

1. Record Nr.	UNINA9910461306003321
Titolo	Computability in context [[electronic resource]] : computation and logic in the real world / / editors, S. Barry Cooper, Andrea Sorbi
Pubbl/distr/stampa	London, : Imperial College Press Singapore ; Hackensack, N.J., : World Scientific Pub. Co., 2011
ISBN	1-283-14816-1 9786613148162 1-84816-277-4
Descrizione fisica	1 online resource (419 p.)
Altri autori (Persone)	CooperS. B (S. Barry) SorbiAndrea <1956->
Disciplina	511.3/52
Soggetti	Computable functions Computational intelligence Set theory Mathematics - Philosophy Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Preface; Contents; 1. Computation, Information, and the Arrow of Time P. Adriaans & P. van Emde Boas; 2. The Isomorphism Conjecture for NP M. Agrawal; 3. The Ershov Hierarchy M. M. Arslanov; 4. Complexity and Approximation in Reoptimization G. Ausiello, V. Bonifaci, & B. Escoffier; 5. Definability in the Real Universe S. B. Cooper; 6. HF-Computability Y. L. Ershov, V. G. Puzarenko, & A. I. Stukachev; 7. The Mathematics of Computing between Logic and Physics G. Longo & T. Paul; 8. Liquid State Machines: Motivation, Theory, and Applications W. Maass 9. Experiments on an Internal Approach to Typed Algorithms in Analysis D. Normann10. Recursive Functions: An Archeological Look P. Odifreddi; 11. Reverse Mathematics and Well-ordering Principles M. Rathjen & A. Weiermann; 12. Discrete Transfinite Computation Models P. D. Welch
Sommario/riassunto	Computability has played a crucial role in mathematics and computer science, leading to the discovery, understanding and classification of

decidable/undecidable problems, paving the way for the modern computer era, and affecting deeply our view of the world. Recent new paradigms of computation, based on biological and physical models, address in a radically new way questions of efficiency and challenge assumptions about the so-called Turing barrier. This volume addresses various aspects of the ways computability and theoretical computer science enable scientists and philosophers to deal with m
