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Design and Implementation of Symbolic Computation Systems

International Symposium, DISCO '93
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Proceedings

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Foreword

This volume contains the proceedings of the Third International Symposium on Design and Implementation of Symbolic Computation Systems, DISCO '93.

The growing importance of systems for symbolic computation has essentially influenced the decision to organize the DISCO conference series. DISCO '93 takes place in Gmunden, Austria, September 15 - 17, 1993, as an international event in the field, organized and sponsored by the Research Institute for Symbolic Computation (University J. Kepler, Linz, Austria) and by the Dipartimento di Informatica e Sistemistica (University "La Sapienza", Roma, Italy).

DISCO '93 focuses mainly on the most innovative methodological and technological aspects of hardware and software system design and implementation for symbolic and algebraic computation, automated reasoning, geometric modeling and computation, and automatic programming.

The international research communities have recognized the relevance of the proposed objectives and topics which are generally not well covered in other conferences in the areas of symbolic and algebraic computation.

DISCO '93 includes papers on theory, languages, software environments, architectures and in particular, papers on the design and the development of significant running systems.

The general objective of DISCO '93 is to present an up-to-date view of the field, while encouraging the scientific exchange among academic, industrial and user communities on the development of systems for symbolic computation. Therefore it is devoted to researchers, developers and users from academia, scientific institutions, and industry who are interested in the most recent advances and trends in the field of symbolic computation.

The Program Chairman received 56 submissions for DISCO '93 and organized the reviewing process in cooperation with the Program Committee. Each paper was sent to two Program Committee members and then carefully reviewed by at least three independent referees, including Program Committee members. The Program Committee met on April 13 to 14, 1993 at the Dipartimento Informatica e Sistemistica. Università di Roma "La Sapienza" (Italy), to reach the final decision on acceptance of the submitted papers. The resulting DISCO '93 Scientific Program corresponds well to the initial objectives.

Among the submissions, 22 papers were selected as full contributions for presentation at the conference, as well as in this volume, under classified sections. Six further papers were selected as contributions for a presentation at the conference, concerning work in progress or running systems relevant to the themes of the symposium. These papers are included in a separate section of the present volume.

All my personal appreciation goes, in particular to Franz Lichtenberger, the Symposium Chairman, and to both the Program Committee and the Organizing Committee members for their indefatigable and valuable cooperation.

On behalf of the Program Committee, I would like to thank the authors of the submitted papers for their significant response to our Call for Papers, the invited speakers for having agreed to make their outstanding contributions to DISCO '93, and the referees for their cooperation in timely and precisely reviewing the papers.

Roma, July 1993   Alfonso Miola

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