Preface

This volume contains selected papers presented at the 12th International Conference on Conceptual Structures, ICCS 2004, held in Huntsville Alabama, July 19–23, 2004.

The main theme of the conference, "Conceptual Structures at Work", was chosen to express our intention of applying conceptual structures for human-centered practical purposes. That invites us to develop not only clear conceptual theories, but also methods to support humans in the application of these theories in their societies. Some promising steps in this direction are being taken, but the gap between the researchers working on a highly sophisticated level on one side and the practitioners in many fields of applications on the other side is usually difficult to bridge. Some of us have experiences in such practical cooperation, but we need more members of our community to be engaged in "real life problems".

We all know that solutions of complex problems in practice require not only a well-developed formal theory, but also an understanding of the whole context of the given problems. To support our understanding we need general philosophical methods as well as formal theories for the representation of fundamental structures in practice. We believe that our community has powerful tools and methods for successful applications in practice, but that we must develop a forum to present our results to a broader audience. First we must understand the significant developments in our own group, which has activities in many directions of research.

For that purpose, we have invited five distinguished researchers, covering many aspects of conceptual structures and methods, to present their views on fundamental problems in conceptual knowledge processing. These talks are presented in the first five papers of this volume. We express our gratitude to the invited speakers for the substantial and clear presentation of their results.

The papers in this volume cover the most important areas of research in the field of conceptual structures: from philosophical foundations over logical investigations to conceptual graphs, and further on to conceptual frameworks in practical applications and reasoning with conceptual structures.

All the papers in this volume were reviewed by at least two reviewers belonging to the Program Committee and by one member of the Editorial Board. We thank the authors for their submissions, and express our gratitude to the members of the Program Committee and the Editorial Board for their worthy support of our research community in the field of conceptual structures.

July 2004

Karl Erich Wolff
Heather D. Pfeiffer
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Organization

The International Conference on Conceptual Structures (ICCS) is the annual conference and the principal research forum in the theory and practice of conceptual structures. Previous ICCS conferences were held at the Université Laval (Quebec City, 1993), at the University of Maryland (1994), at the University of California (Santa Cruz, 1995), in Sydney (1996), at the University of Washington (Seattle, 1997), in Montpellier (1998), at Virginia Tech (Blacksburg, 1999), at Darmstadt University of Technology (2000), at Stanford University (2001), at Borovets, Bulgaria (2002), and at Dresden University of Technology (2003).

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