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Disciplina	005.13
Soggetti	Software engineering Programming languages (Electronic computers) Computer logic Logic, Symbolic and mathematical Computer programming Software Engineering/Programming and Operating Systems Programming Languages, Compilers, Interpreters Logics and Meanings of Programs Software Engineering Mathematical Logic and Formal Languages Programming Techniques
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Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Talks -- Injecting Life with Computers -- The Blast Query Language for Software Verification -- Program Generators and the Tools to Make Them -- Towards Declarative Programming for Web Services -- Program and System Verification -- Closed and Logical Relations for Over- and Under-Approximation of Powersets -- Completeness Refinement in Abstract Symbolic Trajectory Evaluation -- Constraint-Based Linear-Relations Analysis -- Spatial Analysis of BioAmbients -- Security and Safety -- Modular and Constraint-Based Information Flow Inference for an Object-Oriented Language -- Information Flow Analysis in Logical Form -- Type Inference Against Races -- Pointer Analysis -- Pointer-Range Analysis -- A Scalable

Nonuniform Pointer Analysis for Embedded Programs -- Bottom-Up and Top-Down Context-Sensitive Summary-Based Pointer Analysis -- Abstract Interpretation and Algorithms -- Abstract Interpretation of Combinational Asynchronous Circuits -- Static Analysis of Gated Data Dependence Graphs -- A Polynomial-Time Algorithm for Global Value Numbering -- Shape Analysis -- Quantitative Shape Analysis -- A Relational Approach to Interprocedural Shape Analysis -- Partially Disjunctive Heap Abstraction -- Abstract Domain and Data Structures -- An Abstract Interpretation Approach for Automatic Generation of Polynomial Invariants -- Approximating the Algebraic Relational Semantics of Imperative Programs -- The Octahedron Abstract Domain -- Path-Sensitive Analysis for Linear Arithmetic and Uninterpreted Functions -- Shape Analysis and Logic -- On Logics of Aliasing -- Generalized Records and Spatial Conjunction in Role Logic -- Termination Analysis -- Non-termination Inference for Constraint Logic Programs.

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## Sommario/riassunto

Static analysis is a research area aimed at developing principles and tools for verification, certification, semantics-based manipulation, and high-performance implementation of programming languages and systems. The series of Static Analysis symposia has served as the primary venue for presentation and discussion of theoretical, practical, and application advances in the area. This volume contains the papers accepted for presentation at the 11th International Static Analysis Symposium (SAS2004), which was held August 26–28 in Verona, Italy. In response to the call for papers, 63 contributions were submitted from 20 different countries. Following on-line discussions, the Program Committee met in Verona on May 06, and selected 23 papers, basing this choice on their scientific quality, originality, and relevance to the symposium. Each paper was reviewed by at least 3 PC members or external referees. In addition to the contributed papers, this volume includes contributions by outstanding invited speakers: a full invited paper by Thomas Henzinger (University of California at Berkeley), and abstracts of the talks given by the other invited speakers, Sheila McIlraith (University of Toronto), Ehud Shapiro (Weizmann Institute) and Yannis Smaragdakis (Georgia Institute of Technology).

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