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Disciplina	004/.01/5113
Soggetti	Computer logic Artificial intelligence Software engineering Mathematical logic Logic design Logics and Meanings of Programs Artificial Intelligence Software Engineering/Programming and Operating Systems Mathematical Logic and Formal Languages Software Engineering Logic Design
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Nota di contenuto	Verified lexical analysis -- Extending window inference -- Program abstraction in a higher-order logic framework -- The village telephone system: A case study in formal software engineering -- Generating embeddings from denotational descriptions -- An interface between CLAM and HOL -- Classical propositional decidability via Nuprl proof extraction -- A comparison of PVS and Isabelle/HOL -- Adding external decision procedures to HOL90 securely -- Formalizing basic first order model theory -- Formalizing Dijkstra -- Mechanical verification of total correctness through diversion verification conditions -- A type annotation scheme for Nuprl -- Verifying a garbage collection

algorithm -- Hot: A concurrent automated theorem prover based on higher-order tableaux -- Free variables and subexpressions in higher-order meta logic -- An LPO-based termination ordering for higher-order terms without ?-abstraction -- Proving isomorphism of first-order logic proof systems in HOL -- Exploiting parallelism in interactive theorem provers -- I/O automata and beyond: Temporal logic and abstraction in Isabelle -- Object-oriented verification based on record subtyping in Higher-Order Logic -- On the effectiveness of theorem proving guided discovery of formal assertions for a register allocator in a high-level synthesis system -- Co-inductive axiomatization of a synchronous language -- Formal specification and theorem proving breakthroughs in geometric modeling -- A tool for data refinement -- Mechanizing relevant logics with HOL -- Case studies in meta-level theorem proving -- Formalization of graph search algorithms and its applications.

Sommario/riassunto

This book constitutes the refereed proceedings of the 11th International Conference on Theorem Proving in Higher Order Logics, TPHOLs '98, held in Canberra, Australia, in September/October 1998. The 26 revised full papers presented were carefully reviewed and selected from a total of 52 submissions. Also included are two invited papers. The papers address all current aspects of theorem proving in higher order logics and formal verification and program analysis. Besides the HOL system, the theorem provers Coq, Isabelle, LAMBDA, LEGO, NuPrl, and PVS are discussed.