Proceedings of the

7th International Workshop on Knowledge Representation meets Databases (KRDB2000)

KR DB

Berlin, Germany

August 21, 2000

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Also electronically available at

`http://sunsite.informatik.rwth-aachen.de/Publications/CEUR-WS/`

Contents

Preface

The *7th* International KRDB Workshop continues the tradition of annual international workshops devoted to facilitate cross-fertilisation between the fields of knowledge representation (KR) and databases (DB), started in 1994. Previous workshops were held in conjunction with various AI or databases conferences: KRDB'94, Saarbrücken, Germany; KRDB'95, Bielefeld, Germany; KRDB'96, Budapest, Hungary (in conjunction with ECAI'96); KRDB'97, Athens, Greece (in conjunction with VLDB'97); KRDB'98, Seattle, WA, USA (in conjunction with SIGMOD/PODS'98); and KRDB'99, Linköping, Sweden (as affiliate event with IJCAI'99). KRDB2000 is being held in Berlin (Germany) August 21 in conjunction the European Conference on Artifical Intelligence (ECAI2000).

The KRDB workshop series is motivated by the observation that researchers in the two areas of knowledge representation (KR) and databases (DB) develop techniques for the same fundamental problem, namely, to define in a declarative way representations of relevant aspects of an application domain, to provide methods to query such representations, and to support their evolution. As a consequence, they are facing similar questions, for instance,

- how to model classes, individuals, and relationships of an application domain and how to draw inferences from such models,
- how to represent temporal and spatial information and how to reason about it,
- how to cope with incomplete, insecure, and contradictory information,
- how to devise declarative query languages and how to reason about queries independently of the knowledge or database.

Not surprisingly, the formalisms developed in the two areas resemble each other. For example, there is a close connection between description logics in KR and object-oriented data models in DB. As a further example, for representing and querying topological spatial information, identical formalism originated independently in the two areas. KRDB intends to bring together researchers from the fields of KR and DB with the goal to exchange novel problems, challenges, solutions and techniques. In order to foster interaction and exchange, KRDB focuses every year on a specific topic. For the current edition we have chosen

Knowledge Representation Techniques for Conceptual Modeling.

An invited talk will be given by Maurizio Lenzerini (University of Rome 'La Sapienza', Italy), who has considerably contributed to recent advances in this area.

We thank all the Program Committee members and the additional reviewers who provided thoughtful and detailed reviews. We are also indebted to the excellent organising team of ECAI200, especially to Werner Horn and Marie-Odile Cordier, and of course to the originators of the KRDB Workshops series and members of the Executive Committee: Franz Baader, Manfred Jeusfeld, and Werner Nutt.

The members of KRDB2000 Program Committee are Vinay Chaudri (SRI International, USA), Dieter Fensel (University of Karlsruhe, Germany), Giuseppe De Giacomo (University of Rome 'La Sapienza', Italy), Enrico Franconi (University of Manchester, UK), Manfred Jeusfeld (KUB Tilburg, The Netherlands), Georg Lausen (University of Freiburg, Germany), Elisabeth Metais (Universite de Versailles, France), Marie-Christine Rousset (LRI, University of Paris Sud, France), and Timos Sellis (National Technical University of Athens, Greece).

In addition, Diego Calvanese (University of Rome 'La Sapienza', Italy), Alon Levy (University of Washington, WA, USA), Michel Klein (Vrije Universiteit Amsterdam; The Netherlands), Iztok Savnik (Universität Freiburg, Germany), and Frank van Harmelen (Vrije Universiteit Amsterdam; The Netherlands) kindly agreed to help with the review process, which was instrumental in preparing a quality program for the workshop.

We hope that this collection of papers will be useful to the readers interested in databases and AI.

Mokrane Bouzeghoub, Matthias Klusch, Werner Nutt, and Ulrike Sattler