

The conference venue:

Gdańsk University,

Faculty of Mathematics, Physics and Computer Science,

Gdańsk, Wita Stwosza 57, First floor, Lecture Hall 3

Monday, 22nd June

9.00 - conference opening

by Prof. W.Adam Majewski – Dean of Faculty

9.05 -11.00

Marian Boguna (Universitat de Barcelona) *From lattices to small-worlds and back again, or how we got rid of the Euclidean geometry to fall*

José Fernando Mendes (University of Aveiro) *Percolation on correlated networks*

Zdzislaw Burda (Institute of Physics, Jagiellonian University) *Localization of maximal entropy random walk*

11.00-11.30 *Coffee break*

11.30-13.30

Santo Fortunato (ISI Foundation) *Community detection: the importance of testing*

M. Angeles Serrano (Universitat de Barcelona) *Rich-club vs rich-multipolarization phenomena in weighted networks*

Franco Bagnoli (University of Florence) *Small world bifurcations in an opinion model*

13.30-15.00 *Lunch break*

15.00-16.20

Agata Fronczak (Warsaw University of Technology, Faculty of Physics) *Fluctuation scaling in complex systems: examples and models*

Kimmo Kaski (Helsinki University of Technology) *Complex social networks ? can they be modeled?*

16.20-16.50 *Coffee break*

16.50-17.30

Andrzej Grabowski (Central Institute for Labour Protection – National, Warsaw) *Properties of on-line networks*

19.00 Conference dinner

Tuesday, 23rd June

9.00-11.00

Nazim Fatès (INRIA - Nancy Grand-Est - France) *Critical phenomena in cellular automata : changing the update, the topology, the transitions*

Andy Wuensche (University of Sussex, and DDLab) *Complex dynamics, basins of attraction, and memory in discrete networks*

Hiroshi Umeo (University of Osaka, Electro-Communication) *Generalized Firing Squad Synchronization Protocols for One-Dimensional Cellular Automata - A Survey*

11.00-11.30 *Coffee break*

11.30-13.30

Andreas Deutsch (Center for Information Services and High Performance) *Cellular automaton modelling of biological pattern formation*

Robert Kosiński (Wydział Fizyki, Politechnika Warszawska) *Active particles motion in evacuation processes modeling*

Bruno N. Di Stefano (Nuptek Systems Ltd) *Digital Laboratory of Agent-Based Highway Traffic Model*

13.30-15.00 *Lunch break*

15.00-17.00

Genaro Martinez (Bristol Institute Technology, University of the West of England) *Complex dynamics of cellular automata emerging from chaotic behavior*

Maciej Mrowiński (Wydział Fizyki, Politechnika Warszawska) *Synchronisation in one-dimensional cellular automata*

Graziano Barnabei (University of Florence) *Decisional Processes with Boolean Neural Network: the Emergence of Mental Schemes*

Krzysztof Bartoszek (Chalmers University of Technology and the University of Gothenburg) *Models of evolution, Evolutionary inference and patterns of influenza*

17.00-17.30 *Coffee break*

Poster session

Jeremi Ochab (Jagiellonian University, Cracow) *Synchronization of coupled oscillators in the local one-dimensional Kuramoto model*

Mirosław Szaban (University of Podlasie, Institute of Computer Science) *Dynamic Cellular Automata-based S-Boxes*

Maja Adamska-Szatko (AGH University of Science and Technology) *Surface Dynamic Process Simulation with the Use of Cellular Automata*

Witold Bołt, Marcin Dembowski (Gdańsk University) *Toward GPU-based cellular automata implementation*

Wednesday, 24th June

9.00-11.00

Rolf Hoffmann (Technical University of Darmstadt) *GCA-w: Global Cellular Automata with Write-Access*

Anna T. Lawniczka (University of Guelph) *Detection of DDoS Attacks Using Entropy and Study of Their Effects on Packet Traffic*

Pietro Lio (University of Cambridge) *Mathematical model of HIV superinfection and comparative drug therapy*

11.00-11.30 *Coffee break*

11.30-13.30

Niloy Ganguly (Indian Institute of Technology, Kharagpur) *Growth models of bipartite Networks*

Henryk Fuks (Brock University) *Vocabulary of human languages as a complex system*

Krzysztof Kułakowski (AGH – UST, Cracow) *Star-clique transformation and degree correlations in networks*

13.30-15.00 *Lunch break*

15.00-16.20

Guinevere Nell (The Heritage Foundation / George Mason University) *Entrepreneurship in a dynamic market*

Danuta Makowiec (Gdańsk University) *Modeling of intercellular connections in the sinoatrial node*

16.20 *Coffee break and conference closing*