

## ICT AND COMPUTATIONAL SCIENCE

November 15-16, 2012

14:30 – 16:00

### PROPOSED THEMES / PROJECT IDEAS FOR DISCUSSION:

#### NL:

1. Supercomputing (especially – exascale computing and new supercomputing initiatives)
2. Data driven computing and technologies for complex systems' study and control.
3. Computational science for human and society (social computing).
4. Urgent computing and decision support in emergency situations.
5. Virtual reality for science, education and industry.
6. Information and communication technologies for sustainable development of large urban areas.

#### RUS:

1. Supercomputing
2. Decision Support Systems Based on Data Mining Technology
3. Internet of Things: research aimed at shaping architecture of the subject field, developing data transfer protocols and a universal software-hardware platform for the Internet of Things, which will serve as an agent between embedded systems and Web-technologies for business applications.
4. Mobility as energy balancing method for the wireless sensor networks .
5. Alternative energy-sources monitoring system for intralogistics.
6. Wireless motion capture system based on the wireless sensor networks technology and inertial sensors.
7. Methods of Resource Distribution in the Data Processing Centers Based on the Visualization of Storage Elements
8. Computer Network Architecture Generation Change
9. Software-Defined Networks (SDN)
10. Information Security
11. Methods, Algorithms and Tools Used in Real-Time Embedded Systems for Calculation Planning
12. Situation Modeling Stands
13. Computer System Fault Tolerance
14. Computer System Simulation Modeling
15. Organization of the 2nd International Young Researcher Conference on Supercomputing and Computer-Aided Modeling (8-13 April 2013, Saint-Petersburg). The 1st such Conference was held from 2 April to 6 April 2012 in Amsterdam. The Conference is organized in partnership with the Saint-Petersburg National Research University of Information Technologies, Mechanics and Optics and UvA.
16. Resilience engineering for high consequence system analysis, modeling and design risk-informed, performance-based management of building resilience vulnerability analysis for built environment under multi-hazard conditions
17. Computational science for human and society (social computing)

### COOPERATION FORMATS:

- Joint Master and PhD programs in Computational Sciences.
- Mobility of young researchers, including special events (schools etc.).
- Sustainable cooperation in education processes on the regular base (including network universities etc.).
- Events and tools for dissemination of the research experience (expert and reviewers bases, cooperation of scientific journals etc.)
- Initiative master program in Supercomputing and Computational Science (NRU ITMO – UvA) – replication of the success.
- International school for young computational scientists (April, 2013, St. Petersburg)
- Exchange of research experience (the problem of Flood barriers and prevention as an example).
- Software/hardware IT laboratories
- Joint participation in FP7-backed projects

### MODERATORS:

- Prof. dr. Peter Sloot, UvA/ Skolkovo Tech*  
*Prof. Ruslan Smelyanskiy, Moscow State University*

## **PARTICIPANTS:**

### **University**

Dutch Research Council  
University of Amsterdam  
FME-CWM, Business Association for the Technological industry  
DSM Company  
  
Tecnosteel Srl  
  
National Research Tomsk State University  
National Research Nuclear University MEPhI  
  
National Research University N.P.Ogarev Mordovia State University  
Southern Federal University  
  
National Research University Higher School of Economics  
  
Lomonosov Moscow State University  
St. Petersburg National Research University of Information Technologies,  
Mechanics and Optics  
State University Moscow Institute of Physics and Technology  
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Far Eastern Federal University  
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### **Name**

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## **VENUE:**

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