1. Record Nr.   UNISA996465875103316

   Titolo   Theorem Proving in Higher Order Logics [[electronic resource]] : 14th
                       International Conference, TPHOLs 2001, Edinburgh, Scotland, UK,
                       September 3-6, 2001. Proceedings / / edited by Richard J. Boulton,
                       Paul B. Jackson

   Pubbl/distr/stampa Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer,
                       , 2001

   ISBN   3-540-44755-5

   Edizione   [1st ed. 2001.]

   Descrizione fisica 1 online resource (X, 402 p.)

   Collana   Lecture Notes in Computer Science, , 0302-9743 ; ; 2152

   Disciplina   004/.01/51

   Soggetti   Programming languages (Electronic computers)
                       Computers
                       Artificial intelligence
                       Mathematical logic
                       Computer logic
                       Software engineering
                       Programming Languages, Compilers, Interpreters
                       Theory of Computation
                       Artificial Intelligence
                       Mathematical Logic and Formal Languages
                       Logics and Meanings of Programs
                       Software Engineering

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   Bibliographic Level Mode of Issuance: Monograph

   Nota di bibliografia   Includes bibliographical references at the end of each chapters and
                       index.

   Nota di contenuto   Invited Talks -- JavaCard Program Verification -- View from the Fringe
                       of the Fringe -- Using Decision Procedures with a Higher-Order Logic
                       -- Regular Contributions -- Computer Algebra Meets Automated
                       Theorem Proving: Integrating Maple and PVS -- An Irrational
                       Construction of ? from ? -- HELM and the Semantic Math-Web --
                       Calculational Reasoning Revisited An Isabelle/Isar Experience --
                       Mechanical Proofs about a Non-repudiation Protocol -- Proving Hybrid
                       Protocols Correct -- Nested General Recursion and Partiality in Type

Theory -- A Higher-Order Calculus for Categories -- Certifying the Fast Fourier Transform with Coq -- A Generic Library for Floating-Point Numbers and Its Application to Exact Computing -- Ordinal Arithmetic: A Case Study for Rippling in a Higher Order Domain -- Abstraction and Refinement in Higher Order Logic -- A Framework for the Formalisation of Pi Calculus Type Systems in Isabelle/HOL -- Representing Hierarchical Automata in Interactive Theorem Provers -- Refinement Calculus for Logic Programming in Isabelle/HOL -- Predicate Subtyping with Predicate Sets -- A Structural Embedding of Ocsid in PVS -- A Certified Polynomial-Based Decision Procedure for Propositional Logic -- Finite Set Theory in ACL2 -- The HOL/NuPRL Proof Translator -- Formalizing Convex Hull Algorithms -- Experiments with Finite Tree Automata in Coq -- Mizar Light for HOL Light.

Sommario/riassunto	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 veri?cation. TPHOLs 2001 was collocated with the 11th Advanced Research Working Conference on Correct Hardware Design and Veri?cation 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 p- lished 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 o?ered 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.