Preface

This volume contains the proceedings of AMAST 2004, the 10th International Conference on Algebraic Methodology and Software Technology, held during July 12–16, 2004, in Stirling, Scotland, UK. The major goal of the AMAST conferences is to promote research that may lead to the setting of software technology on a firm, mathematical basis. This goal is achieved by a large international cooperation with contributions from both academia and industry. The virtues of a software technology developed on a mathematical basis have been envisioned as being capable of providing software that is (a) correct, and the correctness can be proved mathematically, (b) safe, so that it can be used in the implementation of critical systems, (c) portable, i.e., independent of computing platforms and language generations, and (d) evolutionary, i.e., it is self-adaptable and evolves with the problem domain.

Previous AMAST meetings were held in Iowa City (1989, 1991, 2000), Twente (1993), Montreal (1995), Munich (1996), Sydney (1997), Manaus (1999), and Reunion Island (2002), and contributed to the AMAST goals by reporting and disseminating academic and industrial achievements within the AMAST area of interest. During these meetings, AMAST attracted an international following among researchers and practitioners interested in software technology, programming methodology and their algebraic and logical foundations.

For AMAST 2004 there were 63 submissions of overall high quality, authored by researchers from Australia, Canada, China, the Czech Republic, Denmark, France, Germany, India, Iran, Israel, Italy, Korea, Portugal, Spain, Taiwan, The Netherlands, Turkey, the UK, and the USA. All submissions were thoroughly evaluated, and an electronic program committee meeting was held to discuss the reviewers' reports. The program committee selected 35 papers to be presented. This volume includes these papers, and abstracts or papers of invited lectures given by Roland Backhouse, Don Batory, Michel Bidoit, Muffy Calder, Bart Jacobs, and John-Jules Meyer.

We heartily thank the members of the program committee and all the referees for their care and time in reviewing the submitted papers, and all the institutions that supported AMAST 2004: the Edinburgh Mathematical Society, the Engineering and Physical Sciences Research Council, the London Mathematical Society, and the Formal Aspects of Computing Science specialist group of the British Computer Society.

May 2004

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