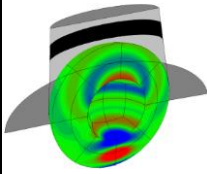# Agent-Based Simulations, Adaptive Algorithms and Solvers

The workshop in frames of the ICCS 2013
(International Conference on Computational Science), which holds in

Barcelona, Spain,

June 5 - June 7, 2013

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Scope

The aim of this workshop is to integrate results of different domains of computer science, computational science and mathematics.

We invite papers oriented toward simulations, either hard simulations by means of finite element or finite difference methods, or soft simulations by means of evolutionary computations, particle swarm optimization and other.

The workshop is most interested in simulations performed by using agent-oriented systems or by utilizing adaptive algorithms, but simulations performed by other kind of systems are also welcome.

Agent-oriented system seems to be the attractive tool useful for numerous domains of applications.

Adaptive algorithms allow significant decrease of the computational cost by utilizing computational resources on most important aspect of the problem.

To give - rather flexible - guidance in the subject, the following topics are suggested.
These of theoretical brand, like:
- multi-agent systems in high-performance computing,
- adaptive algorithms,
- adaptive solvers,
- agent-oriented approach to adaptive algorithms,
- mathematical modeling and asymptotic analysis,
- finite element or finite difference methods,
- mathematical modeling and asymptotic analysis.

 And those with stress on application sphere:
- application of adaptive algorithms in simulation,
- simulation and multi-agent systems,
- application of adaptive algorithms in finite element and finite difference simulations,
- application of multi-agent systems in computational modeling,
- multi-agent systems in integration of different approaches.

Language

The official language of the meeting is English.

Relevant information

The Workshop "Agents-Based Simulation, Adaptive Algorithms and Solvers" follows meetings which held in Kraków, Poland 2004, Atlanta 2005, Reading 2006 and Beijing 2007, Kraków 2008, Baton Rouge 2009, Amsterdam 2010 , Singapore 2011 and Omaha 2012 in frame on ICCS series of conferences:
2004 **-** http://www.cyfronet.krakow.pl/iccs2004/

2005 - http://dcl.mathcs.emory.edu/iccs/index.php?page=workshops_details#9

2006 - http://www.iccs-meeting.org/iccs2006/workshop-list.php#ws16

2007 - http://www.iccs-meeting.org/iccs2007/workshop-list.php#ws27

http://www.iccs-meeting.org/iccs2007/workshop-list.php#ws19

2008 - http://www.iccs-meeting.org/iccs2008

2009 - http://www.iccs-meeting.org/iccs2009

2010 - http://www.iccs-meeting.org/iccs2010

2011 - http://www.iccs-meeting.org/iccs2011

2012 - http://www.iccs-meeting.org/iccs2012

Call for papers

You are invited to submit a full paper (possible in draft version) of **10 pages** for oral presentation. Please, send electronic version to the address: iacs@agh.edu.pl and submit it using the following web page:

http://www.iccs-meeting.org/iccs2013/papers/upload.php

Please remember to select the Agent-Based Simulations, Adaptive Algorithms and Solvers Workshop.

Publication

Papers accepted for Workshops will be published in the ICCS 2013 Proceedings printed by Elsevier Science in the open-access Procedia Computer Science series (on-line and CD/USB stick).

Submission implies the willingness of at least one of the authors to register and present the paper.

The submitted paper must be camera-ready and formatted according to the rules of Procedia Computer Science.

For formatting information see:

http://www.elsevier.com/wps/find/journaldescription.cws_home/719435/description#description

The best papers from the Workshop will be published in Journal of Computational Science.

Fees

"Agents-Based Simulation, Adaptive Algorithms and Solvers" is a workshop in the framework of the ICCS 2013 Conference and the fee of the Conference is needed. Submission implies the willingness of at least one of the authors to register and present the paper.

Important dates:

Full papers submission	**December 15, 2012**
Notification of acceptance of papers	**February 14, 2013**
Camera ready papers	March 1, 2013
Early registration opens	February 10, 2013
Early registration closes	April 25, 2013