Preface

This volume is the proceedings of the *13th International Conference on Theorem Proving in Higher Order Logics (TPHOLs 2000)* held 14–18 August 2000 in Portland, Oregon, USA. Each of the 55 papers submitted in the full research category was refereed by at least three reviewers who were selected by the program committee. Because of the limited space available in the program and proceedings, only 29 papers were accepted for presentation and publication in this volume.

In keeping with tradition, TPHOLs 2000 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 Oregon Graduate Institute (OGI) as technical report CSE-00-009.

The organizers are grateful to Bob Colwell, Robin Milner and Larry Wos for agreeing to give invited talks. Bob Colwell was the lead architect on the Intel P6 microarchitecture, which introduced a number of innovative techniques and achieved enormous commercial success. As such, he is ideally placed to offer an industrial perspective on the challenges for formal verification. Robin Milner contributed many key ideas to computer theorem proving, and to functional programming, through his leadership of the influential Edinburgh LCF project. In addition he is known for his work on general theories of concurrency, and his invited talk brings both these major themes together. Larry Wos was the developer of many of the fundamental approaches to automated proof in first order logic with equality. He also led the way in applying automated reasoning to solving open mathematical problems, and here he discusses some achievements of this project and future prospects.

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* or its predecessor 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		

May 2000   *Mark Aagaard, John Harrison*

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Robert Beers
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Sofiene Tahar (Concordia)
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Invited Speakers

Bob Colwell (Intel Corporation)
Robin Milner (University of Cambridge)
Larry Wos (Argonne National Laboratory)

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