Record Nr.	UNINA9910820245903321
Autore	Todorcevic Stevo
Titolo	Notes on forcing axioms / / Stevo Todorcevic, University of Toronto, Canada ; editors, Chitat Chong, Qi Feng, Yue Yang, National University of Singapore, Singapore, Theodore A. Slaman, W. Hugh Woodin, University of California, Berkeley, USA
Pubbl/distr/stampa	New Jersey : , : World Scientific, , [2014] 2014
ISBN	981-4571-58-X
Descrizione fisica	1 online resource (xiii, 219 pages) : illustrations
Collana	Lecture notes series (Institute for Mathematical Sciences, National University of Singapore), , 1793-0758 ; ; volume 26
Disciplina	511.3
Soggetti	Forcing (Model theory) Axioms Baire classes
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 by Series Editors; Foreword by Volume Editors; Preface; 1 Baire Category Theorem and the Baire Category Numbers; 1.1 The Baire category method - a classical example; 1.2 Baire category numbers; 1.3 P-clubs; 1.4 Baire category numbers of posets; 1.5 Proper and semi-proper posets; 2 Coding Sets by the Real Numbers; 2.1 Almost-disjoint coding; 2.2 Coding families of unordered pairs of ordinals; 2.3 Coding sets of ordered pairs; 2.4 Strong coding; 2.5 Solovay's lemma and its corollaries; 3 Consequences in Descriptive Set Theory; 3.1 Borel isomorphisms between Polish spaces 3.2 Analytic and co-analytic sets 3.3 Analytic and co-analytic sets under $p > 1$; 4 Consequences in Measure Theory; 4.1 Measure spaces; 4.2 More on measure spaces; 5 Variations on the Souslin Hypothesis; 5.3 A selective ultrafilter from $m > 1$; 5.4 The countable chain condition versus the separability; 6 The S-spaces and the L- spaces; 6.1 Hereditarily separable and hereditarily Lindelof spaces; 6.2 Countable tightness and the S- and L-space problems; 7 The Side- condition Method; 7.1 Elementary submodels as side conditions

1.

	 7.2 Open graph axiom 8 Ideal Dichotomies; 8.1 Small ideal dichotomy; 8.2 Sparse set-mapping principle; 8.3 P-ideal dichotomy; 9 Coherent and Lipschitz Trees; 9.1 The Lipschitz condition; 9.2 Filters and trees; 9.3 Model rejecting a finite set of nodes; 9.4 Coloring axiom for coherent trees; 10 Applications to the S-space Problem and the von Neumann Problem; 10.1 The S-space problem and its relatives; 10.2 The P-ideal dichotomy and a problem of von Neumann; 11 Biorthogonal Systems; 11.1 The quotient problem; 11.2 A topological property of the dual ball; 11.3 A problem of Rolewicz 16 Cardinal Arithmetic and mm 16.1 mm and the continuum; 16.2 mm and cardinal arithmetic above the continuum; 17 Reflection Principles; 17.1 Strong reflection of stationary sets; 17.2 Weak reflection of stationary sets; 17.3 Open stationary set-mapping reflection; Appendix A Basic Notions; A.1 Set theoretic notions; A.2 -systems and free sets; A.3 Topological notions; A.4 Boolean algebras; Appendix B Preserving Stationary Sets; B.1 Stationary sets; B.2 Partial orders, Boolean algebras and topological spaces; B.3 A topological translation of stationary set preserving Appendix C Historical and Other Comments
Sommario/riassunto	In the mathematical practice, the Baire category method is a tool for establishing the existence of a rich array of generic structures. However, in mathematics, the Baire category method is also behind a number of fundamental results such as the Open Mapping Theorem or the Banach-Steinhaus Boundedness Principle. This volume brings the Baire category method to another level of sophistication via the internal version of the set-theoretic forcing technique. It is the first systematic account of applications of the higher forcing axioms with the stress on the technique of building forcing notions