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Automated Reasoning with Analytic Tableaux and Related Methods

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Foreword

This volume contains the research papers presented at the International Conference on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX 2002) held on July 30 – August 1, 2002 in Copenhagen, Denmark, in the context of the third Federated Logic Conference (FLoC 2002). This conference was the continuation of international meetings on the same topic held in Lautenbach (1992), Marseille (1993), Abingdon (1994), St. Goar (1995), Terrasini (1996), Pont-à-Mousson (1997), Oisterwijk (1998), Saratoga Springs (1999), and St Andrews (2000). In 2001 TABLEAUX was part of IJCAR 2001 in Siena. The frame of FLoC 2002 guaranteed once again close contact to the larger Theorem Proving and Logic in Computer Science community. This was in particular witnessed by the talk by Matthias Baaz, jointly invited by CADE-18 and TABLEAUX 2002.

Tableaux and related methods have been found to be a convenient formalism for automating deduction in various non-standard logics as well as in classical logic. This is nicely illustrated by the wide scope of logics that are covered by the papers collected in this volume: among them are linear logic, temporal logics, various modal logics, including hybrid logic and multi-modal logics, fuzzy logics like Gödel- and Łukasiewicz logics, various intermediate logics, quantified boolean logic, and, of course, classical first-order logic in various formats. Some papers mainly address foundational issues, others aim at efficient proof search and applications that include logic programming, reasoning about knowledge and belief, planning, nonmonotonic reasoning, efficient handling of equality, combining theories, and deciding word problems in certain algebraic theories.

Acknowledgements. We would like to thank the members of the program committee, the additional referees, and the members of the TABLEAUX steering committee (all named on the following pages). In particular, we thank Reiner Hähnle – among other duties: conference chair of CADE-18, president of the TABLEAUX steering committee, and member of the FLoC steering committee, the TABLEAUX program committee, and the FLoC organizing committee – who assisted us in many ways. We would also like to thank Gernot Salzer for installing and helping to maintain the software for our web-based reviewing procedure.

May 2002

Uwe Egly
Christian G. Fermüller

Previous Tableaux Workshops/Conferences

1992	Lautenbach, Germany	1993	Marseille, France
1994	Abingdon, England	1995	St. Goar, Germany
1996	Terrasini, Italy	1997	Pont-à-Mousson, France
1998	Oisterwijk, The Netherlands	1999	Saratoga Springs, USA
2000	St Andrews, UK	2001	part of IJACR, Siena, Italy

Invited Speakers

Matthias Baaz	TU Wien, Austria (invited jointly with CADE-18)
Dale Miller	Penn State University, USA

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