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Nota di contenuto	Static Program Analysis via 3-Valued Logic -- Open Modeling in Multi-stakeholder Distributed Systems: Research and Tool Challenges -- An Algebraic Approach to the Static Analysis of Concurrent Software -- Polynomial Constants Are Decidable -- Normalizable Horn Clauses, Strongly Recognizable Relations, and Spi -- Nonuniform Alias Analysis of Recursive Data Structures and Arrays -- Representing and Approximating Transfer Functions in Abstract Interpretation of Heterogeneous Datatypes -- Automated Verification of Concurrent Linked Lists with Counters -- Backward Type Inference Generalises

Type Checking -- More Precise Yet Efficient Type Inference for Logic Programs -- A Few Graph-Based Relational Numerical Abstract Domains -- Static Analysis of the Numerical Stability of Loops -- On Termination of Logic Programs with Floating Point Computations -- Modular Control Flow Analysis for Libraries -- An Efficient Inclusion-Based Points-To Analysis for Strictly-Typed Languages -- Compactly Representing First-Order Structures for Static Analysis -- Possibly Not Closed Convex Polyhedra and the Parma Polyhedra Library -- Speeding Up Dataflow Analysis Using Flow-Insensitive Pointer Analysis -- Improving the Precision of Equality-Based Dataflow Analyses -- Guaranteed Optimization: Proving Nullspace Properties of Compilers -- Representation Analysis for Coercion Placement -- Pipeline Modeling for Timing Analysis -- Analysing Approximate Confinement under Uniform Attacks -- An Improved Constraint-Based System for the Verification of Security Protocols -- From Secrecy to Authenticity in Security Protocols -- Security Typings by Abstract Interpretation -- Static Confidentiality Enforcement for Distributed Programs -- Refinement of LTL Formulas for Abstract Model Checking -- Making Abstract Model Checking Strongly Preserving -- Semantics for Abstract Interpretation-Based Static Analyses of Temporal Properties -- Checking Safety Properties of Behavioral VHDL Descriptions by Abstract Interpretation -- States vs. Traces in Model Checking by Abstract Interpretation -- Reuse of Results in Termination Analysis of Typed Logic Programs -- Finiteness Analysis in Polynomial Time -- Detecting Optimal Termination Conditions of Logic Programs.

Sommario/riassunto

Static analysis is a research area aimed at developing principles and tools for verification and semantics-based manipulation of programs and high-performance implementation of programming languages. The series of Static Analysis Symposia is a forum for the presentation and discussion of advances in the area. This volume contains the papers accepted for presentation at the Ninth International Static Analysis Symposium (SAS 2002), which was held September 17-20, 2002 in Madrid, Spain. Previous SAS symposia were held in Paris, France (LNCS 2126), Santa Barbara, CA, USA (LNCS 1824), Venice, Italy (LNCS 1694), Pisa, Italy (LNCS 1503), Paris, France (LNCS 1302), Aachen, Germany (LNCS 1145), Glasgow, UK (LNCS 983), Namur, Belgium (LNCS 864), following the international workshop WSA in Padova, Italy (LNCS 724), Bordeaux, France (Bigre Vol. 81-82) and JTASPEFL/WSA, Bordeaux, France (Bigre Vol. 74). In response to the call for papers, 86 contributions were submitted from 12 different countries. Following on-line discussions, the Program Committee met in Madrid on June 22, 2002, and selected 32 papers, basing this choice on their scientific quality and relevance to the symposium. Each paper was reviewed by at least three Program Committee members or external referees. In addition to the contributed papers, this volume includes abstracts of invited talks by Thomas Reps (University of Wisconsin, USA), Robert Hall (AT&T Labs Research, USA), and Javier Esparza (University of Edinburgh, United Kingdom). On behalf of the Program Committee, the Program Chairs would like to thank all the authors who submitted papers and all the external referees for their careful work in the reviewing process. The support of the several funding agencies, listed later in the volume, which provided part of the funds for the organization of the conference is also gratefully acknowledged.