

Lecture Notes in Artificial Intelligence 3607

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Jean-Daniel Zucker Lorenza Saitta (Eds.)

Abstraction, Reformulation and Approximation

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Proceedings



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Preface

This volume contains the proceedings of the 6th Symposium on Abstraction, Reformulation and Approximation (SARA 2005). The symposium was held at Airth Castle, Scotland, UK, from July 26th to 29th, 2005, just prior to the IJCAI 2005 conference in Edinburgh. Previous SARA symposia took place at Jackson Hole in Wyoming, USA (1994), Ville d’Estrel in Qubec, Canada (1995), Asilomar in California, USA (1998), Horseshoe Bay, Texas, USA (2000), and Kananaskis, Alberta, Canada (2002). This was then the first time that the symposium was held in Europe. Continuing the tradition started with SARA 2000, the proceedings have been published in the LNAI series of Springer.

Abstractions, reformulations and approximations (AR&A) have found applications in a variety of disciplines and problems, including constraint satisfaction, design, diagnosis, machine learning, planning, qualitative reasoning, scheduling, resource allocation and theorem proving, but are also deeply rooted in philosophy and cognitive science. The papers in this volume capture a cross-section of the various facets of the field and of its applications. One of the primary uses of AR&A is oriented to overcome computational intractability. AR&A techniques, however, have also proved useful for knowledge acquisition, explanation and other applications, as papers in this volume also illustrate.

The aim of SARA is to provide a forum for intensive and friendly interaction among researchers in all areas of AI in which an interest in the different aspects of AR&A exist. The diverse backgrounds of participants at this and previous meetings led to rich and lively exchanges of ideas, allowed the comparisons of goals, techniques and paradigms, and helped identify important research issues and engineering hurdles. SARA has always invited distinguished members of the research community to present keynote talks. SARA 2005 was no exception to this rule with invited talks from Rada Chirkova of the North Carolina State University at Raleigh, USA Aristide Mingozzi of the University of Bologna, Italy, and Robert Zimmer of Goldsmiths College, University of London and Goldsmiths Digital Studios, London.

We would like to thank the authors of all the submitted papers and research summaries, the referees, the invited speakers, the Program Committee members for all their time and effort, and, of course, all the attendees. We also thank the members of the Steering Committee for their advice along the way. In addition, a great “merci” to the Local Chair Ian Miguel and to all those who contributed to the organization of SARA 2005, in particular Mélanie Courtine.

Paris, May 19, 2005

Jean Daniel Zucker
Lorenza Saitta

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<http://sara2005.limbio-paris13.org>

SARA 2005 was organized by Ian Miguel.

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