



## CALL FOR PAPERS

### PSI: 10<sup>th</sup> Ershov Informatics Conference

25 – 27 August 2015, Innopolis, Kazan, Russia

<http://psi.university.innopolis.ru/>

The Ershov Informatics Conference (the PSI Conference Series, 10<sup>th</sup> edition) is the premier international forum in Russia for research and applications in computer, software and information sciences. The conference brings together academic and industrial researchers, developers and users to discuss the most recent topics in the field. PSI provides an ideal venue for setting up research collaborations between the rapidly growing Russian informatics community and its international counterparts, as well as between established scientists and younger researchers.

#### Conference Chairs

**Bertrand Meyer**

ETH, Zurich

**Irina Virbitskaite**

A.P. Ershov Institute, Novosibirsk

#### Programme Committee Chairs

**Manuel Mazzara**

Innopolis University

**Andrei Voronkov**

The University of Manchester

#### Steering Committee

**Dines Bjorner**

Technical University of Denmark

**Manfred Broy**

Technische Universität München

**Victor Ivannikov**

Russian Academy of Sciences

**Ugo Montanari**

University of Pisa

#### Publicity Chairs

**Timur Tsiunchuk**

Innopolis University

**Salvatore Distefano**

Politecnico di Milano

#### Workshop Chairs

**Shilov Nikolay**

Nazarbayev U. and Ershov Inst. of Informatics Systems

**Salvatore Distefano**

Politecnico di Milano

#### Keynote speakers

**Hans-Ulrich Heiss**

TUB, Germany

**Jane Hillston**

University of Edinburgh, UK

**David Parnas**

Middle Road Software

**Helmut Veith**

Vienna University of Technology, Austria

#### 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.
- Static program analysis.
- 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 architecture.
- Software development and testing.
- Model-driven system/software development.
- Agile software development.
- Software engineering methods and tools.
- Service engineering, service oriented architecture.
- Reverse engineering.
- Reflection techniques.
- Software bugs, aging and reliability models and countermeasures.
- Program understanding and visualization.

##### *3. Information Technologies*

- Data models.
- Database and information systems.
- Data mining, analytics.
- Knowledge-based systems and knowledge engineering.
- Bioinformatics engineering.
- Ontologies and semantic Web.
- Digital libraries, collections and archives, Web publishing.
- Peer-to-peer data management.

More generally, the conference welcomes novel scientific contributions in software-related areas, and application papers showing practical applications of research results.

