelling Search for a NP-Hard Subclass of (max,+) Problems

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