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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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Table of Contents

Session 1

A Dynamic Programming Approach to Categorial Deduction 1
Philippe de Groote

Tractable Transformations from Modal Provability Logics into First-Order Logic 16
Stéphane Demri and Rajeev Goré

Session 2

Invited Talk: Decision Procedures for Guarded Logics 31
Erich Grädel

A PSpace Algorithm for Graded Modal Logic 52
Stephan Tobies

Session 3

Solvability of Context Equations with Two Context Variables Is Decidable 67
Manfred Schmidt-Schauß and Klaus U. Schulz

Complexity of the Higher Order Matching 82
ToMasz Wierzbicki

Solving Equational Problems Efficiently 97
Reinhard Pichler

Session 4

VSDITLU: A Verifiable Symbolic Definite Integral Table Look-Up 112
A. A. Adams, H. Gottliebsen, S. A. Linton, and U. Martin

A Framework for the Flexible Integration of a Class of Decision Procedures into Theorem Provers 127
Predrag Janičić, Alan Bundy, and Ian Green

Presenting Proofs in a Human-Oriented Way 142
Helmut Horacek

Session 5

On the Universal Theory of Varieties of Distributive Lattices with Operators: Some Decidability and Complexity Results 157
Viorica Sofronie-Stokkermans

Maslov's Class K Revisited 172
Ullrich Hustadt and Renate A. Schmidt

Prefixed Resolution: A Resolution Method for Modal and Description Logics 187
Carlos Areces, Hans de Nivelle, and Maarten de Rijke

Session 6: System Descriptions

System Description: Twelf — A Meta-Logical Framework for Deductive Systems 202
Frank Pfenning and Carsten Schürmann

System Description: inka 5.0 - A Logic Voyager 207
Serge Autexier, Dieter Hutter, Heiko Mantel, and Axel Schairer

System Description: `CutRes 0.1`: Cut Elimination by Resolution 212
Matthias Baaz, Alexander Leitsch, and Georg Moser

System Description: MathWeb, an Agent-Based Communication Layer for Distributed Automated Theorem Proving 217
Andreas Franke and Michael Kohlhase

System Description: Using OBDD's for the Validation of Skolem Verification Conditions 222
E. Pascal Gribomont and Nachaat Salloum

Fault-Tolerant Distributed Theorem Proving 227
Jason Hickey

System Description: Waldmeister – Improvements in Performance and Ease of Use 232
Thomas Hillenbrand, Andreas Jaeger, and Bernd Löchner

Session 7

Formal Metatheory Using Implicit Syntax, and an Application to Data Abstraction for Asynchronous Systems 237
Amy P. Felty, Douglas J. Howe, and Abhik Roychoudhury

A Formalization of Static Analyses in System F 252
Frédéric Prost

On Explicit Reflection in Theorem Proving and Formal Verification 267
Sergei N. Artemov

Session 8: System Descriptions

System Description: Kimba, A Model Generator for Many-Valued First-Order Logics 282
Karsten Konrad and D. A. Wolfram

System Description: Teyjus—A Compiler and Abstract Machine Based Implementation of λProlog 287
Gopalan Nadathur and Dustin J. Mitchell

Vampire 292
Alexandre Riazanov and Andrei Voronkov

System Abstract: E 0.3 297
Stephan Schulz

Session 9

Invited Talk: Rewrite-Based Deduction and Symbolic Constraints 302
Robert Nieuwenhuis

Towards an Automatic Analysis of Security Protocols in First-Order Logic 314
Christoph Weidenbach

Session 10

A Confluent Connection Calculus 329
Peter Baumgartner, Norbert Eisinger, and Ulrich Furbach

Abstraction-Based Relevancy Testing for Model Elimination 344
Marc Fuchs and Dirk Fuchs

A Breadth-First Strategy for Mating Search 359
Matthew Bishop

Session 11: System Competitions

The Design of the CADE-16 Inductive Theorem Prover Contest 374
Dieter Hutter and Alan Bundy

Session 12: System Descriptions

System Description: SPASS Version 1.0.0 378
Christoph Weidenbach, Bijan Afshordel, Uwe Brahm, Christian Cohrs, Thorsten Engel, Enno Keen, Christian Theobalt, and Dalibor Topić

KЯ: A Theorem Prover for K 383
Andrei Voronkov

System Description: *CYNTHIA* 388
Jon Whittle, Alan Bundy, Richard Boulton, and Helen Lowe

System Description: MCS: Model-Based Conjecture Searching 393
Jian Zhang

Session 13

Invited Talk: Embedding Programming Languages in Theorem Provers . . . 398
Tobias Nipkow

Extensional Higher-Order Paramodulation and RUE-Resolution 399
Christoph Benzmüller

Automatic Generation of Proof Search Strategies for Second-Order Logic . 414
Raul H. C. Lopes

Author Index 429