AUTOMATA 2014 is the 20th International Workshop on Cellular Automata and Discrete Complex Systems and continues a series of events established in 1995. AUTOMATA is an annual workshop and aims of the workshop are:

- To establish and maintain a permanent, international, multidisciplinary forum for the collaboration of researchers in the field of Cellular Automata (CA) and Discrete Complex Systems (DCS).
- To provide a platform for presenting and discussing new ideas and results.
- To support the development of theory and applications of CA and DCS (e.g. parallel computing, physics, biology, social sciences, and others) as long as fundamental aspects and their relations are concerned.
- To identify and study within an inter- and multidisciplinary context, the important fundamental aspects, concepts, notions, and problems concerning CA and DCS.

AUTOMATA 2014, held in Himeji, Japan, from July 7 to 9, 2014, is the result of cooperation of the institutions of the members of the Organizing Committee, i.e., Hiroshima University, the National Institute of Information and Communications Technology (NICT), Osaka Electro-Communication University, and University of Hyogo, Himeji.

The volume contains papers for three invited talks and ten accepted papers of AUTOMATA 2014. We thank all authors for their contributions. We are grateful to all members of the Program Committee for selecting the accepted papers.

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