Parallel, Distributed, and Network-Based Processing has undergone impressive changes over recent years. New architectures and applications have rapidly become the central focus of the discipline. These changes are often a result of cross-fertilization of parallel and distributed technologies with other rapidly evolving technologies. It is of paramount importance to review and assess these new developments in comparison with recent research achievements in well-established areas of parallel and distributed computing from industry and the scientific community. PDP 2017 will provide a forum for the presentation of these and other issues through original research presentations and will facilitate the exchange of knowledge and new ideas at the highest technical level.

Topics of interest include, but are not restricted to:

• **Parallel Computing**: massively parallel machines; embedded parallel and distributed systems; multi- and many-core systems; GPU and FPGA based parallel systems; parallel I/O; memory organisation.
• **Distributed and Network-based Computing**: Cluster, Grid, Web and Cloud computing; mobile computing; interconnection networks.
• **Big Data**: large scale data processing; distributed databases and archives; large scale data management; metadata; data intensive applications.
• **Models and Tools**: programming languages and environments; runtime support systems; performance prediction and analysis; simulation of parallel and distributed systems.
• **Systems and Architectures**: novel system architectures; high data throughput architectures; service-oriented architectures; heterogeneous systems; shared-memory and message-passing systems; middleware and distributed operating systems; dependability and survivability; resource management.
• **Advanced Algorithms and Applications**: distributed algorithms; multi-disciplinary applications; computations over irregular domains; numerical applications with multi-level parallelism; real-time distributed applications.

In addition, special sessions will address upcoming novel topics:

• **GPU computing and Many Integrated Core Computing**
• **Formal Approaches to Parallel and Distributed Systems**
• **Advances in High-Performance Bioinformatics, Systems and Synthetic Biology**
• **Security in Parallel, Distributed and Network-Based Computing**
• **Energy Efficient Management of Parallel Systems, Platforms, and Computations**
• **Cloud Computing on Infrastructure as a Service and its Applications**
• **High Performance Computing in Modeling and Simulation**
• **On-chip parallel and network-based systems**

**IMPORTANT DATES**

Paper submission: **12th Oct. 2016**
Acceptance notification: **18th Nov. 2016**
Camera ready due: **16th Dec. 2016 (FINAL!)**
Registration deadline for authors who represent an accepted paper: **12th Dec. 2016 (FINAL!)**
Conference: 6th - 8th Mar. 2017

**SUBMISSION OF PAPERS**

Prospective authors should submit a full paper not exceeding 8 pages in the Conference proceedings format (double-column, 10pt) to the conference main track through the EasyChair conference submission system (http://www.easychair.org/conferences/?conf=pdp2017). The possibility to submit a paper to a special session will appear soon.
Double-bind review: the paper should not contain authors names and affiliations; in the reference list, references to the authors’ own work entries should be substituted with the string "omitted for blind review".

Publication: All accepted papers will be included in the same volume, published by the Conference Publishing Services (CPS). The Final Paper Preparation and Submission Instructions will be published after the notification of acceptance. Authors of accepted papers are expected to register and present their papers at the Conference. Conference proceedings will be submitted to IEEE explore, CDSL, and for indexing among others, to DBLP, Scopus ScienceDirect, and ISI Web of Knowledge.

ORGANIZERS
The PDP 2017 conference is organized by Laboratory of Computer Security Problems (http://comsec.spb.ru) of St. Petersburg Institute for Informatics and Automation of Russian Academy of Sciences (SPIIRAS), St. Petersburg, Russia.

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