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# Algorithms – ESA '97

5th Annual European Symposium  
Graz, Austria, September 15-17, 1997  
Proceedings



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# Preface

The 5th European Symposium on Algorithms (ESA'97) was held September 15–17, 1997, at Graz University of Technology. This volume contains all contributed papers presented at the symposium.

ESA was established in 1993 as a major annual event for all researchers interested in algorithms, theoretical as well as applied. This international symposium covers research in the use, design, and analysis of algorithms as it is carried out in computer science, discrete applied mathematics and mathematical programming, with emphasis on questions of efficiency. Papers have been solicited describing results in all fields of algorithm research, such as approximation algorithms, combinatorial optimization, computational biology, computational geometry, data compression, distributed computing, evolutionary algorithms, graph and network algorithms, neural computing, number theory and computer algebra, on-line algorithms, parallel computing, pattern matching, symbolic computation, and so on. ESA'93 took place in Germany (Bad Honnef), ESA'94 was held in The Netherlands (Utrecht), ESA'95 in Greece (Corfu), and ESA'96 in Spain (Barcelona). The proceedings of these meetings appeared, respectively, as Volumes 726, 855, 979, and 1136 in the Springer series Lecture Notes in Computer Science.

In response to the call for papers for ESA'97, the program committee received 112 submissions, indicating a strong and growing interest in the symposium. The program committee for ESA'97 consisted of

Giorgio Ausiello (Roma)	Rolf Möhring (Berlin)
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The program committee met on May 9 and May 10, 1997, in Graz and selected 38 contributed papers for inclusion in the scientific program of ESA'97. The selection was based on originality, quality, and relevance to the study of algorithms, and reflects many of the current directions in algorithm research. This was most probably the first meeting of a program committee in modern science that involved the rolling of a dice in combination with the usage of a compass, a voodoo doll, a pair of almost perfectly parallel mirrors, and a map of the southwestern part of the Kalahari. We wish to thank all those who submitted extended abstracts for consideration, and all subreferees and colleagues who helped in the

extensive evaluation process. The list of the referees is as complete as we could make it, and we apologize for any possible omissions or errors.

Many thanks are due to the organizing committee of ESA'97 for making the symposium possible. The organizing committee consisted of Rainer Burkard, Karin Hirschbichler, Bettina Klinz, Hermann Maurer, Angela Kompöck-Poller, Franz Rendl, Günter Rote, Klaus Schmaranz, and Gerhard Woeginger.

ESA'97 was conducted in cooperation with the European Association for Theoretical Computer Science (EATCS) and with the Mathematical Programming Society (MPS), and it was sponsored by the Austrian Ministry of Science, by Graz University of Technology, by the Province of Styria, and by the City of Graz.

Graz, September 1997

Rainer E. Burkard  
Gerhard J. Woeginger

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