



# Preliminary Call for Papers Ershov Informatics Conference

June, 27 – July, 1, 2011, Novosibirsk, Akademgorodok, Russia  
<http://psi.nsk.ru>



The Ershov Informatics Conference (the PSI Conference Series, the 8<sup>th</sup> edition) is the premier international forum in Russia for research and its applications in computer, software and information sciences. The conference brings together academic and industrial researchers, developers and users to present and discuss the most recent innovations, trends, experiences and concerns in the conference area.

The Ershov Informatics Conference is dedicated to the 80<sup>th</sup> anniversary of a pioneer in theoretical and system programming research, academician Andrei Petrovich Ershov (1931–1988) and to the 100<sup>th</sup> anniversary of one of the founders of cybernetics, a member of the Soviet Academy of Sciences Alexei Andreevich Lyapunov (1911–1973).

## Organizers

- A.P. Ershov Institute of Informatics Systems, Siberian Branch of RAS
- Novosibirsk State University

## Conference Chair

### *Alexander Marchuk*

A.P. Ershov Institute of Informatics Systems & Novosibirsk State University, Novosibirsk, Russia

## Steering Committee

### *Dines Bjørner*

Technical University of Denmark, Lyngby, Denmark

### *Manfred Broy*

Institut für Informatik, Technische Universität München, Germany

### *Victor Ivannikov*

Institute for System Programming RAS, Moscow, Russia

### *Bertrand Meyer*

ETH, Zürich, Switzerland, and Eiffel Software, Goleta, USA

### *Leonid Libkin*

University of Edinburgh, UK

## Honorary Member

### *Tony Hoare*

Microsoft Research, Cambridge, UK

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Carnegie Mellon University, Pittsburgh, USA

### *Irina Virbitskaite*

A.P. Ershov Institute of Informatics Systems & Novosibirsk State University, Novosibirsk, Russia

### *Andrei Voronkov*

The University of Manchester, UK

## Conference Secretary

### *Natalia Cheremnykh*

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## Conference Topics

### *Foundations of Program and System Development and Analysis*

- specification, validation, and verification techniques,
- program analysis, transformation and synthesis,
- semantics, logic and formal models of programs,
- partial evaluation, mixed computation, abstract interpretation, compiler construction,
- theorem proving and model checking,
- concurrency theory,
- modeling and analysis of real-time and hybrid systems,
- computer models and algorithms for bioinformatics.

### *Programming Methodology and Software Engineering*

- object-oriented, aspect-oriented, component-based and generic programming,
- programming by contract,
- program and system construction for parallel and distributed computing,
- constraint programming,
- multi-agent technology,
- system re-engineering and reuse,
- integrated programming environments,
- software architectures,
- software development and testing,
- model-driven system/software development,
- agile software development,
- software engineering methods and tools,
- program understanding and visualization.

### *Information Technologies*

- data models,
- database and information systems,
- knowledge-based systems and knowledge engineering,
- bioinformatics engineering,
- ontologies and semantic Web,
- digital libraries, collections and archives, Web publishing,
- peer-to-peer data management.

In addition to papers on topics from the list above, papers both bridging the gap between different directions and promoting mutual understanding of researchers are welcome. Papers defining the general prospects in computer, software and information sciences are also encouraged.

