Preface

This volume contains the papers presented at the 22nd International Workshop on Cellular Automata and Discrete Complex Systems, AUTOMATA 2016. The conference was held at the University of Zurich, Switzerland, June 15–17, 2015. AUTOMATA 2016 was an IFIP event of IFIP Working Group 1.5.

The AUTOMATA series began in Dagstuhl, Germany, in 1995 and has since been run yearly, appearing in Europe, North and South America, and Asia. As with previous editions of the series, AUTOMATA 2016 provided a focal point for researchers interested in cellular automata and related discrete complex systems where they could exchange ideas, present their latest research, and forge new collaborative partnerships. The AUTOMATA series is concerned with research on all fundamental aspects of cellular automata and related discrete complex systems. Topics of interest include: dynamics, topological, ergodic and algebraic aspects, algorithmic and complexity issues, emergent properties, formal language processing, symbolic dynamics, models of parallelism and distributed systems, timing schemes, phenomenological descriptions, scientific modeling, and practical applications.

We would like to express our appreciation to the invited speakers, Klaus Sutner, Guillaume Theyssier, Tommaso Toffoli, and Andrew Winslow. We also thank them for their contributions to this volume.

We thank all the authors who submitted to AUTOMATA 2016. There were 23 submissions in total. Each paper was assigned to three members of the Program Committee and following a complete reviewing process and subsequent discussion by the committee 12 papers were accepted for publication in these proceedings. In addition, there were a number of exploratory papers presented at the conference and we would like to take this opportunity to thank those who submitted to the exploratory track.

We thank the Program Committee for their diligent work, and the reviewers who assisted in the evaluation of papers. We would like to thank the AUTOMATA Steering Committee for giving us the opportunity to host AUTOMATA 2016 at the University of Zurich and for their invaluable advice and support with a special thank you to Jarkko Kari and Pedro de Oliveira. We are grateful to the Lecture Notes in Computer Science team of Springer for all their help in preparing this volume. Finally, we would like to thank iniForum and the administrative staff at the Institute of Neuroinformatics for their help in organizing this event, in particular Kathrin Aguilar Ruiz-Hofacker, Maik Berchten, David Lawrence, and Simone Schumacher, who were always ready to provide advice and assistance.

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