Record Nr. UNINA9910782098603321 Autore Diaconescu Razvan Titolo Institution-independent model theory [[electronic resource] /] / Razvan Diaconescu Pubbl/distr/stampa Basel;; Boston,: Birkhauser, c2008 **ISBN** 1-281-86259-2 9786611862596 3-7643-8708-4 Edizione [1st ed. 2008.] Descrizione fisica 1 online resource (386 p.) Studies in universal logic Collana Disciplina 511.3 511.34 Soggetti Model theory Logic, Symbolic and mathematical 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 Categories -- Institutions -- Theories and Models -- Internal Logic --Model Ultraproducts -- Saturated Models -- Preservation and Axiomatizability -- Interpolation -- Definability -- Possible Worlds --Grothendieck Institutions -- Institutions with Proofs -- Specification --Logic Programming. Sommario/riassunto A model theory that is independent of any concrete logical system allows a general handling of a large variety of logics. This generality can be achieved by applying the theory of institutions that provides a precise mathematical formulation for the intuitive concept of a logical system. Especially in computer science, where the development of a huge number of specification logics is observable, institutionindependent model theory simplifies and sometimes even enables a concise model-theoretic analysis of the system. Besides incorporating important methods and concepts from conventional model theory, the proposed top-down methodology allows for a structurally clean understanding of model-theoretic phenomena. As a consequence,

results from conventional concrete model theory can be understood

more easily, and sometimes even new results are obtained.