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	Nota di contenuto	Fix-Point Equations for Well-Founded Recursion in Type Theory -- Programming and Computing in HOL -- Proof Terms for Simply Typed Higher Order Logic -- Routing Information Protocol in HOL/SPIN -- Recursive Families of Inductive Types -- Aircraft Trajectory Modeling and Alerting Algorithm Verification -- Intel's Formal Verification Experience on the Willamette Development -- A Prototype Proof Translator from HOL to Coq -- Proving ML Type Soundness Within Coq -- On the Mechanization of Real Analysis in Isabelle/HOL -- Equational Reasoning via Partial Reflection -- Reachability Programming in HOL98 Using BDDs -- Transcendental Functions and Continuity Checking in PVS -- Verified Optimizations for the Intel IA-64 Architecture -- Formal Verification of IA-64 Division Algorithms -- Fast Tactic-Based Theorem Proving -- Implementing a Program Logic of Objects in a Higher-Order Logic Theorem Prover -- A Strong and Mechanizable Grand Logic -- Inheritance in Higher Order Logic: Modeling and Reasoning -- Total-Correctness Refinement for Sequential Reactive Systems -- Divider Circuit Verification with Model Checking and Theorem Proving -- Specification and Verification of a Steam-Boiler with Signal-Coq -- Functional Procedures in Higher-Order Logic -- Formalizing Stålmarck's Algorithm in Coq -- TAS — A Generic Window Inference System --

Weak Alternating Automata in Isabelle/HOL -- Graphical Theories of Interactive Systems: Can a Proof Assistant Help? -- Formal Verification of the Alpha 21364 Network Protocol -- Dependently Typed Records for Representing Mathematical Structure -- Towards a Machine-Checked Java Specification Book -- Another Look at Nested Recursion -- Automating the Search for Answers to Open Questions -- Appendix: Conjectures Concerning Proof, Design, and Verification.

| Sommario/riassunto | This volume is the proceedings of the 13th International Conference on Theo- rem 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 rese- arch 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 presen- tation 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 supplemen- tary 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. |