Message from the Chairs

Welcome to San Francisco, CA, and the 21st International Conference on Program Comprehension (ICPC 2013)!

Program comprehension is a vital software engineering and maintenance activity. It is necessary to facilitate reuse, inspection, maintenance, reverse engineering, reengineering, migration, and extension of existing software systems. ICPC provides an opportunity for researchers and industry practitioners to present and discuss both the state of the art and the state of the practice in the general area of program comprehension.

We received a record number of 63 full paper submissions to the main/research track from across the world. The papers went through a rigorous review process. The final decision on including the papers in the proceedings was made based on the reviews, open discussion among program committee members, and consensus building. Eventually, 19 papers were accepted in the technical program, giving an acceptance rate of 30%. These papers feature various program comprehension topics such as textual analysis, visualization, software quality, source code comprehension, traceability and feature location, API comprehension, and software architecture comprehension.

This edition of ICPC also includes Early Research Achievement (ERA), Industry, Formal Tool Demonstration, and Student Symposium tracks. A separate reviewing committee was established for these tracks, which followed the same rigorous standards of the research track, albeit within their objectives. The ERA track will feature 5 papers (out of 14 submitted), the tool demo track 4 papers (out of 7 submitted), and the industry track 2 papers (out of 3 submitted).

We are delighted to have Professor Brad A. Myers from Carnegie Mellon University to give the keynote address this year. His talk on “Improving Program Comprehension by Answering Questions” will describe the "Whyline" debugging tool, which allows programmers to ask questions about their programs and get a visualization of the answers.

Keeping up with the recently established tradition, ICPC 2013 will feature the Most Influential Paper (MIP) from the 11th International Workshop on Program Comprehension (IWPC 2003), held in Portland, Oregon, May 10-11 2003. This year’s MIP is the paper entitled “An XML-Based Lightweight C++ Fact Extractor”, by Michael L. Collard, Huzefa H. Kagdi, and Jonathan I. Maletic. Program and Steering Committee members selected this paper from all those published at IWPC 2003 through an anonymous ballot.

ICPC 2013 is a joint effort of a number of individuals that functioned as an effective team. We express our strongest gratitude to the organizing and program committee members. Their voluntary work and commitment have brought the objectives of ICPC 2013 to full fruition. Names are many and their contributions plenty; however, we would be amiss not to recognize Mark Grechanik and Rocco Oliveto (ERA chairs), Brian Robinson and Christian Bird (Industry chairs), James Cordy and Jonathan Maletic (Student Symposium chairs), Emily Hill and Malcom Gethers (Tool Chairs), Michael Collard (Finance Chair), Gabriele Bavota and Sonia Haiduc (Publicity chairs), and Sebastiano Panichella (Webmaster) for a job well done in their respective roles. Finally, we are extremely grateful to all the authors who submitted high quality work and all the participants who joined the technical and social programs.

We hope that you will have a productive and pleasurable experience with ICPC 2013!

Denys Poshyvanyk and Massimiliano Di Penta
Program Co-Chairs

Huzefa Kagdi
General Chair
ICPC 2013 Team

Organizing Committee Members

General Chair
Huzefa Kagdi, Wichita State University, USA

Program Co-Chairs
Denys Poshvyvanyk, The College of William and Mary, USA
Massimiliano Di Penta, University of Sannio, Italy

Early Research Achievement (ERA) Co-Chairs
Mark Grechanik, University of Illinois, Chicago, USA
Rocco Oliveto, University Of Molise, Italy

Industry Track Co-Chairs
Brian Robinson, ABB Corporate Research, USA
Christian Bird, Microsoft Research, USA

Student Symposium Co-Chairs
James Cordy, Queen's University, Canada
Jonathan Maletic, Kent State University, USA

Tool Demonstration Co-Chairs
Emily Hill, Montclair State University, USA
Malcom Gethers, University of Maryland, Baltimore County (UMBC), USA

Finance Chair
Michael Collard, University of Akron, USA

Publicity Co-Chairs
Gabriele Bavota, University of Sannio, Italy
Sonia Haiduc, Wayne State University, USA

Webmaster
Sebastiano Panichella, University of Sannio, Italy

Steering Committee Members
Denys Poshvyvanyk, The College of William and Mary, USA (Chair)
Andrew Begel, Microsoft Research, USA
Dirk Beyer, University of Passau, Germany
Yann-Gaël Guéhéneuc, École Polytechnique de Montréal, Canada
Pedro Rangel Henriques, Universidade do Minho, Portugal
Leon Moonen, Simula Research Laboratory, Norway
Václav Rajlich, Wayne State University, USA
Program Committee Members (Research Track)

