Preface

This volume contains the papers presented at the Sixteenth International Conference on Automated Deduction (CADE-16), held in Trento, Italy, July 7–10, 1999, and hosted by Istituto Trentino di Cultura – Centro per la ricerca scientifica e tecnologica (ITC-IRST). The year 1999 marks the 25th anniversary of CADE. Since their inception in 1974 at Argonne National Laboratory, the CADE conferences have matured into the major forum for presentation of research in all aspects of automated deduction.

CADE-16 was one of the conferences participating in the 1999 Federated Logic Conference (FLoC). FLoC'99 was the second Federated Logic Conference; the first took place in 1996 and was hosted by DIMACS at Rutgers University, New Brunswick, NJ. The intention of the Federated Logic Conferences is to bring together as a synergetic group several conferences that apply logic to computer science. The other participating conferences in FLoC'99 were the Eleventh International Conference on Computer-Aided Verification (CAV'99), the Fourteenth IEEE Symposium on Logic in Computer Science (LICS'99), and the Tenth Conference on Rewriting Techniques and Applications (RTA-99).

Eighty-three papers were submitted to CADE-16: 67 regular papers and 16 system descriptions. Each of the submissions was reviewed by at least four program committee members, and an electronic program committee meeting was held through the Internet. Of the 83 papers, 21 regular papers and 15 system descriptions were accepted. In addition, this volume contains full papers by two of the four invited speakers, Erich Grädel and Robert Nieuwenhuis, along with an abstract of Tobias Nipkow's invited lecture. Zohar Manna gave an invited talk in a plenary session with CAV.

These proceedings do not cover several important conference events. Four workshops were held on specialized research topics. The fourth automated theorem-proving system competition (CASC-16) was organized by Geoff Sutcliffe. And for the first time an induction system competition was organized by Dieter Hutter.

I would like to thank the many people who have made CADE-16 possible. I am grateful to the following groups and individuals: to the Program Committee and the additional referees for reviewing the papers in a very short time and maintaining the high standard of CADE conferences; to my fellow Trustees for their advice and co-operation; to the FLoC Organizing Committee (Fausto Giunchiglia, Leonid Libkin, Paolo Traverso, Morena Carli, Carola Dori, Alessandro Tuccio, Adolfo Villafiorita, and Moshe Vardi) for organising an excellent and outstanding conference; and last but not least, to Uwe Waldmann, and the other members of my research group at MPI, who helped with the many tasks of the program chair, and helped compensate for his lack of technical expertise in certain Web and text processing tools.

Saarbrücken, May 1999

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