Record Nr. UNINA9910299490803321 Models, methods, and tools for complex chip design: selected Titolo contributions from FDL 2012 / / Jan Hasse, editor Pubbl/distr/stampa Cham [Switzerland]:,: Springer,, 2014 **ISBN** 3-319-01418-8 Edizione [1st ed. 2014.] 1 online resource (xv, 221 pages): illustrations (some color) Descrizione fisica Collana Lecture Notes in Electrical Engineering, , 1876-1100; ; 265 Disciplina 620 621.3815 Embedded computer systems - Design and construction Soggetti Integrated circuits - Design and construction Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "ISSN: 1876-1100." Note generali Nota di bibliografia Includes bibliographical references. Formal Plausibility Checks for Environment -- Efficient Refinement Nota di contenuto Strategy Exploiting Component Properties in A CEGAR Process --Formal Specification Level -- Power Estimation Methodology for SystemC -- SystemC Analysis for Nondeterminism Anomalies -- A Design and Verification Methodology for Mixed-Signal Systems Using SystemC-AMS -- Configurable Load Emulation Using FPGA and Power Amplifiers for Automotive Power ICs -- Model Based Design of Distributed Embedded Cyber Physical Systems -- Model-driven Methodology for the Development of Multi-level Executable Environments -- The Concept and Study of Grid Responsiveness --Polynomial Metamodel-Based Fast Optimization of Nanoscale PLL Components -- Methodology and Example-Driven Interconnect Synthesis for Designing Heterogenous Coarse-Grain Reconfigurable Architectures.

Sommario/riassunto

This book brings together a selection of the best papers from the fifteenth edition of the Forum on specification and Design Languages Conference (FDL), which was held in September 2012 at Vienna University of Technology, Vienna, Austria. FDL is a well-established international forum devoted to dissemination of research results, practical experiences and new ideas in the application of specification, design and verification languages to the design, modeling and

verification of integrated circuits, complex hardware/software embedded systems, and mixed-technology systems. Covers Assertion Based Design, Verification & Debug; Includes language-based modeling and design techniques for embedded systems; Covers design, modeling and verification of mixed physical domain and mixed signal systems that include significant analog parts in electrical and non-electrical domains; Includes formal and semi-formal system level design methods for complex embedded systems based on the Unified Modelling Language (UML) and Model Driven Engineering (MDE).