

Non-Classical Models of Automata and Applications V

Preface

Many non-classical models of automata are natural objects of theoretical computer science. They are studied from different points of view in various areas, both as theoretical concepts and as formal models for applications. The Fifth Workshop on Non-Classical Models of Automata and Applications (NCMA 2013) was organized in order to provide an opportunity for researchers who work on different aspects of non-classical models of automata and related subjects to exchange and discuss new ideas and recent developments.

The first workshop on Non-Classical Models of Automata and Applications, NCMA 2009, was held in Wrocław, Poland, in 2009 as a satellite event of the International Symposium on Fundamentals of Computation Theory (FCT 2009). It was sponsored by the AutoMathA project of the European Science Foundation (ESF). The second workshop, NCMA 2010, was held in Jena, Germany, as an associated workshop of the Conference on Membrane Computing (CMC 2010), the third workshop, NCMA 2011, was organized at the Università degli Studi di Milano, Milan, Italy, in close proximity to the 15th Conference on Developments in Language Theory (DLT 2011), and the fourth workshop, NCMA 2012, was held in Fribourg, Switzerland. The fifth workshop, NCMA 2013, took place in Umeå, Sweden, on August 13 and 14, 2013. It was again a scientifically valuable event with very interesting presentations and stimulating discussions, leading to new investigations and scientific cooperations in the area of (non-classical) models of automata and applications.

NCMA 2013 was sponsored by the Faculty of Science and Technology and the Department of Computing Science of the University of Umeå. Special thanks go to the invited speakers Erzsébet Csuhaj-Varjú (Eötvös Loránd University, Budapest, Hungary) and Kai Salomaa (Queen's University, Kingston, Ontario, Canada) for accepting our invitation and presenting their recent results at NCMA 2013.

In addition to the invited contributions, 24 papers were submitted by a total of 50 authors from 13 different countries. Based on three referee reports each, the program committee selected 14 papers that were presented at the workshop. We thank the members of the Program Committee for their excellent work in making this selection:

Suna Bensch (Umeå, Sweden, Co-Chair),
Henning Bordihn (Potsdam, Germany),
Frank Drewes (Umeå, Sweden, Co-Chair),

Jérôme Durand-Lose (Orléans, France),
Mika Hirvensalo (Turku, Finland),
Mario de Jesús Pérez Jiménez (Sevilla, Spain),
Martin Kutrib (Giessen, Germany),
Florin Manea (Kiel, Germany),
Peter Leupold (Leipzig, Germany),
Andreas Maletti (Stuttgart, Germany),
František Mráz (Prague, Czech Republic),
Friedrich Otto (Kassel, Germany, Co-Chair),
Beatrice Palano (Milan, Italy),
Daniel Reidenbach (Loughborough, Great Britain),
Rogério Reis (Porto, Portugal),
Bianca Truthe (Magdeburg, Germany),
György Vaszil (Debrecen, Hungary), and
Mikhail Volkov (Yekaterinburg, Russia).

We are grateful to the University of Umeå, in particular the Faculty of Science and Technology and the Department of Computing Science, for their support in the local organization of NCMA 2013 and to the Institute of Computing Languages of the Vienna University of Technology for covering the printing costs of the proceedings of NCMA 2013, which appeared as volume 294 in the series “books@ocg.at” of the Austrian Computer Society.

The authors of selected papers were invited to submit substantially enhanced versions of their papers to this special issue. Each paper was reviewed independently by at least two experts, and, if necessary, revised by the authors. We are grateful to all authors for their contributions and to all reviewers for their help, without which we would not have been able to complete this issue. We would also like to express our thanks to Damian Niwinski, the Editor-in-Chief of *Fundamenta Informaticae*, and to the editorial staff for their support.

Special issue editors

Suna Bensch
Umeå University

Frank Drewes
Umeå University

Mika Hirvensalo
University of Turku

Friedrich Otto
Universität Kassel