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Disciplina	004.01/51
Soggetti	Computer science Machine theory Compilers (Computer programs) Computer science—Mathematics Software engineering Artificial intelligence Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory Compilers and Interpreters Symbolic and Algebraic Manipulation Software Engineering Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and author index.
Nota di contenuto	Scalable Formal Machine Models -- Mechanized Semantics for Compiler Verification -- Automation in Computer-Aided Cryptography: Proofs, Attacks and Designs -- Program Certification by Higher-Order Model Checking -- A Formally-Verified Alias Analysis -- Mechanized Verification of Computing Dominators for Formalizing Compilers -- On the Correctness of an Optimising Assembler for the Intel MCS-51 Microprocessor -- An Executable Semantics for CompCert C -- Producing Certified Functional Code from Inductive Specifications -- The New Quickcheck for Isabelle: Random, Exhaustive and Symbolic

Testing under One Roof -- Proving Concurrent Noninterference -- Noninterference for Operating System Kernels -- Compositional Verification of a Baby Virtual Memory Manager -- Shall We Juggle, Coinductively? -- Proof Pearl: Abella Formalization of λ -Calculus Cube Property -- A String of Pearls: Proofs of Fermat's Little Theorem -- Compact Proof Certificates for Linear Logic -- Constructive Completeness for Modal Logic with Transitive Closure -- Rating Disambiguation Errors -- A Formal Proof of Square Root and Division Elimination in Embedded Programs -- Coherent and Strongly Discrete Rings in Type Theory -- Improving Real Analysis in Coq: A User-Friendly Approach to Integrals and Derivatives.

Sommario/riassunto

This book constitutes the refereed proceedings of the Second International Conference on Certified Programs and Proofs, CPP 2012, held in Kyoto, Japan, in December 2012. The 18 revised regular papers presented were carefully reviewed and selected from 37 submissions. They deal with those topics in computer science and mathematics in which certification via formal techniques is crucial.
