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Conceptual Structures: Theory, Tools and Applications

6th International Conference
on Conceptual Structures, ICCS'98
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In memory of our colleague and friend,
Jean Fargues

Preface

Since 1993 the International Conference on Conceptual Structures (ICCS) has been the primary forum for reporting progress in conceptual structures research with main emphasis on conceptual graphs. Conceptual graphs are a knowledge representation model introduced by John F. Sowa in 1984, stemming from semantic networks and the existential graphs of C.S. Peirce. The formal aspects have two mathematical bases, logic and graph theory. Conceptual graphs are used in several domains, such as natural language processing, knowledge based systems, knowledge engineering and database design, among others. Research teams around the world have developed a sizeable software base and have built applications upon it.

These last years, ICCS conferences have expanded to other knowledge representation formalisms having relationships with conceptual graphs. Our desire for ICCS'98 was to develop this trend. The call for papers, the composition of the editorial board and of the program committee, and the choice of the invited speakers were guided by the desire to broaden the range of the conference. We firmly believe that efforts must be strengthened to bring the conceptual graphs community and the knowledge representation community closer.

These proceedings gather 30 papers (20 long papers and 10 research notes), carefully selected from 66 proposals presented at the sixth International Conference on Conceptual Structures, held in the city of Montpellier, France. These papers are broadly classified into the following categories: knowledge representation and knowledge engineering, tools, conceptual graphs and other formalisms, relationships with logics, algorithms and complexity, epistemology and ontologies, natural language processing, applications.

It is a pleasure to thank the invited speakers, Franz Baader, Daniel Kayser, and John F. Sowa for accepting our invitation to give talks and to contribute papers to the proceedings. We thank the authors, the editorial board, the program committee, and the auxiliary reviewers, for making this book, result of their cooperative work, a valuable contribution in the knowledge representation research field. Very special thanks are due to Eric Salvat, who spared no effort to make this conference a success (among his numerous activities for ICCS'98, he realized our Web site).

Finally, on behalf of the organizing committee, we thank the institutions that contributed to this conference: AFIA (French Association of AI), CNRS (National Center of Scientific Research), INRIA (National Institute of Automatics and Informatics), LIRMM (Laboratory of Informatics, Robotics, and Microelectronics of Montpellier), Université Montpellier 2, District de Montpellier, Région Languedoc-Roussillon.

Montpellier, August 1998

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