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# Rewriting Techniques and Applications

7th International Conference, RTA-96  
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## Preface

This volume contains the papers presented at the Seventh International Conference on Rewriting Techniques and Applications (RTA-96) held in New Brunswick, NJ, July 27–July 30, 1996, at Rutgers University, hosted by the Center for Discrete Mathematics and Computer Science (DIMACS). RTA-96 was one of the conferences participating in the 1996 Federated Logic Conference (FLoC). FLoC was modeled after the successful Federated Computer Research Conference (FCRC); the intention was to bring together as a synergetic group several conferences that apply logic to computer science. The other participating conferences were the Thirteenth Conference on Automated Deduction (CADE-13), the Eighth International Conference on Computer Aided Verification (CAV 96), and the Eleventh IEEE Symposium on Logic in Computer Science (LICS'96).

Term rewriting is one of the major logical concepts we use for modelling computation by deduction. The themes of the RTA-96 programme include the analysis of term rewriting systems, string and graph rewriting, rewrite-based theorem proving, conditional term rewriting, higher-order rewriting, unification, symbolic and algebraic computation, and efficient implementation of rewriting on sequential and parallel machines. Some of the highlights of the 1996 programme and hence of this volume are the answers to two longstanding open problems. Manfred Schmidt-Schauß has proved the decidability of distributive unification, while Ralf Treinen has shown that the elementary theory of one-step rewriting is undecidable.

Eighty-four papers were submitted to RTA-96: 78 regular papers and 6 system descriptions. Of these 84 papers, 28 regular papers and all 6 system descriptions were accepted. One of the accepted papers was withdrawn by its author, hence this volume contains 27 regular papers in addition to the system descriptions and abstracts of three invited talks. Gérard Huet's talk was given in a plenary session with LICS.

RTA-96 has received support from the ESPRIT Basic Research Working Groups CCL and COMPASS and from the Max Planck Institute for Computer Science. I would also like to thank the many people who have made RTA-96 possible. I am grateful: to the Programme Committee and the additional referees for reviewing the papers in a very short time, and maintaining the high standard of RTA conferences; to the Local Arrangements Chair, Leo Bachmair, and to the other members of the FLoC Organizing Committee, Rajeev Alur, Amy Felty, Douglas J. Howe, Stephen Mahaney, Jon G. Riecke (chair), and Moshe Vardi (Chair of Steering Committee), for organising an excellent and outstanding conference; and last but not least, to Ellen Fries, Manfred Jaeger, Uwe Waldmann, and the other members of my research group at MPI who helped with the many tasks of the programme chair, and with his lack of technical expertise in certain text processing tools.

Saarbrücken, May 1996

Harald Ganzinger  
RTA-96 Programme Chair

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