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Automata Implementation

Second International Workshop
on Implementing Automata, WIA'97
London, Ontario, Canada
September 18-20, 1997
Revised Papers



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Foreword

The papers contained in this volume were presented at the second international Workshop on Implementing Automata, held September 18–20, 1997, at the University of Western Ontario, London, Ontario, Canada.

The workshop addressed issues involved in the implementation of automata of all types. The goal of the workshops is to provide a forum for active researchers who are involved in various aspects of this area. Clearly, the area overlaps other areas such as natural-language processing, pattern matching, speaker recognition, and VLSI testing, to name a few.

The major motivation for starting these workshops is that there has been no single forum in which automata-implementation issues are discussed. The interest shown in the first and second workshops demonstrates that there is a need for such a forum. Two recent reports by members of the theoretical computer science community suggested that researchers should engage in more application-oriented research. The number of packages, toolkits, and systems that have recently been developed to manipulate formal-language-theory objects can be interpreted as a response to this call. Regular expressions are used in many utilities and systems; indeed, they are such a useful tool that variants of regular expressions have been introduced in document processing, in concurrent programming, and in database systems. Finite-state systems are used to specify protocols, to model faults in VLSI circuits, and to solve spaghetti-programming problems. Finite-state transducers are a cornerstone of work on phonology and morphology.

The general organization and orientation of WIA conferences are governed by a Steering Committee composed of Stuart Margolis, Denis Maurel, Sheng Yu, and Derick Wood. The 1998 meeting of WIA will be held at the Université Rouen, France, and the 1999 meeting will be held in Germany.

The local arrangements for WIA 97 were co-chaired by Helmut Jürgensen and Sheng Yu who were ably assisted by Caroline Sori and Marc Tessier. The conference was supported in part by the Natural Sciences and Engineering Research Council of Canada and by the University of Western Ontario. We gratefully acknowledge the efforts of all members of the local arrangements team and last, but certainly not least, we thank the researchers who were brave enough to demonstrate their software.

The Program Committee for WIA 97 was:

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