

ACRI 2014 Main Track



Tuesday September, 23th	
08.45	ACRI 2014 Opening – Rector of AGH University Chairs: J. Waś, G. Ch. Sirakoulis
09.10	Invited talk: Andrew Adamatzky (S. Bandini)
CA Theory I (T. Worsch)	
10.00	Jan Baetens and Bernard De Baets. <i>Towards a comprehensive understanding of multi-state cellular automata</i>
10.25	Martin Kutrib and Andreas Malcher. <i>Iterative Arrays with Set Storage</i>
10.50	Mio Kobayashi. <i>Isotropic Cellular Automaton for Excitable Media with Random Neighbor Selection</i>
11.15	Coffee break
CA Theory II (B. Chopard)	
11.40	Shigeru Ninagawa and Genaro Martinez. <i>Power Spectral Analysis of the Computation Process by Rule 110</i>
12.05	Toshikazu Ishida, Shuichi Inokuchi and Yasuo Kawahara. <i>Cellular Automata and Formulae on Monoids</i>
12.30	Shamit Ghosh, Abhrajit Sengupta, Dhiman Saha and Dipanwita Roy Chowdhury. <i>A Scalable Method for Constructing Non-Linear Cellular Automata with Period $2^m - 1$</i>
12.55	Dominique Désérable. <i>Systolic Dissemination in the Arrowhead Family</i>
13.20	Lunch
CA dynamics and synchronization I (D. Roychowdhury)	
14.30	Gregor Chliamovitch, Bastien Chopard and Alexandre Dupuis. <i>On the Dynamics of Multi-Information in Cellular Automata</i>
14.55	Wouter Van der Meeren, Jan Baetens and Bernard De Baets. <i>Lyapunov exponents of one-dimensional stochastic cellular automata</i>
15.20	Nazma Naskar, Sumit Adak, Pradipta Maji and Sukanta Das. <i>Synthesis of Non-uniform Cellular Automata having Only Point Attractor</i>
15.55	Gianpiero Cattaneo, Giampiero Chiaselotti, Alberto Dennunzio, Enrico Formenti and Luca Manzoni. <i>Non uniform Cellular Automata Description of Signed Partition Versions of Ice and Sand Pile Models</i>
16.20	Coffee break
CA dynamics and synchronization II (J. Baatens)	
16.50	Ramon Alonso-Sanz. <i>Variable entangling in a quantum battle of the sexes cellular automaton</i>
17.15	Luidnel Maignan and Jean-Baptiste Yunès. <i>Experimental Finitization of Infinite Field-based Generalized FSSP Solution</i>
17.40	Nirmalya Sundar Maiti, Soumyabrata Ghosh and Parimal Pal Chaudhuri. <i>Cellular Automata (CA) Model for Primality Test</i>
18.40	Excursion

Wednesday September, 24th	
Modelling and Simulation I (W. Dzwiniel)	
09.00	Konrad Perzyński, Mateusz Sitko and Lukasz Madej. <i>Numerical modelling of fracture based on coupled cellular automata finite element approach</i>
09.25	Anastasia Kireeva. <i>Two-layer CA Model for Simulating Catalytic Reaction at Dynamically Varying Temperature</i>
09.50	Lukasz Bartosik, Janusz Stafiej and Dung Di Caprio. <i>Modelling ordered nanoporous structures by anodization via cellular automata</i>
10.15	Guillermo Machado Sotomayor, Valeria Lupiano, Maria Vittoria Avolio and Salvatore Di Gregorio. <i>A First Cellular Automata Model for Secondary Lahars and Simulation of 2005 Case of Vascún Valley, Ecuador</i>
10.40	P. Chatziagorakis, C. Elmasides, G. Ch. Sirakoulis, I. Karafyllidis, I. Andreadis, N., Georgoulas, D. Giaouris, A. Papadopoulos, Ch. Ziogou, D. Ipsakis, P. Seferlis, S. Papadopoulou, F. Stergiopoulos and P. Voutetakis. <i>Cellular Automata model with Game Theory for Power Management of Hybrid Renewable Energy Smart Grids</i>
11.15	Coffee break
Modelling and Simulation II (S. Di Gregorio)	
11.40	Witold Dzwiniel and Krzysztof Magiera. <i>A Novel Algorithm for Coarse-Graining of Cellular Automata</i>
12.05	Soumyabrata Ghosh, Nirmalya Maiti and Parimal Pal Chaudhuri. <i>Cellular Automata Model for Protein Structure Synthesis</i>
12.30	Baki Cissé, Samira El Yacoubi and Sébastien Gourbière. <i>The basic reproduction number for Chagas disease transmission using cellular automata</i>
12.55	Rafal Golab, Mateusz Sitko, Joanna Szyndler and Lukasz Madej. <i>Cellular automata finite element approach for modelling microstructure evolution under thermo-mechanical processing conditions</i>
13.20	Lunch
CA-Based Hardware and Computing (N. Fatès)	

