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Nota di contenuto	On Model Checking Techniques for Randomized Distributed Systems -- Collaborative Modelling and Co-simulation in the Development of Dependable Embedded Systems -- Programming with Miracles -- An Event-B Approach to Data Sharing Agreements -- A Logical Framework to Deal with Variability -- Adding Change Impact Analysis to the Formal Verification of C Programs -- Creating Sequential Programs from Event-B Models -- Symbolic Model-Checking of Optimistic Replication Algorithms -- From Operating-System Correctness to Pervasively

Verified Applications -- A Compositional Method for Deciding Equivalence and Termination of Nondeterministic Programs -- Verification Architectures: Compositional Reasoning for Real-Time Systems -- Automatic Verification of Parametric Specifications with Complex Topologies -- Satisfaction Meets Expectations -- Showing Full Semantics Preservation in Model Transformation - A Comparison of Techniques -- Specification and Verification of Model Transformations Using UML-RSDS -- Multiformalism and Transformation Inheritance for Dependability Analysis of Critical Systems -- Translating Pi-Calculus into LOTOS NT -- Systematic Translation Rules from astd to Event-B -- A CSP Approach to Control in Event-B -- Towards Probabilistic Modelling in Event-B -- Safe Commits for Transactional Featherweight Java -- Certified Absence of Dangling Pointers in a Language with Explicit Deallocation -- Integrating Implicit Induction Proofs into Certified Proof Environments.

Sommario/riassunto

ThisvolumecontainstheproceedingsofIFM2010,the8thInternationalConf- ence on Integrated Formal Methods. The conference took place October 12-14, 2010,atthe INRIA researchcenterandthe LORIAlaboratoryinNancy,France. Previous editions were held in York, Dagstuhl, Turku, Canterbury, Eindhoven, Oxford, and Dusseldorf ¨ . The IFM conference series seeks to promote research into the combination of di'erent formal methods, including the combination of formal with semiformal methods, for system development. Such combinations are useful in order to apprehend di'erent aspects of systems, including fu- tional correctness, security, performance, and fault-tolerance. The conference provides a forum for discussing recent advances in the state of the art and for disseminating the results among the academic and industrial community. IFM2010received59submissions, coveringthespectrumofintegratedformal methods and ranging from formal and semiformal notations, semantics, re?- ment, veri'cation, and model transformations to type systems, logics, tools, and case studies. Each submission was reviewed by at least three members of the Program Committee. The committee decided to accept 20 papers. The conf- ence programalso included invited talks by Christel Baier, John Fitzgerald, and Rajeev Joshi. The conference was preceded by a day dedicated to the Wo- shop on Formal Methods for Web Data Trust and Security (WTS 2010)and two tutorials, one on the veri'cation of C# programs using Spec# and Boogie 2, + by Rosemary Monahan, and the other on the TLA proof system, by Denis Cousineau and Stephan Merz.