Bram Adams, École Polytechnique de Montréal, Canada
Giuliano Antoniol, École Polytechnique de Montréal, Canada
Gabriele Bavota, University of Sannio, Italy
Andrew Begel, Microsoft Research, USA
Dirk Beyer, University of Passau, Germany
Dave Binkley, Loyola University Maryland, USA
Mariano Ceccato, Fondazione Bruno Kessler, Italy
Anthony Cleve, University of Namur, Belgium
Michael Collard, The University of Akron, USA
James R. Cordy, Queen’s University, Kingston, Ontario, Canada
Andrea De Lucia, University of Salerno, Italy
Serge Demeyer, Universiteit Antwerpen, Belgium
Rudolf Ferenc, University of Szeged, Hungary
Thomas Fritz, University of Zurich, Switzerland
Daniel M. German, University of Victoria, Canada
Malcom Gethers, University of Maryland, Baltimore County (UMBC), USA
Mark Grechanik, University of Illinois at Chicago, USA
Abdelwahab Hamou-Lhadj, Concordia University, Canada
Emily Hill, Montclair State University, USA
Abram Hindle, University of Alberta, Canada
Daqing Hou, Clarkson University, USA
Foutse Khomh, École Polytechnique de Montréal, Canada
Rainer Koschke, University of Bremen, Germany
Nicholas A. Kraft, The University of Alabama, USA
Jens Krinke, University College London, UK
Ralf Laemmel, Universität Koblenz-Landau, Germany
Michele Lanza, University of Lugano, Switzerland
David Lo, Singapore Management University, Singapore
Jonathan Maletic, Kent State University, USA
Andrian Marcus, Wayne State University, USA
Collin McMillan, University of Notre Dame, USA
Leon Moonen, Simula Research Laboratory, Norway
Rocco Oliveto, University of Molise, Italy
Martin Pinzger, Delft University of Technology, Netherlands
Lori Pollock, University of Delaware, USA
Vaclav Rajlich, Wayne State University, USA
Filippo Ricca, University of Genova, Italy
Romain Robbes, University of Lugano, Switzerland
Chanchal K. Roy, University of Saskatchewan, Canada
Giuseppe Scanniello, University of Basilicata, Italy
Emad Shihab, Rochester Institute of Technology, USA
Andreas Stefik, Southern Illinois University Edwardsville, USA
Paolo Tonella, Fondazione Bruno Kessler, Italy
Arie Van Deursen, Delft University of Technology, Netherlands
Zhengchang Xing, National University of Singapore, Singapore
Andy Zaidman, Delft University of Technology, Netherlands
Thomas Zimmermann, Microsoft Research, USA


**Program Committee (ERA Track)**
Venera Arnaoudova, *Ecole Polytechnique of Montreal, Canada*
Alberto Bacchelli, *University of Lugano, Switzerland*
Earl Barr, *University College London, UK*
Gerardo Canfora, *University of Sannio, Italy*
Christoph Csallner, *University of Texas at Arlington, USA*
Giacomo Ghezzi, *University of Zurich, Switzerland*
Scott Grant, *Queen's University, Canada*
Sonia Haiduc, *Wayne State University, USA*
William G. J. Halfond, *University of Southern California, USA*
Jens Krinke, *University College London, UK*
David Lo, *Singapore Management University, Singapore*
Alessandro Marchetto, *FIAT research center, Italy*
Radu Marinescu, *Technical University of Timisoara, Romania*
Brian Robinson, *ABB Research, USA*
Bonita Sharif, *Youngstown State University, USA*
Suresh Thummalapenta, *IBM Research, India*
Christoph Treude, *McGill University, Canada*
Nikolaos Tsantalis, *Concordia University, Canada*

**Program Committee (Tool Demonstration Track)**
Andrew Begel, *Microsoft Research, USA*
Scott Grant, *Queen's University, Canada*
Sonia Haiduc, *Wayne State University, USA*
Petru Mihancea, *Politehnica University of Timisoara, Romania*
Chris Parnin, *Georgia Institute of Technology, USA*
Christoph Treude, *McGill University, Canada*
Andy Zaidman, *Delft University of Technology, The Netherlands*

**Additional Reviewers (Research Track)**
Nouh Alhindawi
Venera Arnaoudova
Martin Brandtner
Michael Decker
Carmine Gravino
Sonia Haiduc
Peter Häring
Syed Islam
Yujuan Jiang
Judit Jász
Iman Keivanloo
Maurizio Leotta
Omar Meqdadi
Ahmed Moamen
Tim Molderez
Laura Moreno
Sebastian Mueller
Alessandro Murgia
Christian Newman
Annibale Panichella
Javier Perez
Masud Rahman
Michele Risi
Cory Schutz
Andreas Stahlbauer
Parastou Tourani
Andrei Varanovich
Laszlo Vidacs
Jochen Wuttke
Shamima Yeasmin