

## Preface

For the past 25 years the CADE conference has been the major forum for the presentation of new results in automated deduction. This volume contains the papers and system descriptions selected for the 17th International Conference on Automated Deduction, CADE-17, held June 17-20, 2000, at Carnegie Mellon University, Pittsburgh, Pennsylvania (USA).

Fifty-three research papers and twenty system descriptions were submitted by researchers from fifteen countries. Each submission was reviewed by at least three reviewers. Twenty-four research papers and fifteen system descriptions were accepted. The accepted papers cover a variety of topics related to theorem proving and its applications such as proof carrying code, cryptographic protocol verification, model checking, cooperating decision procedures, program verification, and resolution theorem proving.

The program also included three invited lectures: “High-level verification using theorem proving and formalized mathematics” by John Harrison, “Scalable Knowledge Representation and Reasoning Systems” by Henry Kautz, and “Connecting Bits with Floating-Point Numbers: Model Checking and Theorem Proving in Practice” by Carl Seger. Abstracts or full papers of these talks are included in this volume. In addition to the accepted papers, system descriptions, and invited talks, this volume contains one page summaries of four tutorials and five workshops held in conjunction with CADE-17.

The CADE-17 ATP System Competition (CASC-17), held in conjunction with CADE-17, selected a winning system in each of four different automated theorem proving divisions. The competition was organized by Geoff Sutcliffe and Christian Suttner and was overseen by a panel consisting of Claude Kirchner, Don Loveland, and Jeff Pelletier. This was the fifth such competition held in conjunction with CADE. Since the contest was held during the conference the winners were unknown as of this printing and the results are not described here.

I would like to thank the members of the program committee and all the referees for their care and time in selecting the submitted papers. I would also like to give a special thanks to Bill McCune for setting up and maintaining the web site for the electronic program committee meeting.

April 2000

David McAllester

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## Previous CADEs

CADE-1, Argonne National Laboratory, USA, 1974  
 CADE-2, Oberwolfach, Germany, 1976  
 CADE-3, MIT, USA, 1977  
 CADE-4, University of Texas at Austin, 1979  
 CADE-5, Les Arcs, France, 1980 (Springer LNCS 87)  
 CADE-6, Courant Institute, New York, 1982 (Springer LNCS 138)  
 CADE-7, Napa, California, 1984 (Springer LNCS 170)  
 CADE-8, University of Oxford, UK, 1986 (Springer LNCS 230)  
 CADE-9, Argonne National Laboratory, USA, 1988 (Springer LNCS 310)  
 CADE-10, Kaiserslautern, Germany, 1990 (Springer LNAI 449)  
 CADE-11, Saratoga Springs, New York, 1992 (Springer LNAI 607)  
 CADE-12, Nancy, France, 1994 (Springer LNAI 814)  
 CADE-13, Rutgers University, USA, 1996 (Springer LNAI 1104)  
 CADE-14, James Cook University, Australia, 1997 (Springer LNAI 1249)  
 CADE-15, Lindau, Germany, July 6-10, 1998. (Springer LNAI 1421)  
 CADE-16, Trento, Italy, July, 1999. (Springer LNAI 1632)

Automated Deduction - CADE-17

17th International Conference on Automated Deduction

Pittsburgh, PA, USA, June 17-20, 2000 Proceedings

McAllester, D. (Ed.)

2000, XIV, 526 p., Softcover

ISBN: 978-3-540-67664-5