# CALL FOR PAPERS

# PSI: 10th Ershov Informatics Conference

25 – 27 August 2015, Innopolis, Kazan, Russia

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.

## **Local Organizers**

Tanya Stanko Innopolis University Inna Baskakova Innopolis University

### **Publicity Chairs**

Timur Tsiunchuk Innopolis University Salvatore Distefano Politecnico di Milano

### **Conference Chairs**

Bertrand Meyer ETH, Zurich Irina Virbitskaite A.P. Ershov Institute, Novosibirsk

## **Steering Committee**

# **Dines Bjorner**

Technical University of Denmark

# **Manfred Broy**

Technische Universität München

### Victor Ivannikov

Institute for System Programming, Russian Academy of Sciences

### Ugo Montanari

University of Pisa

### **Programme Committee Chairs**

Manuel Mazzara Innopolis University Andrei Voronkov

The University of Manchester

### **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.

### **Important Dates**

- April 16, 2015: abstract submission
- April 23, 2015: submission deadline
- May 31, 2015: notification of acceptance
- August 25 27, 2015: the conference dates
- November 1, 2014: camera ready papers due

# **Programme Committee Members**

Farhad Arbab, CWI and Leiden University, Netherlands Marcello Maria Bersani, Politecnico di Milano, Italy Nikolaj Bjørner, Microsoft Research, Redmond, USA Andrea Calì, Birkbeck College, UK Mauro Caporuscio, Linnaeus University, Sweden Gabriel Ciobanu, Inst. Comp. Sc. RA, Iasi, Romania Volker Diekert, Univ. Stuttgart, Germany Salvatore Distefano, Politecnico di Milano, Italy Nicola Dragoni, DTU Copenhagen, Denmark 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 Maciei Koutny, Newcastle Univ., UK Laura Kovacs, Chalmers Univ. Tech., Gothenburg, Sweden Gregory Kucherov, CNRS/LIGM, Marne-la-Vallee, 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 José R. Paramá, Univ. A Coruña, Spain Wojciech Penczek, Inst. Comp. Sci., Warsaw, Poland Alexander Petrenko, ISP RAS, Moscow, Russia Paul Pettersson, Mälardalen Univ., Sweden Nadia Polikarpova, MIT, USA Andrey Rybalchenko, TUM, Munchen, Germany Wolfgang Reisig, Humboldt Univ., Berlin, Germany Davide Sangiorgi, Univ. of Bologna, Italy Giancarlo Succi, University of Bolzano, Italy Klaus-Dieter Schewe, SW Competence C., Hagenberg, Austria Mark Trakhtenbrot, Holon Inst. of Technology, Israel Kishor S. Trivedi, Duke University, USA Domagoj Vrgoc, Center for Semantic Web Research, Chile

# **Conference Secretary**

Inna Baskakova Innopolis University 42 Profsoyuznaya str., 420100, Kazan, Russia Tel: +7 (843) 203-92-53 (Kazan)

### **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: <a href="http://www.springeronline.com">http://www.springeronline.com</a>) through the submissions link to the conference website <a href="https://easychair.org/conferences/?conf=psi2015">https://easychair.org/conferences/?conf=psi2015</a> 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 and 7162 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.