Record Nr. UNINA9910254170303321 Autore Seiter Julia Titolo Automatic Methods for the Refinement of System Models: From the Specification to the Implementation / / by Julia Seiter, Robert Wille, Rolf Drechsler Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2017 3-319-41480-1 **ISBN** Edizione [1st ed. 2017.] 1 online resource (VIII, 94 p. 30 illus., 5 illus. in color.) Descrizione fisica Collana SpringerBriefs in Electrical and Computer Engineering, , 2191-8112 Disciplina 004.21 Soggetti Electronic circuits Microprocessors **Electronics** Microelectronics Circuits and Systems **Processor Architectures** Electronics and Microelectronics, Instrumentation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Introduction -- Preliminaries -- Challenges in Model Refinement --Verification of Vertical Refinement -- Extraction of a Relation for Vertical Refinement -- Verification of Horizontal Refinement --Summary and Conclusions. Sommario/riassunto This book provides a comprehensive overview of automatic model refinement, which helps readers close the gap between initial textual specification and its desired implementation. The authors enable readers to follow two "directions" for refinement: Vertical refinement, for adding detail and precision to single description for a given model and Horizontal refinement, which considers several views on one level of abstraction, refining the system specification by dedicated descriptions for structure or behavior. The discussion includes several methods which support designers of electronic systems in this refinement process, including verification methods to check

automatically whether a refinement has been conducted as intended.