Record Nr. UNINA9910349400203321 Formal Aspects of Component Software: 15th International Conference, **Titolo** FACS 2018, Pohang, South Korea, October 10-12, 2018, Proceedings / / edited by Kyungmin Bae, Peter Csaba Ölveczky Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 **ISBN** 3-030-02146-7 Edizione [1st ed. 2018.] 1 online resource (XII, 297 p. 83 illus.) Descrizione fisica Programming and Software Engineering;; 11222 Collana 004.0151 Disciplina Soggetti Software engineering Programming languages (Electronic computers) Computer programming Mathematical logic Computer logic Software Engineering Programming Languages, Compilers, Interpreters **Programming Techniques** Mathematical Logic and Formal Languages Logics and Meanings of Programs Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Nota di contenuto What Good are Models -- Formal Design, Implementation and Verification of Blockchain Languages -- Building Correct SDN Components from a Global Event-B Formal Model -- Event-B Formalization of a Variability-Aware Component Model Patterns Framework -- Logical Characterization of Differential Privacy via Behavioral Metrics -- Incremental Computation of Synthesis Rules for Free-Choice Petri nets -- Programming Dynamic Reconfigurable Systems -- Automating Verification of State Machines with Reactive Designs and Isabelle/UTP -- Using Coloured Petri Nets for Resource Analysis of Active Objects -- Adaptive Formal Framework for WMN

Routing Protocols -- IsaK-Static: A Complete Static Semantics of K -- Solving Parameterised Boolean Equation Systems with Infinite Data

Sommario/riassunto

Through Quotienting -- Actors with Coroutine Support in Java -- Dynamic Cut-Off Algorithm for Parameterised Refinement Checking -- FACTum Studio: A Tool for the Axiomatic Specification and Verification of Architectural Design Patterns -- The SLCO Framework for Verified, Model-driven Construction of Component Software.

This book constitutes the refereed proceedings from the 15th International Conference on Formal Aspects of Component Software, FACS 2018, held in Pohang, South Korea, in October 2018. The 14 full papers presented together with an invited abstract and an invited paper were carefully reviewed and selected from 32 submissions. FACS 2016 is concerned with how formal methods can be used to make component-based and service-oriented software development succeed. Formal methods have provided a foundation for component-based software by successfully addressing challenging issues such as mathematical models for components, composition and adaptation, or rigorous approaches to verification, deployment, testing, and certification.