1. Record Nr. UNISA996466091903316

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Titolo	Isabelle [[electronic resource]] : A Generic Theorem Prover / / by Lawrence C. Paulson
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1994
ISBN	3-540-48586-4
Edizione	[1st ed. 1994.]
Descrizione fisica	1 online resource (XIX, 329 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 828
Altri autori (Persone)	NipkowTobias <1958->
Disciplina	511.3/0285/53
Soggetti	Mathematical logic Computer logic Software engineering Artificial intelligence Mathematical Logic and Formal Languages Logics and Meanings of Programs Software Engineering Artificial Intelligence Mathematical Logic and Foundations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Foundations -- Getting started with Isabelle -- Advanced methods -- Basic use of Isabelle -- Proof management: The subgoal module -- Tactics -- Tacticals -- Theorems and forward proof -- Theories, terms and types -- Defining logics -- Syntax transformations -- Substitution tactics -- Simplification -- The classical reasoner -- Basic concepts -- First-order logic -- Zermelo-Fraenkel set theory -- Higher-order logic -- First-order sequent calculus -- Constructive Type Theory -- Syntax of Isabelle Theories.
Sommario/riassunto	As a generic theorem prover, Isabelle supports a variety of logics. Distinctive features include Isabelle's representation of logics within a meta-logic and the use of higher-order unification to combine inference rules. Isabelle can be applied to reasoning in pure mathematics or verification of computer systems. This volume constitutes the Isabelle documentation. It begins by outlining

theoretical aspects and then demonstrates the use in practice. Virtually all Isabelle functions are described, with advice on correct usage and numerous examples. Isabelle's built-in logics are also described in detail. There is a comprehensive bebliography and index. The book addresses prospective users of Isabelle as well as researchers in logic and automated reasoning.