## Programme Committee (tentative)

Samson Abramsky, Oxford Univ., UK  
Frédéric Benhamou, Univ. Nantes, France  
Leopoldo Bertossi, Carleton Univ., Canada  
Eike Best, Univ. of Oldenburg, Germany  
Stefan Brass, Univ. Halle, Germany  
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Jean Claude Fernandez, Univ. J. Fourier, Grenoble, France  
Chris George, UNU/IIST, Macau  
Jan Friso Groote, Eindhoven Univ. of Techn., The Netherlands  
Heinrich Herre, University of Leipzig, Germany  
Viktor Kasyanov, IIS, Novosibirsk, Russia  
Joost-Pieter Katoen, RWTH Aachen Univ., Germany  
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Johan Lilius, Åbo Akademi Univ., Turku, Finland  
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Klaus Meer, Techn. Univ. Cottbus, Germany  
Dominique Méry, Univ. Henri Poincaré, Nancy, France  
Torben Mogensen, Univ. Copenhagen, Denmark  
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Nikolaj Nikitchenko, Nat. Univ. Kiev, Ukraine  
José R. Paramá, Univ. A Coruña, Spain  
Francesco Parisi-Presicce, Univ. La Sapienza, Rome, Italy  
Wojciech Penczek, Inst. Comp. Sci., Warsaw, Poland  
Peter Pepper, Techn. Univ. Berlin, Germany  
Alexander Petrenko, ISP RAS, Moscow, Russia  
Jaroslav Pokorny, Charles U., Prague, Czech Republic  
Wolfgang Reisig, Humboldt Univ., Berlin, Germany  
Donald Sannella, University of Edinburgh, UK  
Klaus-Dieter Schewe, Software Competence Centre, Austria  
David Schmidt, Kansas State Univ., Manhattan, USA  
Nikolay Shilov, IIS, Novosibirsk, Russia  
Val Tannen, Univ. Pennsylvania, USA  
Mark Trakhtenbrot, Holon Inst. of Technology, Israel  
Alexander L. Wolf, Imperial College, London, UK  
Tatyana Yakhno, Izmir Univ., Turkey  
Wang Yi, Uppsala Univ., Sweden

## Invited Speakers (TBA)

### Submissions

There are three categories of submissions:

- regular papers describing fully developed work and complete results (12 pages / 30 minute talks);
- short papers reporting on interesting work in progress and/or preliminary results (7 pages / 15 minute talks);
- system and experimental papers describing implementation or evaluation of experimental systems and containing a link to a working system (4 pages / 10 minute presentation).

Submissions should:

- contain original contributions that have not been published or submitted to other conferences/journals in parallel with this conference;

- clearly state the problem being addressed, the goal of the work, the results achieved, and the relation to other works;
- be in PS or PDF and formatted according to Springer LNCS Instructions for Authors: <http://www.springeronline.com>;
- be in English and in a form that can be immediately included in the proceedings without major revision;
- be attached (if necessary) by an appendix that contains proofs etc. However, the paper must be self-contained without the appendix in that reviewers may not read the appendix;
- be sent electronically (as a PostScript or PDF file) through the submissions link to the conference website: <http://www.easychair.org/conferences/?conf=psi11> not later than January 26, 2011.

Submitted regular papers that are judged to have limited merit may be accepted as short papers, with up to seven pages in the proceedings. At the time of submission, authors should indicate if they wish to have their submission considered as a short paper in the case it is not accepted as a regular one.

At least one author of each accepted paper must register, attend the conference and present the paper.

## Conference Proceedings

A preliminary book of tutorial, invited and accepted contributions will be handed out at the conference. The final versions of the invited, regular and short papers presented at the conference will be published by Springer-Verlag in the Lecture Notes in Computer Science series after the conference. One can find the proceedings of the previous six conferences in LNCS, Vol. 1181, 1755, 2244, 2890, 4378 and 5947, respectively.

## Location

The conference will be held in Akademgorodok which is located in a picturesque place near the Ob lake, 30 km South from Novosibirsk, the largest city of Siberia. Silence, beautiful landscape, and pure air are the factors promoting scientific activity and creativity during the conference.

## Travelling

You can fly to Novosibirsk via Moscow by Aeroflot, Transaero or S7. Direct S7 flights will bring you from Frankfurt, Hannover, Seoul or Beijing to Novosibirsk and back. Now you can buy electronic tickets on Aeroflot, S7 and Transaero flights via the websites and pay by VISA and other popular cards. All participants will be met at the Novosibirsk airport and brought to Akademgorodok by a special transport.

## Weather

The weather in Novosibirsk at the end of June is normally quite warm and sunny with the temperatures in the range of 25–30 C.

## Satellite Workshops

N.B. Three satellite workshops will be held in conjunction with PSI'11:

- Program Understanding,
- Educational Informatics,
- Science Intensive Applied Software.

## Important Dates

- **January 26, 2011**: submission deadline
- **April 2, 2011**: notification of acceptance
- **June 27 – July 1, 2011**: the conference dates
- **September 1, 2011**: camera ready papers due