

1. Record Nr.	UNINA9910955282103321
Titolo	Computability : Turing, Gödel, Church, and beyond / / edited by Jack Copeland, Carl Posy, and Oron Shagrir
Pubbl/distr/stampa	Cambridge, Massachusetts, : The MIT Press, [2013]
ISBN	0-262-31268-9 0-262-52748-0 0-262-31267-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (373 p.)
Disciplina	511.3/52
Soggetti	Computational complexity Mathematics - Philosophy
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 and index.
Nota di contenuto	""11 Is Quantum Mechanics Falsifiable? A Computational Perspective on the Foundations of Quantum Mechanics""""About the Authors""; ""Index""
Sommario/riassunto	"In the 1930s a series of seminal works published by Alan Turing, Kurt Gödel, Alonzo Church, and others established the theoretical basis for computability. This work, advancing precise characterizations of effective, algorithmic computability, was the culmination of intensive investigations into the foundations of mathematics. In the decades since, the theory of computability has moved to the center of discussions in philosophy, computer science, and cognitive science. In this volume, distinguished computer scientists, mathematicians, logicians, and philosophers consider the conceptual foundations of computability in light of our modern understanding. Some chapters focus on the pioneering work by Turing, Gödel, and Church, including the Church-Turing thesis and Gödel's response to Church's and Turing's proposals. Other chapters cover more recent technical developments, including computability over the reals, Gödel's influence on mathematical logic and on recursion theory and the impact of work by Turing and Emil Post on our theoretical understanding of online and interactive computing; and others relate computability and complexity

to issues in the philosophy of mind, the philosophy of science, and the philosophy of mathematics."

---