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	Autore	Viale Matteo
	Titolo	The Forcing Method in Set Theory : An Introduction via Boolean Valued Logic / / by Matteo Viale
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	Soggetti	Logic, Symbolic and mathematical Mathematical Logic and Foundations Lògica matemàtica Teoria de conjunts Llibres electrònics
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	Nota di contenuto	- 1. Introduction -- 2. Preliminaries: Preorders, Topologies, Axiomatizations of Set Theory -- 3. Boolean Algebras -- 4. Complete Boolean Algebras -- 5. More on Preorders -- 6. Boolean Valued Models -- 7. Forcing.
	Sommario/riassunto	The main aim of this book is to provide a compact self-contained presentation of the forcing technique devised by Cohen to establish the independence of the continuum hypothesis from the axioms of set theory. The book follows the approach to the forcing technique via Boolean valued semantics independently introduced by Vopenka and Scott/Solovay; it develops out of notes I prepared for several master courses on this and related topics and aims to provide an alternative (and more compact) account of this topic with respect to the available classical textbooks. The aim of the book is to take up a reader with familiarity with logic and set theory at the level of an undergraduate course on both topics (e.g., familiar with most of the content of introductory books on first-order logic and set theory) and bring her/him to page with the use of the forcing method to produce independence (or undecidability results) in mathematics. Familiarity of

the reader with general topology would also be quite helpful; however, the book provides a compact account of all the needed results on this matter. Furthermore, the book is organized in such a way that many of its parts can also be read by scholars with almost no familiarity with first-order logic and/or set theory. The book presents the forcing method outlining, in many situations, the intersections of set theory and logic with other mathematical domains. My hope is that this book can be appreciated by scholars in set theory and by readers with a mindset oriented towards areas of mathematics other than logic and a keen interest in the foundations of mathematics.