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Disciplina	005.1
Soggetti	Software engineering Software Engineering
Lingua di pubblicazione	Inglese
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Nota di contenuto	Formal Models and Analysis for Self-Adaptive Cyber-Physical Systems -- From Formal Methods to Software Components: Back to the Future? -- From Devices to Data: Testing the IoT -- Core Model for Choreographic Programming -- Checking Business Process Evolution -- Compositionality, Decompositionality and Refinement in Input/Output Conformance Testing -- Checking multi-view consistency of discrete systems with respect to periodic sampling abstractions -- Constrained Synthesis from Component Libraries -- MARTE/pCCSL: Modeling and Refining Stochastic Behaviors of CPSs with Probabilistic Logical Clocks -- A Formal and Run-time Framework for the Adaptation of Local Behaviours to Match a Global Property -- Formal Analysis of Predictable Data Flow in Fault-Tolerant Multicore Systems -- Reasoning about Connectors in Coq -- (Context-Sensitivity in) Reo, Revisited -- Validated Test Models for Software Product Lines: Featured Finite State Machines -- Tool Support for Fuzz Testing of Component-Based System Adaptation Policies -- Coordinated Actors for Reliable Self-Adaptive Systems -- Architecture-based design: a satellite on-board software case study.
Sommario/riassunto	This book constitutes the thoroughly revised selected papers from the 13th International Conference on Formal Aspects of Component Software, FACS 2016, held in Besançon, France, in October 2016. The

11 full papers presented together with one tool paper and 3 invited papers were carefully reviewed and selected from 27 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.
