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Nota di contenuto	Verified, Practical Upper Bounds for State Space Diameters -- Formalization of Error-correcting Codes: from Hamming to Modern Coding Theory -- ROSCoq: Robots powered by Constructive Reals -- Asynchronous processing of Coq documents: from the kernel up to the user interface -- A Concrete Memory Model for CompCert -- Validating Dominator Trees for a Fast, Verified Dominance Test -- Refinement to Certify Abstract Interpretations, Illustrated on Linearization for Polyhedra -- Mechanisation of AKS Algorithm -- Machine-Checked Verification of the Correctness and Amortized -- Improved Tool Support for Machine-Code Decompilation in HOL4 -- A Formalized Hierarchy of Probabilistic System Types -- Learning To Parse on

Aligned Corpora -- A Consistent Foundation for Isabelle/HOL -- Foundational Property-Based Testing -- A First-Order Functional Intermediate Language for Verified Compilers -- Autosubst: Reasoning with de Bruijn Terms and Parallel Substitutions -- ModuRes: a Coq Library for Modular Reasoning about Concurrent -- Higher-Order Imperative Programming Languages -- Transfinite Constructions in Classical Type Theory -- A Mechanized Theory of regular trees in dependent type theory -- Deriving Comparators and Show-Functions in Isabelle/HOL -- Formalizing Knot Theory in Isabelle/HOL -- Pattern Matches in HOL: A New Representation and Improved Code Generation.

Sommario/riassunto

This book constitutes the proceedings of the 6th International Conference on Interactive Theorem Proving, ITP 2015, held in Nanjing, China, in August 2015. The 27 papers presented in this volume were carefully reviewed and selected from 54 submissions. The topics range from theoretical foundations to implementation aspects and applications in program verification, security and formalization of mathematics.
