

Lecture Notes in Computer Science

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New Results and New Trends in Computer Science

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Preface

This book is a record of the symposium “New Results and New Trends in Computer Science” that took place in Graz, Austria, June 20-21, 1991. The selection of papers presented should contain information of interest for computer scientists in almost every area.

Topics covered include: information on neural nets, ideas on a new paradigm for informatics, hypermedia systems and applications, axioms for concurrent processes, techniques for image generation and compression, the role of data-visualization, object-oriented programming and graphics, algorithms for layout compaction, new methods in database systems, a look at the future of data networks, object oriented artificial intelligence, problems in datastructures and sorting, aspects of user-interfaces, a theory of structures, applications of cryptography, evaluation of Ada, results in algorithmic geometry, remarks on the history of computers, and a novel interpretation of machine learning.

The reason for organizing the symposium “New Results and New Trends in Computer Science” was not to cover a specific subject area (as usual for symposia whose proceedings are published in the Springer LNCS series), but to allow me to bring together as many of my professional friends as possible on the occasion of my 50th birthday: I asked some of my best computer science friends from all over the world whether they would give (as a sort of birthday present) an invited talk at a symposium in Graz, and many from as far away as Holland, Finland, Canada and the USA were overwhelmingly kind and contributed to the meeting, making the symposium one of the best computer-science conferences we have ever had in Austria. I want to thank all of my friends who were willing to invest time and money either to come to Graz, be it as speaker, or as participant, or by submitting a paper to this book (three of the papers incorporated were not presented at the meeting and one presented at the meeting is not included in this book).

The symposium was, for me, a once-in-a-lifetime experience, each and every one of the speakers being a close personal friend of mine: with 18 of the 24 speakers I have co-authored some papers at some stage of my career (with some indeed quite a few), and with all I have had strong personal and professional ties for a long time. Fittingly, the symposium concluded with a one-day party with some 350 participants which I organized in a huge tent put up adjacent to where I live.

Let me finally also thank my staff in Graz for all the help in the organization, particularly M. Lampl and G. Pail. And, last not least, Springer-Verlag (and the editors, G. Goos and J. Hartmanis) for spontaneously agreeing to print this volume in the LNCS series.

I hope that everyone reading this book will get at least a little of the enjoyment out of it which I had while organizing the conference and listening to the superb presentations.

Graz, September 1991

H. Maurer

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