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Altri autori (Persone)	BlackburnPatrick <1959-> BenthemJ. F. A. K. van <1949-> WolterFrank
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Nota di contenuto	Front Cover; Handbook of Modal Logic; Copyright Page; Table of Contents; List of Contributors; Preface; Part 1. Basic Theory; Chapter 1 Modal Logic: A Semantic Perspective; 1 Introduction; 2 Basic modal logic; 2.1 First steps in relational semantics; 2.2 The standard translation; 3 Bisimulation and definability; 3.1 Drawing distinctions; 3.2 Bisimulation; 3.3 Invariance and definability in first-order logic; 3.4 Invariance and definability in modal logic; 3.5 Modal logic and first-order logic compared; 3.6 Bisimulation as a game; 4 Computation and complexity; 4.1 Model checking 4.2 Satisfiability and validity: decidability4.3 Satisfiability and validity: complexity; 4.4 Other reasoning tasks; 5 Richer logics; 5.1 Axioms and relational frame properties; 5.2 Frame definability and undefinability; 5.3 Frame correspondence and second-order logic; 5.4 First-order frame definability; 5.5 Correspondence in richer languages; 5.6 Remarks on computability; 6 Richer languages; 6.1 The universal modality; 6.2 Hybrid logic; 6.3 Temporal logic with Until and Since

operators; 6.4 Conditional logic; 6.5 The guarded fragment; 6.6 Propositional Dynamic Logic; 6.7 The modal -calculus
6.8 Combined logics6.9 First-order modal logic; 6.10 General perspectives; 7 Alternative semantics; 7.1 Algebraic semantics; 7.2 Neighbourhood semantics; 7.3 Topological semantics; 8 Modal logic and its changing environment; Acknowledgements; Bibliography; Chapter 2 Modal Proof Theory; 1 Introduction; 2 Modal Axiomatics; 2.1 Normal Axiom Systems; 2.2 Soundness and Completeness; 2.3 Difficulties, and GL; 2.4 Sahlqvist Formulas; 3 Deduction, and the Deduction Theorem; 4 Natural Deduction; 4.1 Classical Natural Deduction; 4.2 Modal Natural Deduction; 5 Semantic Tableaus
5.1 A Classical Tableau System5.2 Destructive Modal Tableaus; 5.3 Soundness and Completeness; 5.4 The Logic GL; 5.5 Tableau Remarks; 6 Prefixed Tableaus; 6.1 A Prefixed System for K; 6.2 Soundness and Completeness; 6.3 Other Modal Logics; 7 Gentzen Systems; 7.1 Classical Propositional Sequents; 7.2 Modal Propositional Sequents; 8 Hypersequents; 8.1 Hypersequents for S5; 8.2 Examples; 8.3 Soundness and Completeness; 9 Logics of Knowledge; 9.1 A Basic Logic of Knowledge; 9.2 Common Knowledge; 10 Converse; 11 The Universal Modality and the Difference Modality; 12 What Are the Limitations
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3 Complexity

Sommario/riassunto

The Handbook of Modal Logic contains 20 articles, which collectively introduce contemporary modal logic, survey current research, and indicate the way in which the field is developing. The articles survey the field from a wide variety of perspectives: the underling theory is explored in depth, modern computational approaches are treated, and six major applications areas of modal logic (in Mathematics, Computer Science, Artificial Intelligence, Linguistics, Game Theory, and Philosophy) are surveyed. The book contains both well-written expository articles, suitable for beginners approaching the