

International Conference on Computer Simulation in Physics and beyond

September 6-10, 2015, Moscow, Russia



ORGANIZED BY:

**National Research University Higher School of Economics
Science Center in Chernogolovka
Landau Institute for Theoretical Physics**



Computer simulations are fast growing approach for doing research in sciences. It is auxiliary to experimental and analytical research. The main goal of the conference is in the development of methods and algorithms which take into account trends in the hardware development, and which may help to intensive research. Conference should play role of the venue where senior scientists and students may have opportunity to speak each other and exchange ideas and views on the developments in the area of high-performance computing in most sciences.

KEYNOTE SPEAKERS:

Norbert Attig, Germany - *"Impacts of Current Hardware and Software Developments on Simulation Sciences"*

Bertrand Berche, France - *"Academic research groups: evaluation of their quality, quality of their evaluation"*

Alexander Bogdanov, Russia - *"Solution of Financial Mathematics Real-Time Problems by Virtual Supercomputer"*

Oleg Druzhinin, Russia - *"Numerical simulation of small-scale mixing processes in the upper ocean and atmospheric boundary layer"*

Hans Herrmann, Switzerland - *"Discontinuous Percolation"*

Chin-Kun Hu, Taiwan - *"Protein aggregation might not be related to protein misfolding"*

Nail Inogamov, Russia - *"Surface 3D nanostructuring by tightly focused laser pulse: lagrangian codes and molecular dynamics"*

Nobuyasu Ito, Japan - *"Social sciences with supercomputer"*

Wolfhard Janke, Germany - *"Computer Simulation Studies of Polymer Adsorption and Aggregation"*

Helmut Katzgraber, USA - *"Beyond Moore's Law? Seeking Quantum Speedup Through Spin Glasses"*

Ralph Kenna, United Kingdom - *"Maths Meets Myths - Quantitative Investigations of Ancient Narratives"*

Lin Hai-Qing, China - *"Study of Superconductivity in Polycyclic Aromatic Hydrocarbon"*

Yuri Lozovik, Russia - *"Puzzle of supersolid: history and current state"*

Mark Novotny, USA - *"Spanning Trees, Continents, and the Quantum/Classical Divide on D-Wave 2 machines"*

Igor Petrov, Russia - *"Computational problems in Arctic Research"*

Arkady Satanin, Russia - *"Generation of entangled microwave photons in superconducting circuits"*

Walter Selke, Germany - *"Classical and quantum anisotropic Heisenberg antiferromagnets"*

Vladimir Shchur, United Kingdom - *"On modern problems and methods for data analysis in human genomics"*

Sauro Succi, USA - *"Lattice Boltzmann simulations of flowing matter across scales: classical, quantum and relativistic"*

Martin Weigel, United Kingdom - *"Fragmentation of fractal random structures"*

Alexandre Zagoskin, United Kingdom - *"The grand challenge of quantum computing: bridging the capacity gap"*

TOPICS:

- Simulations in Statistical Physics;
- Physics and mechanics of polymers;
- Methods and software for simulations in research and engineering;
- Bioinformatics, methods and algorithms in genome research;
- Simulations in material science;
- Simulation and analysis of social networks;
- Simulation and analysis of technical networks (urban transportation, data networks, etc.);
- Algorithms, methods, and tools with properties of scalability and enhanced parallel simulations;
- Informatics and education;
- Quantum computing;

ADVISORY BOARD:

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VENUE:

Tallinskay ul. 34, Moscow

WEBSITE:

<http://csp2015.ac.ru/>

CONFERENCE CHAIR:

Lev Shchur



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