## Local Organizers

**Tanya Stanko**

Innopolis University

**Inna Baskakova**

Innopolis University

## Programme Committee Members

**Farhad Arbab**, CWI and Leiden University, Netherlands

**David Aspinall**, Univ. of Edinburgh, UK

**Marcello Maria Bersani**, Politecnico di Milano, Italy

**Eike Best**, Univ. of Oldenburg, Germany

**Nikolaj Bjørner**, Microsoft Research, Redmond, USA

**Naïlle Boukharaev**, Kazan Federal University, Russia

**Andrea Cali**, Birkbeck College, UK

**Mauro Caporuscio**, Linnaeus University, Sweden

**Néstor Cataño**, Madeira Univ., Portugal

**Gabriel Ciobanu**, Romanian Academy, Iasi, Romania

**Volker Diekert**, Univ. Stuttgart, Germany

**Salvatore Distefano**, Politecnico di Milano, Italy

**Nicola Dragoni**, DTU, Denmark and Örebro Univ., Sweden

**Schahram Dustdar**, Vienna Univ. Technology, Austria

**Dieter Fensel**, STI Innsbruck, Austria

**Carlo Furia**, ETH, Switzerland

**Carlo Ghezzi**, Politecnico di Milano, Italy

**Sergei Gorlatch**, Univ. Muenster, Germany

**Jan Friso Groote**, Eindhoven Univ. Tech., The Netherlands

**Arie Gurfinkel**, Carnegie Mellon Univ., US

**Cliff Jones**, Newcastle Univ., UK

**Joost-Pieter Katoen**, RWTH Aachen Univ., Germany

**Konstantin Korovin**, Univ. Manchester, UK

**Maciej Koutny**, Newcastle Univ., UK

**Laura Kovacs**, Chalmers Univ. Tech., Gothenburg, Sweden

**Gregory Kucherov**, CNRS/LIGM, Marne-la-Vallée, France

**Johan Lilius**, Åbo Akademi Univ., Turku, Finland

**Anthony Widjaja Lin**, Yale-NUS College, Singapore

**Zhiming Liu**, Birmingham City University

**Jan Madsen**, DTU Copenhagen, Denmark

**Rupak Majumdar**, MPI, Kaiserslautern, Germany

**Klaus Meer**, Tech. Univ. Cottbus, Germany

**Hernán Melgratti**, Univ. de Buenos Aires, Argentina

**Torben Mogensen**, Univ. Copenhagen, Denmark

**Peter Mosses**, Swansea Univ., UK

**Martin Nordio**, ETH, Switzerland

**José R. Paramá**, Univ. A Coruña, Spain

**Wojciech Penczek**, Inst. Comp. Sci., Warsaw, Poland

**Peter Pepper**, TU Berlin, Germany

**Alexander Petrenko**, ISP RAS, Moscow, Russia

**Paul Pettersson**, Mälardalen Univ., Sweden

**Nadia Polikarpova**, MIT, USA

**Qiang Qu**, Innopolis University, Russia

**Andrey Rybalchenko**, TUM, München, Germany

**Wolfgang Reisig**, Humboldt Univ., Berlin, Germany

**Davide Sangiorgi**, Univ. of Bologna, Italy

**Natalia Sidorova**, Technische Univ. Eindhoven, Netherlands

**Giancarlo Succi**, University of Bolzano, Italy

**Klaus-Dieter Schewe**, SW Competence C., Hagenberg, Austria

**Max Talanov**, Kazan Federal University, Russia

**Alexander Tormasov**, Innopolis University, Russia

**Mark Trakhtenbrot**, Holon Inst. of Technology, Israel

**Kishor S. Trivedi**, Duke University, USA

**Domagoj Vrgoc**, Center for Semantic Web Research, Chile

**Sergey Zykov**, Higher School of Economics, Russia

## Conference Secretary

**Inna Baskakova**

Innopolis University

42 Profsoyuznaya str., 420100, Kazan, Russia

Tel: +7 (843) 203-92-53 (Kazan)

i.baskakova@innopolis.ru

## Important Dates (extended)

- **April 23, 2015**: abstract submission
- **April 30, 2015**: submission deadline
- **June 3, 2015**: notification of acceptance
- **August 25 – 27, 2015**: the conference dates
- **November 1, 2015**: camera ready papers due

## 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:

- Present original contributions that have not been previously published and are not being submitted to another publication.
- Clearly state the problem being addressed, the goal of the work, the results achieved, and the relation to other work.
- Be in good-quality English, in a form that can be immediately published without revision.
- Be sent electronically, as a PDF file formatted according to Springer LNCS Instructions for Authors: <http://www.springeronline.com> through the submissions link to the conference website <https://easychair.org/conferences/?conf=psi2015> no later than April 23, 2015.

It is permissible to include or link to an appendix listing detailed results or supporting data that do not fit within the page limits, as long as the paper can be evaluated without reading this appendix. At least one author of each accepted paper must register, attend the conference and present the paper.

## Conference Proceedings

Preliminary proceedings will be available at the conference. Final versions of invited and accepted papers will be published by Springer-Verlag after the conference in the *Lecture Notes in Computer Science* series. Proceedings of previous PSIs are volumes 1181, 1755, 2244, 2890, 4378, 5947, 7162, and 8974 of LNCS.

## Location

PSI 2015 will take place in the Korston conference hall in Kazan, one of the oldest, largest and most beautiful cities in Russia, with a rich multicultural heritage and architectural treasures recognized as a UNESCO World Heritage Site. Kazan was recently noted by TripAdvisor as one of the destination on the rise. A social and cultural program will enable participants and companions to discover the beauty of Kazan. Pre- and post-conference tours are available upon request.

## Travelling

You can fly directly to Kazan through Moscow or directly from a number of international destinations such as Helsinki. Trains are also available from Moscow.