Multiscale Modelling and Simulation
11th International Workshop

in conjunction with the **International Conference on Computational Science**

June 10 - 12, 2014
Cairns, Australia

News!

Submission is now open! Papers need to be submitted through the ICCS submission system. For more details see below.

Introduction

Modelling and simulation of multiscale systems constitutes a grand challenge in computational science, and is widely applied in fields ranging from the physical sciences and engineering to the life science and the socio-economic domain. Most of the real-life systems encompass interactions within and between a wide range of spatio-temporal scales, and/or on many separate levels of organization. They require the development of sophisticated models and computational techniques to accurately simulate the diversity and complexity of multiscale problems, and to effectively capture the wide range of relevant phenomena within these simulations. Additionally, these multiscale models frequently need large scale computing capabilities as well as dedicated software and services that enable the exploitation of existing and evolving computational eco systems.

This workshop aims to provide a forum for multiscale application modellers, framework developers and experts from the distributed infrastructure communities to identify and discuss challenges in, and possible solutions for, modelling and simulating multiscale systems, as well as their execution on advanced computational resources.

This workshop is a successor of the series of workshops on Simulation of Multiphysics Multiscale Systems organized over the last 10 years.

Topics

Specific topics include (but are not limited to):

- Modelling of multiscale systems
- Novel approaches to combine different models and scales in one problem solution, scale bridging methods
- Challenging applications in science and society or in business
- Advanced numerical methods for solving multiscale problems
- Verification and validation of multiscale models, including error analysis
- Environments and frameworks for simulation of multiscale systems
- Executing multiscale models on advanced computational infrastructures (distributed, HPC, cloud, etc.)

Papers

We cordially invite you to submit a paper presenting the results of original research or innovative practical application in the area of modelling and simulation of multiscale systems.

Papers of up to 10 pages, written in English and complying with the Procedia format, should be submitted electronically through the ICCS submission engine.

When submitting your paper please don't forget to select the workshop: Multiscale Modelling and Simulation, and notify us by an email to SMMS@list.uva.nl.

More information on the format and templates can be found here.

Important dates

Full paper submission:	December 22, 2013
Notification of acceptance:	February 10, 2014
Camera-ready papers:	February 28, 2014
Author registration:	February 10 - March 5, 2014
Participant registration:	February 10 - April 25, 2014
Conference:	June 10 - 12, 2014

Other information

Here you can find more information on the venue and location.

Program Committee

This is the preliminary committee. More members are expected to be confirmed soon.

B. Boghosian, The American University of Armenia, Armenia
B. Chopard, University of Geneva, Switzerland
D. Coster, Max Planck Institute, Germany
W. Dubitzky, University of Ulster, UK
V. Ervin, Clemson University, USA
W. Funika, AGH Krakow, Poland
Y. Gorbachev, Geolink Systems LLC, Russia
D. Groen, University College London, UK
J. Harting, TU Eindhoven, NL
M. van der Hoef, University Twente, The Netherlands
A. Hoekstra, University of Amsterdam, NL
J. Jaros, Brno University of Technology, Czech Republic
S. Karabasov, Queen Mary University of London, UK
G. Karniadakis, Brown University, USA
R. Krause, Universita della Svizzera Italiana, CH

T. Krüger, University of Edinburgh, UK
K. Kurowski, PSNC, Poland
V.V. Krzhizhanovskaya, University of Amsterdam, NL
H. Lee, Clemson University, USA
E. Lorenz, University of Amsterdam, NL
S. MacLachlan, Tufts University, USA
R. Melnik, Wilfrid Laurier University, Canada
L. Mountrakis, University of Amsterdam, NL
F. Rogier, ONERA-CERT DTIM, France
F.-X. Roux, ONERA, France
K.J. Rycerz, Institute of Computer Science and ACK CYF, Poland
P. Strand, Chalmers University, SE
T. Tautges, Argonne National Laboratory, USA
S. Zasada, University College London, UK
A. Zhmakin, SoftImpact Ltd, Russia

Workshop Organizers

Workshop Chairs:	**Valeria Krzhizhanovskaya** and **Alfons Hoekstra** University of Amsterdam, The Netherlands Contact e-mail: SMMS@list.uva.nl
Co-chairs:	**Derek Groen**, University College London, UK **Eric Lorenz**, University of Amsterdam, NL

Previous Workshops

MCMS 2013
SMMS 2012
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