Advances and Trends in Automata and Formal Languages
A Collection of Papers in Honour of the 60th Birthday of Helmut Jürgensen

J.UCS Special Issue

Cristian S. Calude
(Computer Science Department, The University of Auckland, Private Bag 92109
Auckland, New Zealand
Email: cristian@cs.auckland.ac.nz)

Kai Salomaa
(Department of Computing and Information Science, Queen's University
Kingston, Ontario, Canada K7L 3N6
Email: ksalomaa@cs.queensu.ca)

Sheng Yu
(Department of Computer Science, The University of Western Ontario
London, Ontario, Canada N6A 5B7
Email: syu@csd.uwo.ca)

Professor Jürgensen has been educated at the Universities of Kiel and Tübingen, Germany. His main subjects have been Greek, Latin, Mathematics and Indology. He has obtained the PhD Degree (Dr. phil.) with the Dissertation *Der Antike Metaphernbegriff* in 1968 and the *Habilitation* (Dr. rer. nat. habil.), with the Habilitationsschrift *Rees-Kerne und Vereinigungserweiterungen von Halbgruppen* in 1976, both from Kiel University. He started his academic career as a Research Associate in the Mathematics Department of Kiel University, then Professor (also Director of the Institute of Theoretical Computer Science and Dean of the Faculty of Computer Science) at Darmstadt University, Professor in the Computer Science Department and Honorary Professor in the Mathematics Department of the University of Western Ontario, Canada and Professor in the Computer Science Department of Potsdam University, Germany.

Professor Jürgensen has worked in computational algebra, theory of programming languages, semigroup theory, probabilistic L-systems, mathematical linguistics, formal language theory, ω-languages, automata theory, machine testing, coding and cryptography, TEX-nical and computerized Braille typesetting, algorithmic information theory and incompleteness. He published almost 200 papers and books in these areas.

Professor Jürgensen is not only a prolific researcher, but also a dedicated teacher and supervisor. He has supervised 19 PhD students (6 under current supervision), 86 Masters Theses (or similar, 5 under current supervision) and 23 Undergraduate Theses.

Professor Jürgensen was a referee and reviewer for many conferences and funding agencies in Canada, Europe, Japan, New Zealand, USA. He has served on the editorial boards of several journals, including *Acta Cybernetica, Journal of Information and Optimization Sciences, Soochow Journal of Mathematics,*

Journal of Universal Computer Science, Journal of Computing and Information and on the advisory editorial board of the Springer-Verlag book Series *Discrete Mathematics and Theoretical Computer Science.*

Professor Jürgensen's personality, his catalytic qualities are as impressive and influential as his scientific and teaching activities. Everybody who had the chance to work with him was marked by his presence – and this is the case with most collaborators to this volume. We all wish him **A Very Happy Birthday!**

C.S. Calude, K. Salomaa, S. Yu
Auckland, Kingston and London