

1. Record Nr.	UNISA996466089203316
Titolo	Static Analysis [[electronic resource]] : First International Static Analysis Symposium, SAS '94, Namur, Belgium, September 28 - 30, 1994. Proceedings // edited by Baudouin LeCharlier
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1994
ISBN	3-540-49005-1
Edizione	[1st ed. 1994.]
Descrizione fisica	1 online resource (XIII, 471 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 864
Disciplina	005.13/1
Soggetti	Software engineering Computers Computer programming Programming languages (Electronic computers) Mathematical logic Software Engineering/Programming and Operating Systems Theory of Computation Programming Techniques Software Engineering Programming Languages, Compilers, Interpreters Mathematical Logic and Formal Languages
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	The costs and benefits of abstract interpretation-driven Prolog optimization -- Mode analysis of functional logic programs -- Directional type checking of logic programs -- A systematic construction of abstract domains -- Constraint-based type inference and parametric polymorphism -- Efficient on-the-fly analysis of program behavior and static cache simulation -- From processor timing specifications to static instruction scheduling -- Stackability in the simply-typed call-by-value lambda calculus -- Generalized boxings, congruences and partial inlining -- Selective thunkification -- About synchronous programming and abstract interpretation -- Uniqueness and completeness analysis of array comprehensions --

Extent analysis of data fields -- Verification of linear hybrid systems by means of convex approximations -- Compile-time detection of uncaught exceptions in Standard ML programs -- Estimating the computational cost of logic programs -- Boolean functions for dependency analysis: Algebraic properties and efficient representation -- Deriving polymorphic type dependencies for logic programs using multiple incarnations of Prop -- Extracting Non-strict independent and-parallelism using sharing and freeness information -- Efficient fixpoint computation -- Finding fixpoints in finite function spaces using neededness analysis and chaotic iteration -- Efficient strictness analysis of Haskell -- Abstract interpretation using TDGs -- A type-based framework for program analysis -- Iterative fixed point computation for type-based strictness analysis -- Strictness and totality analysis -- Fast strictness analysis via symbolic fixpoint iteration -- Generating transformers for deforestation and supercompilation -- Mechanical elimination of commutative redundancy.

Sommario/riassunto

This volume presents the proceedings of the First International Static Analysis Symposium (SAS '94), held in Namur, Belgium in September 1994. The proceedings comprise 25 full refereed papers selected from 70 submissions as well as four invited contributions by Charles Consel, Saumya K. Debray, Thomas W. Getzinger, and Nicolas Halbwachs. The papers address static analysis aspects for various programming paradigms and cover the following topics: generic algorithms for fixpoint computations; program optimization, transformation and verification; strictness-related analyses; type-based analyses and type inference; dependency analyses and abstract domain construction.
