

The Ershov Informatics Conference (the PSI Conference Series, 9<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. In doing so, the forum provides a venue for building up research collaborations between the rapidly growing Russian Informatics Community and its international counterparts. Also, the conference welcomes both young researchers looking for international cooperation in computer science and established scientists willing to attract new colleagues to their research.

### Organizers

- A.P. Ershov Institute of Informatics Systems, Siberian Branch of the Russian Academy of Sciences
- Saint Petersburg State University

### Conference Chairs

#### *Alexander Marchuk*

A.P. Ershov Institute of Informatics Systems,  
Novosibirsk, Russia

#### *Andrey Terekhov*

Saint Petersburg State University, Saint Petersburg, Russia

### Steering Committee

#### *Dines Bjorner*

Technical University of Denmark, Lyngby, Denmark

#### *Manfred Broy*

Technische Universität München, Germany

#### *Victor Ivannikov*

Institute for System Programming RAS, Moscow, Russia

#### *Ugo Montanari*

University of Pisa, Italy

### Programme Committee Chairs

#### *Irina Virbitskaite*

A.P. Ershov Institute of Informatics Systems,  
Novosibirsk, Russia

#### *Andrei Voronkov*

The University of Manchester, UK

### Confirmed Keynote Speakers

*Edmund M. Clarke*, Carnegie Mellon University,  
Pittsburgh, USA

*Tony Hoare*, Microsoft Research in Cambridge,  
Cambridge, UK

*Bertrand Meyer*, ETH, Zurich, Switzerland

*Vladimiro Sassone*, University of Southampton,  
Southampton, UK

*Vadim E. Kotov*, Silicon Valley, California, USA

### Important Dates

- **January 27, 2014:** abstract submission
- **February 3, 2014:** submission deadline
- **April 1, 2014:** notification of acceptance
- **June 24 – 27, 2014:** the conference dates
- **September 1, 2014:** camera ready papers due

### Conference Topics

#### 1. 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.

#### 2. 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.

#### 3. 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 Members

**Marek Bednarczyk**, Inst. Comp. Sci., Gdansk, Poland  
**Frédéric Benhamou**, Univ. Nantes, France  
**Leopoldo Bertossi**, Carleton Univ., Canada  
**Eike Best**, Univ. Oldenburg, Germany  
**Nikolaj Bjørner**, Microsoft Research, Redmond, USA  
**Swarat Chaudhuri**, Rice Univ., US  
**Marsha Chechik**, Univ. Toronto, Canada  
**Gabriel Ciobanu**, Inst. Comp. Sc. RA, Iasi, Romania  
**Volker Diekert**, Univ. Stuttgart, Germany  
**Schahram Dustdar**, Vienna Univ. Technology, Austria  
**Dieter Fensel**, STI Innsbruck, Austria  
**Sergei Gorlatch**, Univ. Muenster, Germany  
**Jan Friso Groote**, Eindhoven Univ. Technology, The Netherlands  
**Arie Gurfinkel**, Carnegie Mellon Univ., US  
**Joost-Pieter Katoen**, RWTH Aachen Univ., Germany  
**Konstantin Korovin**, Univ. Manchester, UK  
**Maciej Koutny**, Newcastle Univ., UK  
**Laura Kovacs**, Chalmers Univ. Technology, Gothenburg, Sweden  
**Gregory Kucherov**, CNRS/LIGM, Marne-la-Vallee, France  
**Kim Guldstrand Larsen**, Aalborg University, Denmark  
**Leonid Libkin**, Univ. Edinburgh, UK  
**Johan Lilius**, Åbo Akademi Univ., Turku, Finland  
**Perciles Loucopoulos**, Loughborough Univ., UK  
**Andrea Maggiolo-Schettini**, Univ. Pisa, Italy  
**Rupak Majumdar**, MPI, Kaiserslautern, Germany  
**Klaus Meer**, Tech. Univ. Cottbus, Germany  
**Torben Mogensen**, Univ. Copenhagen, Denmark  
**Peter Mosses**, Swansea Univ., Wales, UK  
**José R. Paramá**, Univ. A Coruña, Spain  
**Wojciech Penczek**, Inst. Comp. Sci., Warsaw, Poland  
**Peter Pepper**, Tech. Univ. Berlin, Germany  
**Alexander Petrenko**, ISP RAS, Moscow, Russia  
**Paul Pettersson**, Mälardalen Univ., Sweden  
**Andrey Rybalchenko**, TUM, Munchen, Germany  
**Wolfgang Reisig**, Humboldt Univ., Berlin, Germany  
**Andrei Sabelfeld**, Chalmers Univ. Technology, Gothenburg, Sweden  
**Donald Sannella**, Univ. Edinburgh, UK  
**Klaus-Dieter Schewe**, Software Competence Centre Hagenberg, Austria  
**Konstantin Serebryany**, Google, Russia  
**Natasha Sharygina**, Univ. Lugano, Switzerland  
**Zhendong Su**, Univ. California Davis, USA  
**Mark Trakhtenbrot**, Holon Inst. of Technology, Israel

## Submissions

There are three categories of submissions:

- regular papers describing fully developed work and complete results (15 pages / 30 minute talks);
- short papers reporting on interesting work in progress and/or preliminary results (9 pages / 15 minute talks);
- system and experimental papers describing implementation or evaluation of experimental systems and containing a link to a working system (7 pages / 10 minute presentations).

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: <https://www.easychair.org/conferences/?conf=psi2014> not later than January 20, 2014.

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

The preliminary proceedings with invited and accepted contributions will be handed out at the conference. The final versions of the invited and accepted 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 seven conferences in LNCS, Vol. 1181, 1755, 2244, 2890, 4378, 5947, and 7162.

## Location

The conference will be held in Peterhof (also known as Petrodvorets), a suburb of St. Petersburg located on the southern shore of the Gulf of Finland. The town is one of St. Petersburg's most famous and popular visitor attractions thanks to its palaces, fountains and parks. Founded as a summer residence of Peter the Great, the area is recognized as a UNESCO World Heritage Site and is often referred to as "the Russian Versailles". For more information see <http://www.saint-petersburg.com/peterhof>.

## Travelling

You can fly directly to St. Petersburg (Pulkovo Airport) or travel via Moscow. From Moscow you can take a train - the fastest takes about four hours and now costs EUR 117 one way. There are also quite a few overnight trains, which cost from EUR 71 to EUR 106 2nd class one way and take about 8 hours. All direct trains depart from Moskva Oktiabrskaya (October Station, the former Moscow Leningradsky Station) and arrive at Sankt-Peterburg Glavnyi (Main Station). For more details see <http://www.russianrail.com>.

## Satellite Workshops

N.B. Three satellite workshops will be held in conjunction with PSI'14:

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

## Conference Secretary

**Irina Adrianova**

A.P. Ershov Institute of Informatics Systems  
6, Prospekt Acad. Lavrentiev, 630090 Novosibirsk, Russia  
tel.: +7 383 3307352 fax: +7 383 3323494  
e-mail: [psi2014@iis.nsk.su](mailto:psi2014@iis.nsk.su) .

See for more information <http://psi.nsc.ru/psi14>.