Preface

This volume contains the papers accepted for the 4th *Workshop on Algorithm Engineering* (WAE 2000) held in Saarbrücken, Germany, during 5–8 September 2000, together with the abstract of the invited lecture given by Karsten Weihe. The Workshop on Algorithm Engineering covers research on all aspects of the subject. The goal is to present recent research results and to identify and explore directions for future research. Previous meetings were held in Venice (1997), Saarbrücken (1998), and London (1999).

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

– Development of software repositories and platforms which allow the 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 accepted 16 from a total of 30 submissions. The program committee meeting was conducted electronically. The criteria for selection were originality, quality, and relevance to the subject area of the workshop. Considerable effort was devoted to the evaluation of the submissions and to providing the authors with feedback. Each submission was reviewed by at least four program committee members (assisted by subreferees). A special issue of the ACM *Journal of Experimental Algorithmics* will be devoted to selected papers from WAE 2000.

We would like to thank all those who submitted papers for consideration, as well as the program committee members and their referees for their contributions. We gratefully acknowledge the dedicated work of the organizing committee, and the help of many volunteers. We thank all of them for their time and effort.

July 2001
Stefan Näher
Dorothea Wagner

Invited Lecturer

Karsten Weihe   Institut für Diskrete Mathematik, Bonn

Program Committee

Michael Goodrich   John Hopkins University
Dan Halperin   Tel Aviv University
Mike Jünger   Universität zu Köln
Thomas Lengauer   GMD Bonn
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Referees

Arne Andersson, Lars A. Arge, Stephen Aylward, Sanjoy Baruah, Mark de Berg, Hans L. Bodlaender, Matthias Buchheim, Adam Buchsbaum, Irit Dinur, Shlomo Dubnov, Matthias Elf, Martin Farach-Colton, Uriel Feige, Andrew Goldberg, Leslie Hall, Eran Halperin, Sariel Har-Peled, Han Hoogeveen, Kevin Jeffay, Lutz Kettner, Vladlen Koltun, Marc van Kreveld, Joachim Kupke, Olivier Lartillot, Frauke Liers, Bernard Moret, Michal Ozery, Oded Regev, A.F. van der Stappen, Cliff Stein, Sivan Toledo, Marinus Veldhorst, Remco Veltkamp, Bram Verweij, Karsten Weihe, Thomas Willhalm, Martin Wolff