Record Nr. UNINA9910783127303321 Autore Tourlakis George J. **Titolo** Lectures in logic and set theory . Volume 1 Mathematical logic / / George Tourlakis [[electronic resource]] Cambridge:,: Cambridge University Press,, 2003 Pubbl/distr/stampa **ISBN** 1-107-12856-0 1-280-41776-5 9786610417766 1-139-14853-2 0-511-18060-8 0-511-06658-9 0-511-06027-0 0-511-30759-4 0-511-61555-8 0-511-06871-9 Descrizione fisica 1 online resource (xi, 328 pages) : digital, PDF file(s) Collana Cambridge studies in advanced mathematics:: 82 Disciplina 511.3 Soggetti Logic, Symbolic and mathematical Set theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Cover; Half-title; Series-title; Title; Copyright; Contents; Preface; I Basic Logic: II The Second Incompleteness Theorem: Bibliography: List of Symbols; Index Sommario/riassunto This two-volume work bridges the gap between introductory expositions of logic or set theory on one hand, and the research literature on the other. It can be used as a text in an advanced undergraduate or beginning graduate course in mathematics, computer science, or philosophy. The volumes are written in a user-friendly conversational lecture style that makes them equally effective for selfstudy or class use. Volume 1 includes formal proof techniques, a section on applications of compactness (including nonstandard analysis), a generous dose of computability and its relation to the

incompleteness phenomenon, and the first presentation of a complete proof of Godel's 2nd incompleteness since Hilbert and Bernay's Grundlagen theorem.