

Preface

The 23rd International Workshop on Cellular Automata and Discrete Complex Systems, AUTOMATA 2017, was held in Milan, Italy, during June 7–9, 2017.

It was organized by the Department of Informatics, Systems, and Communication of the University of Milano-Bicocca. The event was an IFIP Working Conference and it hosted the annual meeting of the IFIP Working Group 1.5.

AUTOMATA 2017 continued an annual series of events established in 1995 as a forum for the collaboration between researchers in the field of cellular automata and related discrete complex systems. Over the years, the topics have been progressively expanded. This year the scope was further broadened including new topics concerning correlated models of automata.

Current topics include (but are not limited to) the following aspects and features of such systems: dynamics, topological, ergodic, and algebraic aspects, algorithmic and complexity issues, emergent properties, formal languages, symbolic dynamics, tilings, models of parallelism and distributed systems, timing schemes, synchronous versus asynchronous models, phenomenological descriptions, scientific modelling, and practical applications. The conference attracted a good number of submissions, which indicates a continued interest in these topics.

There were three invited talks at the conference, and we wish to thank the speakers Eric Goles, Adrien Richard, and Ville Salo for accepting the invitation and for their very interesting presentations. The invited contributions are included in this volume.

There were 29 submissions as full papers to the conference. Each submission was managed by two or three Program Committee members. Based on the reviews and discussions, the committee decided to accept 14 papers to be presented at the conference and to be included in the proceedings. We would like to thank all authors for their contributions and work without which this event would not have been possible. The conference program also involved short presentations of exploratory papers that are not included in these proceedings, and we wish to extend our thanks also to the authors of the exploratory submissions.

We are indebted to the Program Committee and the additional reviewers for their valuable help in selecting the papers. We extend our thanks to the remaining member of the local Organizing Committee, Luca Mariot. We are also grateful for the support by the Department of Informatics, Systems and Communication and the University of Milano-Bicocca. Finally, we acknowledge the excellent cooperation from the *Lecture Notes in Computer Science* team of Springer for their help in producing this volume in time for the conference.

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Alberto Dennunzio
Enrico Formenti
Luca Manzoni
Antonio E. Porreca

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Dennunzio, A.; Formenti, E.; Manzoni, L.; Porreca, A.E.

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