

# ABSim&CA - Agent-Based Simulation & Cellular Automata

Second International Workshop, in the context of ACRI 2016, Fez  
(Morocco), September 5-8, 2016

<http://acri2016.univ-perp.fr/>

Chairs

Andreas Pyka

Institute of Economics: Innovation Economics  
University of Hohenheim, Stuttgart, Germany  
a.pyka@uni-hohenheim.de

Giuseppe Vizzari

Complex Systems and Artificial Intelligence Research Center  
University of Milano-Bicocca, Milano, Italy  
giuseppe-vizzari@disco.unimib.it

Jarosław Wąs

Department of Applied Computer Science,  
AGH University of Science and Technology, Krakow, Poland  
jarek@agh.edu.pl

## **Aims and scope**

Agent based approaches to the simulation of complex systems are nowadays very popular in different fields including urban planning, biology, social sciences and economics just to mention some significant examples. In many cases, models resulting from these research efforts include a representation of the environment in which agents are situated, other times the interactions among them can be characterised in terms of a (generally dynamic) network structure. These structures present a clear similarity to Cellular Automata or Automata Networks models. The latter, however, are characterized by a formal definition much more precisely constrained than agent based models and sometimes their application to specific simulations of complex systems pushes modelers to relax some of the fundamental constraints (e.g. synchronous cell update, uniform cell state and transition rule). This situation hinders the possibility to systematically compare and evaluate alternative approaches and, more generally, makes more difficult the communication and sharing of experiences, approaches and results. The aim of this workshop is to bring

together researchers interested in clarifying the relationships between these approaches, bringing together experiences and insights both in terms of clarifications on the theoretical and formal differences and similarities among the approaches but also on the feedbacks from applications in different research areas that can represent a more pragmatic contribution.

The workshop is addressed to both researchers active in the CA modeling and simulation application area, in domains even very far from computer science. However, also researchers analyzing fundamental aspects of CA models and the boundaries set by the formal constraints of the model are welcome. In addition to researchers traditionally already attending CA related events, this workshop aims at attracting researchers from disciplines like urban planning, biology, economics and social sciences that are interested in having a deeper understanding of the models they employ sometimes on daily basis.

### **Program Committee (tentative, to be confirmed)**

- Vincent Chevrier - Université de Lorraine, France
- Jan Dijkstra - Eindhoven University of Technology, Netherlands
- Alexis Drogoul - IRD, France
- Guy Engelen - Flemish Institute for Technological Research (VITO), Belgium
- Nazim Fatès - LORIA - INRIA Nancy, France
- Rolf Hoffmann - Technische Universität Darmstadt, Germany
- Andrea Roli - Alma Mater Studiorum - Università di Bologna, Italy
- Paul Torrens - University of Maryland, USA
- Mirko Viroli - Alma Mater Studiorum - Università di Bologna, Italy
- Roger White - Memorial University of Newfoundland, Canada

### **Submission and publication**

Authors are invited to submit papers according to two contribution categories -- full and short papers -- meant to provide a differentiation of the papers in terms of their length, depth and/or maturity. Papers must comply with the Springer-Verlag LNCS style (<http://www.springer.com/computer/lncs>) and the maximum length of 5 and 10 pages for short and full contributions, respectively.

Every paper will be reviewed by two members of a Programme Committee that will include researchers active in CA and agent-based modeling and simulation researches, but also researchers from other disciplines like social sciences and economics, urban planning, biology.

Papers can be submitted through the EasyChair conference management system installation accessible here: <https://easychair.org/conferences/?conf=absimca2016>

Accepted papers will be published by Springer-Verlag in the Lecture Notes in Computer Science (LNCS) series. Selected papers will be considered for publication in a Special issue of an international journal. They will contain refereed extended/improved versions of selected papers presented at the ABSim&CA Workshop.

## **Important Dates:**

- Paper submission deadline: April 10, 2016
- Notification of paper acceptance or rejection: May 10, 2016
- Final version of the paper for the proceedings: June 6, 2016

Workshop contact person:

Giuseppe Vizzari

Complex Systems and Artificial Intelligence Research Center

University of Milano-Bicocca,

[giuseppe.vizzari@disco.unimib.it](mailto:giuseppe.vizzari@disco.unimib.it)