Preface

This volume constitutes the proceedings of the *14th International Conference on Theorem Proving in Higher Order Logics* (TPHOLs 2001) held 3–6 September 2001 in Edinburgh, Scotland. TPHOLs covers all aspects of theorem proving in higher order logics, as well as related topics in theorem proving and verification.

TPHOLs 2001 was collocated with the *11th Advanced Research Working Conference on Correct Hardware Design and Verification Methods* (CHARME 2001). This was held 4–7 September 2001 in nearby Livingston, Scotland at the Institute for System Level Integration, and a joint half-day session of talks was arranged for the 5th September in Edinburgh. An excursion to Traquair House and a banquet in the Playfair Library of Old College, University of Edinburgh were also jointly organized. The proceedings of CHARME 2001 have been published as volume 2144 of Springer-Verlag's *Lecture Notes in Computer Science* series, with Tiziana Margaria and Tom Melham as editors.

Each of the 47 papers submitted in the full research category was refereed by at least 3 reviewers who were selected by the Program Committee. Of these submissions, 23 were accepted for presentation at the conference and publication in this volume. In keeping with tradition, TPHOLs 2001 also offered a venue for the presentation of work in progress, where researchers invite discussion by means of a brief preliminary talk and then discuss their work at a poster session. A supplementary proceedings containing associated papers for work in progress was published by the Division of Informatics at the University of Edinburgh.

The organizers are grateful to Bart Jacobs and N. Shankar for agreeing to give invited talks at TPHOLs 2001, and to Steven D. Johnson for agreeing to give an invited talk at the joint session with CHARME 2001. Much of Bart Jacobs's research is on formal methods for object-oriented languages, and he is currently coordinator of a multi-site project funded by the European Union on tool-assisted specification and verification of JavaCard programs. His talk covered his own research and research of this project. A three page abstract on the background to his talk is included in this volume. N. Shankar is one of the principal architects of the popular PVS theorem prover, and has published widely on many theorem-proving related topics. He talked about the kinds of decision procedures that can be deployed in a higher-order-logic setting and the opportunities for interaction between them. We are very pleased to include an accompanying paper in these proceedings. Steven D. Johnson is a prominent figure in the formal methods community. His talk surveyed formalized system design from the perspective of research in interactive reasoning. He contrasted two interactive formalisms: one based on logic and proof, the other based on transformations and equivalence. The latter has been the subject of Johnson's research since the early 1980s. An abstract for this talk is included in these proceedings, and a full accompanying paper can be found in the CHARME 2001 proceedings.

The TPHOLs conference traditionally changes continent each year in order to maximize the chances that researchers all over the world can attend. Starting in 1993, the proceedings of TPHOLs and its predecessor workshops have been published in the following volumes of the Springer-Verlag *Lecture Notes in Computer Science* series:

1993 (Canada)	780	1997 (USA)	1275
1994 (Malta)	859	1998 (Australia)	1479
1995 (USA)	971	1999 (France)	1690
1996 (Finland)	1125	2000 (USA)	1869

The 2001 conference was organized by a team from the Division of Informatics at the University of Edinburgh and the Department of Computing Science at the University of Glasgow.

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June 2001   *Richard J. Boulton, Paul Jackson*

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Invited Speakers

Bart Jacobs (Nijmegen)
Steven D. Johnson (Indiana) (*joint with CHARME 2001*)
N. Shankar (SRI)

Additional Reviewers

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