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Foreword

The annual Symposium on Theoretical Aspects of Computer Science (STACS) is held each year, alternatively in Germany and France. STACS is organized jointly by the Special Interest Group for Theoretical Computer Science of the Gesellschaft für Informatik (GI) and the Special Interest Group for Applied Mathematics of the Association Française des Sciences et Techniques de l'Information, de l'Organisation et des Systèmes (afcet).

STACS 91, the eighth in this series, was held in Hamburg, February 14 – 16. It was preceded by symposia at Rouen (1990), Paderborn (1989), Bordeaux (1988), Passau (1987), Orsay (1986), Saarbrücken (1985), and Paris (1984); the proceedings of all these symposia are published in this Lecture Notes series.

The large number of 157 submitted papers from 32 countries, their scientific quality and relevance for the symposium once again proved the importance of STACS for many areas of theoretical computer science.

Among the submission were 38 from Germany, 30 from USA, and 24 from France. The time schedule of the symposium allowed for acceptance of only 41 of the submitted papers and made parallel sessions unavoidable. Therefore, the selection was very difficult and many good papers had to be rejected. Almost all of the papers were judged by four referees and with the help of their evaluation the Program Committee selected the program. The Program Committee consisted of:

A. Arnold (<i>Bordeaux</i>)	J. Håstad (<i>Stockholm</i>)
W. Brauer (<i>München</i>)	M. Jantzen (<i>Hamburg</i> , chairman)
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We would like to express our gratitude to all members of the Program Committee, in particular to those who made the final selection, and to all the referees who assisted them. Moreover we would like to thank all those who submitted papers to this symposium. STACS 91 offered three invited talks which opened each day of the symposium:

Martin Wirsing (*Passau*), J. Leszczyłowski (*Warszawa*): Polymorphism, parameterization and typing: an algebraic specification perspective.

Jean-Pierre Jouannaud (*Orsay*): High-order executable algebraic specifications.

Jeff S. Vitter (*Providence*): Efficient memory access in large scale computation.

A number of software systems were presented which showed the possibilities of applying theoretical results to software construction as well as providing a help for doing research.

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Hamburg, December 1990

Christian Choffrut
Matthias Jantzen

Referees

Many referees were helping the program committee to evaluate the submitted papers. Their assistance is gratefully acknowledged.

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