Preface

This volume contains the papers accepted for presentation at the 5th Workshop on Algorithm Engineering (WAE 2001) held in Århus, Denmark, on August 28–31, 2001. The Workshop on Algorithm Engineering is an annual meeting devoted to researchers and developers interested in practical aspects of algorithms and their implementation issues. The goal of the workshop is to present recent research results and to identify and explore directions of future research in the field of algorithm engineering. Previous meetings were held in Venice (1997), Saarbrücken (1998), London (1999), and Saarbrücken (2000).

Papers were solicited describing original research in all aspects of algorithm engineering including:

- Implementation, experimental testing, and fine-tuning of discrete algorithms.
- Development of software repositories and platforms which allow use of, and experimentation with, efficient discrete algorithms.
- Novel uses of discrete algorithms in other disciplines and the evaluation of algorithms for realistic environments.
- Methodological issues including standards in the context of empirical research on algorithms and data structures.
- Methodological issues regarding the process of converting user requirements into efficient algorithmic solutions and implementations.

The Program Committee selected 15 papers from a total of 25 submissions from 17 countries, according to selection criteria, taking into account paper originality, quality, and relevance to the workshop.

WAE 2001 was jointly organized with ESA 2001 (the 9th European Symposium on Algorithms) and WABI 2001 (the 1st Workshop on Algorithm in BioInformatics) in the context of ALGO 2001. ALGO 2001 had seven invited talks most of which were relevant to WAE 2001. The seven distinguished invited speakers of ALGO 2001 were:

Susanne Albers University of Dortmund
Lars Arge Duke University
Andrei Broder AltaVista
Herbert Edelsbrunner Duke University
Jotun Hein University of Aarhus
Gene Myers Celera Genomics
Uri Zwick Tel Aviv University

We want to thank all the people who contributed to the success of the workshop: those who submitted papers for consideration; the program committee members and the referees for their timely and invaluable contribution; the invited speakers of ALGO 2001; the members of the organizing committee for their
dedicated work; BRICS (the center for Basic Research In Computer Science, University of Aarhus) and EATCS (the European Association for Theoretical Computer Science) for financial support. We also thank ACM SIGACT (the Association for Computing Machinery Special Interest Group on Algorithms and Computation Theory) for providing us the software used for handling the electronic submissions and the electronic program committee meeting.

June 2001

Gerth Stølting Brodal
Daniele Frigioni
Alberto Marchetti-Spaccamela
Program Committee

Ulrik Brandes  University of Konstanz
Paolo Ferragina  University of Pisa
Klara Kedem  Ben-Gurion University
Alberto Marchetti-Spaccamela (Chair)  University of Rome “La Sapienza”
Bernard M. E. Moret  University of New Mexico
Mark Overmars  Utrecht University
Stefan Schirra  Think & Solve, Saarbrücken
Monique Teillaud  INRIA - Sophia Antipolis

Organizing Committee

Gerth Stølting Brodal  BRICS - University of Aarhus
Rolf Fagerberg  BRICS - University of Aarhus
Daniele Frigioni  University of L’Aquila
Karen Kjær Møller  BRICS - University of Aarhus
Erik Meineche Schmidt (Chair)  BRICS - University of Aarhus

Additional Referees

Eitan Bachmat  Gabriele Di Stefano  Avraham Melkman
Amos Beimel  Ioannis Emiris  Linda Pagli
Serafino Cicerone  Antonio Frangioni  Marco Pellegrini
Valentina Ciriani  Daniele Frigioni  Andrea Pietracaprina
Fabrizio D’Amore  Roberto Grossi  Sylvain Pion
Frank Dehne  Matthew Katz  Nadia Pisanti
Camil Demetrescu  Jörg Keller  Eyal Shimony
Yefim Dinitz  Giovanni Manzini