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Theorem Proving in Higher Order Logics

11th International Conference, TPHOLs '98
Canberra, Australia
September 27 – October 1, 1998
Proceedings

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Preface

This volume contains the proceedings of *The 11th International Conference on Theorem Proving in Higher Order Logics* (TPHOLs'98), which was held in Canberra at The Australian National University, between September 27 and October 2, 1998. Each of the fifty-two papers submitted as completed research contributions was refereed by at least three reviewers appointed by the program committee. Because of the limited space in the program and proceedings, only twenty-six could be accepted for publication in this volume. The competition was tough, and many good papers were unsuccessful.

TPHOLs'98 continues the tradition of its predecessors in providing a venue for the presentation of work in progress, where researchers invite discussion of preliminary results by means of a short talk, a display at a poster session, and inclusion of a paper in a supplementary proceedings. For TPHOLs'98, the supplementary proceedings takes the form of a book entitled *Theorem Proving in Higher Order Logics: Emerging Trends, 1998* and published by the Computer Science Department of The Australian National University,

The invited speakers for TPHOLs'98 were Tobias Nipkow and Joakim von Wright; the organizers were delighted that both accepted the invitation and provided original papers for inclusion in the proceedings. Professor Nipkow plays a leading role in the Isabelle community, while Dr. von Wright is noted for his contributions both to theorem proving in higher order logics and to the area of program refinement. This is particularly pertinent since TPHOLs'98 was run in federation with *The 1998 International Refinement Workshop and Formal Methods Pacific* (IRW/FMP'98).

Although the TPHOLs conferences have their genesis in HOL Users Meetings, recent years have seen a high rate of contribution from the other major groups, particularly the user communities of Coq, Isabelle, LAMBDA, LEGO, NuPrl, and PVS. Since 1993 the proceedings have been published by Springer as Volumes 780, 859, 971, 1125, 1275, and 1479 of *Lecture Notes in Computer Science*. More history of TPHOLs can be found with further information about the 1998 event at `http://cs.anu.edu.au/TPHOLs98/`.

The conference was sponsored by the Computer Science Department of The Australian National University (ANU), Intel, the Defence Science and Technology Organisation (DSTO), The Australian Research Council, and ACSys (the Cooperative Research Centre for Advanced Computational Systems). The financial support of these groups is gratefully acknowledged.

Canberra, September 1998 Jim Grundy and Malcolm Newey

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