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Baudouin Le Charlier (Ed.)

# Static Analysis

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# Foreword

Static Analysis is increasingly recognized as a fundamental tool for high performance implementations and verification systems of high-level programming languages. The last two decades have witnessed substantial developments in this area, ranging from the theoretical frameworks to the design and implementation of analysers and their applications in optimizing compilers.

This volume contains the proceedings of the first international Static Analysis Symposium (SAS'94), held in Namur (Belgium) September 28-30, 1994. It was motivated by the success of the three previous international workshops Jtaspefl and WSA'92, which were held in Bordeaux (France), and WSA'93, which took place in Padova (Italy). The proceedings of WSA'93 are published by Springer-Verlag as Lecture Notes in Computer Science, volume 724.

The aim of SAS'94 is to promote contacts and information exchange among scientists who share common interests in static analysis for different programming paradigms. Researchers from the fields of concurrent, constraint, functional, imperative, logic and object-oriented programming constitute the audience of SAS.

In response to the call for papers, 70 papers were submitted to SAS'94 by authors from USA, France, UK, Denmark, Germany, Belgium, Sweden, Australia, Italy, Austria, Japan, The Netherlands and Spain. All submitted papers were reviewed by at least 4 experts. The program committee met on June 27, in Namur, and, after lively discussion based on these referee reports, selected 25 high quality papers. Since broadening the impact of Static Analysis in Computer Science is one of the goals of SAS, a few papers on the borderline of research and survey were also accepted.

Selected papers contribute to the following topics:

- Generic algorithms for fixpoint computation,
- Program optimization, transformation and verification,
- Strictness-related analyses,
- Type-based analyses and type inference,
- Dependency analyses,
- Abstract domain construction.

At the symposium four invited talks were given by Charles Consel, Saumya K. Debray, Thomas W. Getzinger and Nicolas Halbwachs.

This volume contains the four invited presentations and the selected papers.

I thank all members of the program committee and all the referees for their care in reviewing the submitted papers. They are listed in the following pages.

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- Belgian National Fund for Scientific Research,
- University of Namur (FUNDP).

I express my gratitude to the members of the organizing committee for their contribution to the success of SAS'94 and particularly to Christiane Leroy and Denis Zampuniéris who provided invaluable help. Special thanks are due to Pascal Van Hentenryck for his precious advice.

Namur,  
July 1994

Baudouin Le Charlier

# List of Referees

Many referees helped the Program Committee in evaluating papers. Their assistance is gratefully acknowledged.

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