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Algebraic Methodology and Software Technology

13th International Conference, AMAST 2010
Lac-Beauport, QC, Canada, June 23-25, 2010
Revised Selected Papers

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Preface

This volume contains the papers presented at AMAST 2010: the 13th International conference on Algebraic Methodology and Software Technology. 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. Toward this goal, the conference supports a broad cooperation between academia and industry. The virtues of a software technology developed on a mathematical basis include the provision of software that is:

1. Correct, and the correctness can be proved mathematically
2. Safe, so that it can be used in the implementation of critical systems
3. Portable, i.e., independent of computing platforms and language generations
4. Evolutionary, i.e., it can be self-adaptable and evolves with the problem domain
5. Secure, so that its network and user interactions can be predicted and controlled

The previous editions of the AMAST Conference were held at Iowa City (1989, 1991), Twente (1993), Montreal (1995), Munich (1996), Sydney (1997), Manaus (1999), Iowa City (2000), Reunion Island (2002), Stirling (2004), Saaremaa (2006) and Urbana-Champaign (2008). Each conference over the last fifteen years was accompanied by a proceedings volume, published in the Springer *Lecture Notes in Computer Science* series.

This 13th edition of AMAST took place during June 23–26, 2010 in Lac-Beauport, in Québec, Canada. It was collocated with MPC 2010: the 10th International Conference on Mathematics of Program Construction, held during June 21–23, 2010. There were 33 submissions. Each submission was reviewed by at least three, and on the average 3.9, Program Committee members. The committee decided to accept ten full-length research presentations and four system demonstrations. The program also included two invited talks, given by Jane Hillston (Edinburgh University), and Catuscia Palamidesi (INRIA). Jane Hillston also provided a paper for Part 1 of this volume. The contributed research papers are in Part 2 and Part 3 contains the system demonstrations.

We are grateful to the members of the Program Committee and the external referees for their care and diligence in reviewing the submitted papers, and to the staff of Springer-Verlag. The review process and compilation of the proceedings were greatly helped by Andrei Voronkov's EasyChair system.

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