Record Nr. UNISA996465283503316 Static Analysis [[electronic resource]]: 16th International Symposium, **Titolo** SAS 2009, Los Angeles, CA, USA, August 9-11, 2009, Proceedings // edited by Jens Palsberg, Zhendong Su Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 2009 **ISBN** 1-280-38313-5 9786613561053 3-642-03237-0 [1st ed. 2009.] Edizione 1 online resource (X, 362 p.) Descrizione fisica Programming and Software Engineering;; 5673 Collana Disciplina 005.13 Soggetti Programming languages (Electronic computers) Software engineering Computer programming Computer logic Mathematical logic Programming Languages, Compilers, Interpreters Software Engineering/Programming and Operating Systems **Programming Techniques** Logics and Meanings of Programs Software Engineering Mathematical Logic and Formal Languages Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Invited Talks -- Algorithmic Program Synthesis with Partial Programs and Decision Procedures -- Algorithmic Verification of Systems Software Using SMT Solvers -- Contributed Papers -- Abstraction Refinement for Quantified Array Assertions -- Inferring Dataflow Properties of User Defined Table Processors -- Polymorphic Fractional Capabilities -- Automatic Parallelization and Optimization of Programs by Proof Rewriting -- Refinement of Trace Abstraction -- The Causal

Graph Revisited for Directed Model Checking -- Proving the

Correctness of the Implementation of a Control-Command Algorithm -- Abstract Interpretation of FIFO Replacement -- A Verifiable, Control Flow Aware Constraint Analyzer for Bounds Check Elimination -- Increasing the Scope and Resolution of Interprocedural Static Single Assignment -- Region Analysis for Race Detection -- Bottom-Up Shape Analysis -- The Complexity of Andersen's Analysis in Practice -- Optimizing Pointer Analysis Using Bisimilarity -- Type Analysis for JavaScript -- Abstract Parsing: Static Analysis of Dynamically Generated String Output Using LR-Parsing Technology -- Creating Transformations for Matrix Obfuscation -- Abstract Interpretation from a Topological Perspective -- Interval Polyhedra: An Abstract Domain to Infer Interval Linear Relationships -- Invariant Checking for Programs with Procedure Calls -- Inter-program Properties.

Sommario/riassunto

This book constitutes the refereed proceedings of the 16th International Symposium on Static Analysis, SAS 2009, held in Los Angeles, CA, USA in August 2009 - co-located with LICS 2009, the 24th IEEE Symposium on Logic in Computer Science. The 21 revised full papers presented together with two invited lectures were carefully reviewed and selected from 52 submissions. The papers address all aspects of static analysis including abstract domains, abstract interpretation, abstract testing, compiler optimizations, control flow analysis, data flow analysis, model checking, program specialization, security analysis, theoretical analysis frameworks, type based analysis, and verification systems.