

## PREFACE

The 4th Workshop on *Non-Classical Models of Automata and Applications* (NCMA 2012) was held at the University of Fribourg, Switzerland, on August 23rd and 24th, 2012. Many classical and non-classical automata models 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. A deeper and interdisciplinary coverage of this particular area may lead to new insights and substantial progress. Previous NCMA were held in Wrocław (2009), Jena (2010), and Milano (2011) and had been organized in order to bring together researchers working on different aspects of various variants of non-classical automata models to exchange and develop novel ideas. As in previous years, also the fourth workshop was a scientifically valuable event, again, with very interesting discussions, stimulating new investigations and scientific co-operations in the field of (non-classical) models of automata and applications. This will be followed by the next NCMA in Umeå (2013).

The workshop NCMA 2012 was partially supported by the University of Fribourg and the Technische Universität Wien. Special thanks go to the invited speakers Jürgen Dassow (Otto-von-Guericke-Universität Magdeburg, Germany) and Giovanni Pighizzini (Università degli Studi di Milano, Italy) for accepting our invitation and presenting their recent results at NCMA 2012 in Fribourg.

In addition to the invited contributions, papers were submitted by a total of 25 authors from 9 different countries. From these submissions, on the basis of three referee reports each, the Program Committee selected 13 papers. We thank the members of the Program Committee for their excellent work in making this selection: Suna Bensch (Umeå University, Sweden), Henning Bordihn (Universität Potsdam, Germany), Christian Choffrut (Université Paris Diderot, France), Erzsébet Csuhaj-Varjú (Academy of Sciences and Eötvös Loránd University, Hungary), Rudolf Freund (Technische Universität Wien, Austria), Dominik D. Freydenberger (Universität Frankfurt, Germany), Villiam Geffert (P. J. Šafárik University, Košice, Slovakia), Markus Holzer (Universität Giessen, Germany), Andreas Malcher (Universität Giessen, Germany), Florin Manea (Universität Kiel, Germany and University of Bucharest, Romania), Carlo Mereghetti (Università

degli Studi di Milano, Italy), František Mráz (Charles University, Prague, Czech Republic), Joachim Niehren (INRIA, France), Marion Oswald (Technische Universität Wien, Austria), Beatrice Palano (Università degli Studi di Milano, Italy), Dana Pardubská (University of Bratislava, Slovakia), Kai Salomaa (Queen's University, Canada), Petr Sosík (University of Opava, Czech Republic), Bianca Truthe (Universität Magdeburg, Germany), and Ulrich Ultes-Nitsche (University of Fribourg, Switzerland).

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The authors of selected papers were invited to submit substantially enhanced versions of their papers to this special issue; each paper was reviewed and if necessary revised by the authors. We are grateful to all the authors for their contributions and all the referees for their reports and efforts. We would also like to express our thanks to Christian Choffrut, the Editor-in-Chief of the journal, and to RAIRO-Theoretical Informatics and Applications Editorial Staff, in particular Muriel Bouquant, for their support to realize this special issue.

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