1.	Record Nr.	UNINA9910813457003321
	Titolo	Computational prospects of infinity [[electronic resource]] . Part I Tutorials / / editors, Chitat Chong ... [et al.]
	Pubbl/distr/stampa	Singapore ; ; Hackensack, NJ, : World Scientific, c2008
	ISBN	1-281-93434-8
		9786611934347
		981-279-405-0
	Descrizione fisica	1 online resource (264 p.)
	Collana	Lecture notes series / Institute for Mathematical Sciences, National University of Singapore ; ; v. 14
	Altri autori (Persone)	ChongC.-T <1949-> (Chi-Tat)
	Disciplina	511.322
	Soggetti	Recursion theory
		Set theory
		Infinite
	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	CONTENTS; Foreword; Preface; Recursion Theory Tutorials; Five Lectures on Algorithmic Randomness Rod Downey; 1. Introduction; 2. Lecture 1: Kolmogorov complexity basics; 2.1. Plain complexity; 2.2. Symmetry of Information; 2.3. Pre.x-free complexity; 2.4. The Coding Theorem; 2.5. Pre.x-free symmetry of information; 2.6. Pre.x-free randomness; 2.7. The overgraph functions; 3. Lecture 2: Randomness for reals; 3.1. Martin-L of randomness; 3.2. Schnorr's Theorem and the computational paradigm; 3.3. Martingales and the prediction paradigm; 3.4. Super martingales and continuous semimeasures 3.5. Schnorr and computable randomness 4. Lecture 3: Randomness in general; 4.1. The de Leeuw, Moore, Shannon, Shapiro Theorem, and Sacks' Theorem; 4.2. Coding into randoms; 4.3. Kucera Coding; 4.4. n-randomness; 4.5. Notes on 2-randoms; 4.6. Kucera strikes again; 4.7. van Lambalgen's Theorem; 4.8. Effective 0-1 Laws; 4.9. Omega operators; 5. Lecture 4: Calibrating randomness; 5.1. Measures of relative randomness and the Kucera-Slaman Theorem; 5.2. The Density Theorem; 5.3. Other measures of relative randomness; 5.4. <C and <K.; 5.5. Outside of the randoms; 5.6.

| Sommario/riassunto | This volume presents the written versions of the tutorial lectures given at the Workshop on Computational Prospects of Infinity, held from 18 June to 15 August 2005 at the Institute for Mathematical Sciences, National University of Singapore. It consists of articles by four of the leading experts in recursion theory (computability theory) and set theory. The survey paper of Rod Downey provides a comprehensive introduction to algorithmic randomness, one of the most active areas of current research in recursion theory. Theodore A Slaman's article is the first printed account of the ground-breaking |