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Altri autori (Persone)	ZhangJian
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Soggetti	Computer science Logic, Symbolic and mathematical Computer science - Mathematics Discrete mathematics Computer Science Logic and Foundations of Programming General Logic Discrete Mathematics in Computer Science
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Nota di contenuto	Chapter 1. Introduction to Logic -- Part I. Propositional Logic -- Chapter 2. Propositional Logic -- Chapter 3. Reasoning in Propositional Logic -- Chapter 4. Propositional Satisfiability -- Part II. First-Order Logic -- Chapter 5. First-Order Logic -- Chapter 6. Unification and Resolution -- Chapter 7. First-Order Logic with Equality -- Part III. Logic in Programming -- Chapter 8. Prolog: Programming in Logic -- Chapter 9. Hoare Logic -- Chapter 10. Temporal Logic -- Part IV. Logic of Computability -- Chapter 11. Decidable and Undecidable Problems -- Chapter 12. Decision Procedures.
Sommario/riassunto	Mathematical logic is an important basis for mathematics, computer science and artificial intelligence alike. This book provides a comprehensive introduction to various logics, including classical propositional logic and first-order predicate logic, as well as equational logic, temporal logic, and Hoare logic. In addition, it presents proof procedures for classical logics and decision procedures for checking the satisfiability of logical formulas. The book assumes no background

in logic. It presents logics as practical tools for solving various problems in artificial intelligence and formal verification. Accordingly, it is well suited for (junior and senior) undergraduate and graduate students majoring in computer science or mathematics. Each chapter includes roughly a dozen exercise problems, so as to help the reader understand the concepts and techniques discussed.
