

CONFERENCE PROGRAM



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**TMPA-2017, 3-4 MARCH 2017
MOSCOW**



KEYNOTE SPEAKERS

Thomas A. Henzinger

(President, IST, Austria Institute of Science and Technology)

Steve Zdancewic

(Professor, USA University of Pennsylvania)

Nenad Medvidovic

(Professor, USA University of Southern California, ACM SIGSOFT
Executive Committee Chair)

Iosif Itkin

(Co-CEO of Exactpro, LSEG)

Alexey Vasyukov

(Software Engineer, Inventa)

Vadim Zherder

(Head of Test Automation, Moscow Exchange)

MARCH 2 (THURSDAY)

19.00

Welcoming Dinner



The 4th Tools & Methods of Program Analysis International Conference (TMPA - 2017), organized in cooperation with ACM Sigsoft, will take place in Moscow, Russia, on 3-4 March, 2017.

The challenges of software quality are a vital issue for the majority of high-tech industries, including IT, finance, transportation, medicine, and many others. The purpose of the conference is to raise awareness of the progress in software development and to promote innovations in software testing, analysis, and verification.

Senior and postgraduate students, young and renowned scientists from academia, as well as industry researchers and practitioners from the leading software development firms, whose research interests involve software development, testing, analysis and verification, are invited to participate in the conference.

The conference program will include keynote talks, as well as presentations of the full and short papers selected during the preliminary independent review process.

Selected papers will be published with Springer in their Communications in Computer and Information Science series and in the Proceedings of Peter the Great St.Petersburg Polytechnic University.

9.00 Registration

9.30 Conference Opening

10.00 **Steve Zdancewic**
(Professor, USA University of Pennsylvania)
Vellvm - Verifying the LLVM



11.00 Evgeny Pyshkin, Maxim Mozgovoy
Unity Application Testing Automation with Appium and Image Recognition

11.25 **Coffee Break**

12:00 Roman Nesterov, Irina Lomazova
Compositional Process Model Synthesis Based on Interface Patterns

12.25 Azat Abdullin, Daniil Stepanov, Marat Akhin
Distributed Analysis of the BMC Kind: Making It Fit the Tornado Supercomputer

12.50 Astrid Younang, Lunjin Lu, Nabil Almashfi
Static Checking of Array Objects in JavaScript

13:15 Alexey Ruchay, Ivan Kliavin, Tatiana Kotova, Julia Ivanova
Regression Testing with Semiautomatic Test Selection for Auditing of IMS Database

13.30 **Alexey Vasyukov** (Software Engineer, Inventa),
Vadim Zherder (Head of Test Automation, Moscow Exchange)
Live Testing Distributed System Fault Tolerance with Fault Techniques



14.00 Lunch

15.00 **Iosif Itkin** (Co-CEO of Exactpro, LSEG)
Software Testing in Market Infrastructures



15.30 Mustafa Kemal Tas, Hanefi Mercan, Gülşen Demiröz, Kamer Kaya, Cemal Yilmaz
Generating Cost Aware Covering Arrays for Free

15.55 Maxim Menshchikov, Timur Lepikhin
5 W+1H Static Analysis Report Quality Measure

16.20 Anna Gromova
Defect Report Classification in Accordance with Areas of Testing

16.45 Coffee Break

17.15 Maxim Bakaev, Vladimir Khvorostov, Tatiana Laricheva
Assessing Subjective Quality of Web Interaction with Neural Network as Context of Use Model

17.30 Wenbin Li, Franck Le Gall, Naum Spaseski
A Survey on Model-Based Testing Tools for Test Case Generation

17.45 Vsevolod Kotlyarov, Pavel Drobintsev, Nikita Voinov, Ivan Selin, Alexey Tolstoies
Technology and Tools for Developing Industrial Software Test Suites Based on Formal Models and Implementing Scalable Testing Process on Supercomputer

18.00 Daniel Rubio Bonilla
Using Functional Directives to Analyze Code Complexity and Communication

18.15 Yuriy Skobtsov, Vadim Skobtsov
Evolutionary Algorithms in Test Generation for Digital Systems

18.30 Dinner

10.00 **Thomas A. Henzinger**
(President, IST, Austria Institute of Science and Technology)
The Quest for Average Response Time



11.30 **Coffee Break**

12.00 Semyon Grigorev, Artem Gorokhov
Extended Context-Free Grammars Parsing with Generalized LL

12.25 Alexey A. Mitsyuk, Yaroslav V. Kotylev
Layered Layouts for Software Systems Visualization

12.50 Aleksey Markin, Alexandr Ermolitsky
Simple Type Based Alias Analysis for a VLIW Processor

13.05 Georgy Lukyanov, Artem Pelenitsyn
Functional Parser of Markdown Language Based on Monad Combining and Monoidal Source Stream Representation

13.20 Dmitriy Ryabukhin, Egor Kuzmin, Valery Sokolov
Modeling of PLC-programs by High-Level Coloured Petri Nets

13.35 Poster Session

14.00 **Lunch**

15.00 **Nenad Medvidovic** (Professor, USA University of Southern California,
ACM SIGSOFT Executive Committee Chair)
Stemming Architectural Decay in Software Systems



16.30 **Coffee Break**

17.00 Nikita Koval, Dmitry Tsitelov, Roman Elizarov
DI-Check: Dynamic Potential Deadlock Detection Tool for Java Programs

17.25 Pavel Andrianov, Vadim Mutilin, Alexey Khoroshilov
Predicate Abstraction Based Configurable Method for Data Race Detection in Linux Kernel

17.50 Ilja Zakharov
A Survey of High-Performance Computing for Software Verification

18.15 Conference Closing

18.30 **Dinner**

ORGANIZERS AND PARTNERS

