

Preface

KI 2004 was the 27th edition of the annual German Conference on Artificial Intelligence, which traditionally brings together academic and industrial researchers from all areas of AI and which enjoys increasing international attendance.

KI 2004 received 103 submissions from 26 countries. This volume contains the 30 papers that were finally selected for presentation at the conference. The papers cover quite a broad spectrum of “classical” subareas of AI, like natural language processing, neural networks, knowledge representation, reasoning, planning, and search. When looking at this year’s contributions, it was exciting to observe that there was a strong trend towards actual real-world applications of AI technology. A majority of contributions resulted from or were motivated by applications in a variety of areas. Examples include applications of planning, where the technology is being exploited for taxiway traffic control and game playing; natural language processing and knowledge representation are enabling advanced Web-based information processing; and the integration of results from automated reasoning, neural networks and machine perception into robotics leads to significantly improved capabilities of autonomous systems.

The technical programme of KI 2004 was highlighted by invited talks from outstanding researchers in the areas of automated reasoning, robot planning, constraint reasoning, machine learning, and semantic Web: Jörg Siekmann (DFKI and University of Saarland, Saarbrücken), Malik Ghallab (LAAS-CNRS, Toulouse), François Fages (INRIA Rocquencourt), Martin Riedmiller (University of Osnabrück), and Wolfgang Wahlster (DFKI and University of Saarland, Saarbrücken). Their invited papers are also presented in this volume.

This year KI was held in co-location with INFORMATIK 2004, the German Conference on Computer Science, organized under the auspices of the German Informatics Society (GI). KI and INFORMATIK shared a joint day of invited presentations. The talks by Wolfgang Wahlster and Malik Ghallab were part of this joint programme.

A conference like KI 2004 involves the dedication of many people. First of all, there are the authors, who submitted their papers to the conference; there are the members of the program committee and the many additional reviewers, who worked hard on providing high-quality reviews in time and participated in the paper discussion process; and there is the highly supportive KI 2004 local arrangements committee. We are most grateful to all of them.

July 2004

Susanne Biundo
Thom Frühwirth
Günther Palm

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