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Sommario/riassunto

Model-Checking -- Tutorial: Techniques to Improve the Scalability and Precision of Data Flow Analysis.

Static analysis is increasingly recognized as a fundamental reasearch area aimed at studying and developing tools for high performance implementations and v- i cation systems for all programming language paradigms. The last two decades have witnessed substantial developments in this eld, ranging from theoretical frameworks to design, implementation, and application of analyzers in optim-ing compilers. Since 1994, SAS has been the annual conference and forum for researchers in all aspects of static analysis. This volume contains the proceedings of the 6th International Symposium on Static Analysis (SAS'99) which was held in Venice, Italy, on 22{24 September 1999. The previous SAS conferences were held in Namur (Belgium), Glasgow (UK), Aachen (Germany), Paris (France), and Pisa (Italy). The program committee selected 18 papers out of 42 submissions on the basis of at least three reviews. The resulting volume o ers to the reader a complete landscape of the research in this area. The papers contribute to the following topics: foundations of static analysis, abstract domain design, and applications of static analysis to di erent programming paradigms (concurrent, synchronous, imperative, object oriented, logical, and functional). In particular, several papers use static analysis for obtaining state space reduction in concurrent systems. New application elds are also addressed, such as the problems of security and secrecy.