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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1158
Disciplina	511.3/0285
Soggetti	Mathematical logic Software engineering Computers Computer logic Programming languages (Electronic computers) Artificial intelligence Mathematical Logic and Formal Languages Software Engineering/Programming and Operating Systems Theory of Computation Logics and Meanings of Programs Programming Languages, Compilers, Interpreters Artificial Intelligence
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Formato	Materiale a stampa
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Nota di contenuto	Implicit coercions in type systems -- A two-level approach towards lean proof-checking -- The greatest common divisor: A case study for program extraction from classical proofs -- Extracting a proof of coherence for monoidal categories from a proof of normalization for monoids -- A constructive proof of the Heine-Borel covering theorem for formal reals -- An application of constructive completeness -- Automating inversion of inductive predicates in Coq -- First order marked types -- Internal type theory -- An application of co-inductive types in Coq: Verification of the alternating bit protocol --

Conservativity of equality reflection over intensional type theory -- A natural deduction approach to dynamic logic -- An algorithm for checking incomplete proof objects in type theory with localization and unification -- Decidability of all minimal models -- Circuits as streams in Coq: Verification of a sequential multiplier -- Context-relative syntactic categories and the formalization of mathematical text -- A simple model construction for the Calculus of Constructions -- Optimized encodings of fragments of type theory in first order logic -- Organization and development of a constructive axiomatization.

Sommario/riassunto

This volume contains a refereed selection of revised full papers chosen from the contributions presented during the Third Annual Workshop held under the auspices of the ESPRIT Basic Research Action 6453 Types for Proofs and Programs. The workshop took place in Torino, Italy, in June 1995. Type theory is a formalism in which theorems and proofs, specifications and programs can be represented in a uniform way. The 19 papers included in the book deal with foundations of type theory, logical frameworks, and implementations and applications; all in all they constitute a state-of-the-art survey for the area of type theory.