14.30	Daniel Morrison and Irek Ulidowski. <i>Direction-Reversible Self-Timed Cellular Automata for Delay-Insensitive Circuits</i>
14.55	Vaclav Simek, Richard Ruzicka, Adam Crha and Radek Tesar. <i>Implementation of a Cellular Automaton with Globally Switchable Rules</i>
15.20	Ayan Palchadhuri, Rajat Subhra Chakraborty, Mohammad Salman, Sreemukh Kardas and Debdeep Mukhopadhyay. <i>Highly Compact Automated Implementation of Linear CA on FPGAs</i>
15.55	Dimitrios Stathis, Ioannis Vourkas and Georgios Ch. Sirakoulis. <i>Shortest Path Computing Using Memristor-Based Circuits and Cellular Automata</i>
16.20	Coffee break
Modelling and Simulation III (G.Vizzari)	
16.50	Francesco Gullace, Maria Vittoria Avolio and Salvatore Di Gregorio. <i>UNDATA: a Preliminary Cellular Automata Model for Tsunami Simulation</i>
17.15	Arne Eide. <i>Modelling spatial distribution of the Barents Sea cod fishery</i>
17.40	Ivan Blečić, Arnaldo Cecchini and Giuseppe A. Trunfio. <i>Training Cellular Automata to Forecast Urban Dynamics: a Computational Study based on GPGPU and Swarm Intelligence</i>
18.05	Krzysztof Malarz, Krzysztof Kułakowski. An influence of unexpected events on our timetables investigated by means of an agent -based cellular automaton
18.30	Stathis Delivorias, Haralampos Hatzikirou, Rafael Peñaloza and Dirk Walther. Detecting Emergent Phenomena in Cellular Automata using Temporal Description Logics
20:00	Social dinner

Thursday September, 25th	
09.00	Invited speaker : Gabriel A. Wainer (K.Nishinari)
Modelling and Simulation IV (S. El Yacoubi)	
10.00	Takumi Masuda, Katsuhiko Nishinari and Andreas Schadschneider. <i>Cellular Automaton Approach to Arching in Two-Dimensional Granular Media</i>
10.25	Seiya Yamagishi and Shin Morishita. <i>Modeling of Friction Dynamic Motion by Cellular Automata</i>
10.50	Gergely Kocsis and Imre Varga. <i>Agent based simulation of spreading in social-systems of temporarily active actors</i>
11.15	Coffee break
Cryptography, Networks and Pattern Classification with CAs (F. Seredynski)	
11.40	Sung-Jin Cho, Han-Doo Kim, Un-Sook Choi, Seok-Tae Kim, Jin-Gyoung Kim, Sook-Hee Kwon and Gil-Tak Gong. <i>Generation of TPMACA for Pattern Classification</i>
12.05	Luca Mariot and Alberto Leporati. <i>Sharing Secrets by Computing Preimages of Bipermutive Cellular Automata</i>
12.30	Jimmy Jose, Sourav Das and Dipanwita Roy Chowdhury. <i>Inapplicability of Fault Attacks against Trivium on a Cellular Automata Based Stream Cipher</i>
12.55	Antonina Tretyakova, Franciszek Seredyński and Pascal Bouvry. <i>Cellular Automata Approach to Maximum Lifetime Coverage Problem in Wireless Sensor Networks</i>
13.10	Lunch
Modelling and Simulation V (G.Trunfio)	
14.30	Omar Jellouli, Abdessamed Bernoussi, Mina Amharref and Samira El Yacoubi. <i>Protector Control: Cellular Automata approach with an application to forest fire</i>
14.50	Moisés Espínola, José Antonio Piedra, Rosa Ayala, Luis Iribarne and Saturnino Leguizamón. <i>Modeling Rainfall Features Dynamics in a DEM Satellite Image with Cellular Automata</i>
15.10	Cristian Felipe Pérez Brokate, Dung Di Caprio, Damien Féron, Jacques De Lamare and Annie Chaussé. <i>Overview of Cellular Automaton Models for Corrosion</i>
15.30	William Kretschmar and Ilkka Juuso. <i>Cellular Automata for Modeling Language Change</i>
15.50	Norbert Sendra and Tomasz Gwizdała. <i>Sznajd model with memory</i>
16.10	Coffee break
16.40	ACRI 2014 Closing – J. Waś, G. Ch. Sirakoulis

Poster Session

September 23th and September 24th 2014	
16.20	<i>Poster Session opening</i>
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16.50	<i>Poster Session closure</i>

