



**Arto Salomaa**

## Preface

This Festschrift celebrates the 70th birthday of Arto Kustaa Salomaa (born in Turku, Finland on June 6, 1934), one of the most influential researchers in theoretical computer science.

Most of his research concerns theory – he is one of the founding fathers of formal language and automata theory, but he has also made important contributions to cryptography and natural computing. His approach to research in theoretical computer science is exemplary and inspirational for his students, collaborators, and the readers of his papers and books. For him, the role of theory (in computer science) is to discover general rules of information processing that hold within computer science and in the world around us. One should not waste time on research concerning passing artifacts (or fashionable topics of the moment) in computer science – theory should be permanently predictive, insightful, and inspiring. That’s why we chose the title “Theory is Forever”.

The main source of his influence on theoretical computer science is his publications. Arto is a born writer – his papers and books are always most elegant. He has a unique gift for identifying the real essence of a research problem, and then presenting it in an incisive and eloquent way. He can write about a very involved formal topic and yet avoid a (much too common) overformalization. Many of his writings are genuine jewels and belong to the classics of theoretical computer science. They have inspired generations of students and researchers. Indeed, even computers as well as computer science have learned a lot from Arto’s publications – this is nicely illustrated by DADARA on the cover of this volume. His writing talent extends beyond science – he writes beautiful and engaging stories, and his close friends very much enjoy receiving his long, entertaining and informative letters.

There is much other information that could be cited in this preface, such as the fact that he is one of the most celebrated computer scientists (e.g., he holds eight honorary degrees), or that he has been very instrumental in providing the organizational infrastructure for theoretical computer science in Europe (e.g., he is the past President of the European Association for Theoretical Computer Science), or that he is an absolute authority on the Finnish sauna (including both theory and practice). However, all of these accomplishments have been documented already in many places (e.g., in the companion book “Jewels are Forever”<sup>1</sup> published on the occasion of Arto’s 65th birthday). Thus we have restricted ourselves to reflections on his research and writings.

We are indebted to all the contributors for their tribute to Arto through this book. We ourselves have benefited enormously through many years of collabo-

---

<sup>1</sup> J. Karhumäki, H. Maurer, G. Păun, G. Rozenberg, *Jewels are Forever, Contributions on Theoretical Computer Science in Honor of Arto Salomaa*, Springer-Verlag, 1999.

## VIII Preface

ration with Arto from his guidance and friendship – editing this volume is just a token of our gratitude. We are also indebted to Mrs. Ingeborg Mayer from Springer-Verlag for the pleasant and efficient collaboration in producing this volume. As a matter of fact this collaboration is quite symbolic, as Arto has worked very closely with Springer-Verlag, especially with Mrs. Ingeborg Mayer and Dr. Hans Wössner, on many projects over many years. Finally, our special thanks go to T. Harju, M. Hirvensalo, A. Lepistö, and Kalle Saari for their work on this book.

April 2004

Juhani Karhumäki  
Hermann Maurer  
Gheorghe Păun  
Grzegorz Rozenberg

Theory Is Forever

Essays Dedicated to Arto Salomaa on the Occasion of  
His 70th Birthday

Karhumäki, J.; Maurer, H.; Paun, G.; Rozenberg, G. (Eds.)

2004, X, 286 p., Softcover

ISBN: 978-3-540-22393-1