1. Record Nr. UNINA9910484595903321

Titolo	Theorem Proving in Higher Order Logics : 21st International Conference, TPHOLs 2008, Montreal, Canada, August 18-21, 2008, Proceedings / / edited by Otmane Ait Mohamed, César Munoz, Sofiène Tahar
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2008
ISBN	3-540-71067-1
Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (X, 321 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5170
Disciplina	004.015113
Soggetti	Compilers (Computer programs) Computer systems Software engineering Machine theory Computer science Compilers and Interpreters Computer System Implementation Software Engineering Formal Languages and Automata Theory Computer Science Logic and Foundations of Programming
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 and index.
Nota di contenuto	Invited Papers -- Twenty Years of Theorem Proving for HOLs Past, Present and Future -- Will This Be Formal? -- Tutorials -- A Short Presentation of Coq -- An ACL2 Tutorial -- A Brief Overview of PVS -- A Brief Overview of HOL4 -- The Isabelle Framework -- Regular Papers -- A Compiled Implementation of Normalization by Evaluation -- LCF-Style Propositional Simplification with BDDs and SAT Solvers -- Nominal Inversion Principles -- Canonical Big Operators -- A Type of Partial Recursive Functions -- Formal Reasoning About Causality Analysis -- Imperative Functional Programming with Isabelle/HOL -- HOL-Boogie — An Interactive Prover for the Boogie Program-Verifier -- Secure Microkernels, State Monads and Scalable Refinement --

Certifying a Termination Criterion Based on Graphs, without Graphs -- Lightweight Separation -- Real Number Calculations and Theorem Proving -- A Formalized Theory for Verifying Stability and Convergence of Automata in PVS -- Certified Exact Transcendental Real Number Computation in Coq -- Formalizing Soundness of Contextual Effects -- First-Class Type Classes -- Formalizing a Framework for Dynamic Slicing of Program Dependence Graphs in Isabelle/HOL -- Proof Pearls -- Proof Pearl: Revisiting the Mini-rubik in Coq.

Sommario/riassunto

This book constitutes the refereed proceedings of the 21st International Conference on Theorem Proving in Higher Order Logics, TPHOLs 2008, held in Montreal, Canada, in August 2008. The 17 revised full papers presented together with 1 proof pearl (concise and elegant presentations of interesting examples), 5 tool presentations, and 2 invited papers were carefully reviewed and selected from 40 submissions. The papers cover all aspects of theorem proving in higher order logics as well as related topics in theorem proving and verification such as formal semantics of specification, modeling, and programming languages, specification and verification of hardware and software, formalisation of mathematical theories, advances in theorem prover technology, as well as industrial application of theorem provers.