# Preface

Vladimir Fursov[1], Yegor Goshin[1], Vladimir Voevodin[2], Dmitry Savelyev[1]

*[1]Samara National Research University, 34 Moskovskoe Shosse, 443086, Samara, Russia*
*[2]Lomonosov Moscow State University, 2nd Education Building, Faculty CMC, GSP-1, Leninskie Gory, 119991, Moscow, Russia*

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Session «High-Performance Computing» was held at the 3rd International Conference on Information Technology and Nanotechnology - 2017 (ITNT-2017) in Samara, Russia, April 25−27, 2017 (http://ru.itnt-conf.org/itnt17ru/). At this session relevant studies of development and implementation of high-perfomance computing algorithms were presented and discussed.

The goal of the ITNT-2017 Conference was to discuss problems of fundamental and applied research in information technology and nanotechnology, including but not limited to:

− Computer Optics;

− Diffractive Nanophotonics;

− Image Processing;

– High-performance Computing;

− Computer Vision;

− Mathematical Modeling;

− Data Science.

Scientists from Austria, Belarus, Bulgaria, Denmark, Germany, Great Britain, India, Iraq, Mexico, Moldova, Russia, Spain, USA, and Finland presented over 330 reports at the ITNT-2017 Conference.

The most significant studies presented at the Conference will published in Procedia Engineering (Elsevier BV). This volume contains all the papers presented at «High-Performance Computing» session, not included in Proceedia Engineering.

We are grateful to everybody who has contributed to the session and look forward to meeting you again at future events. Further, we thank all the authors who presented their studies, as well as the reviewers and the delegates. Moreover, we sincerely thank the team of organizers for making the session successful and this publication possible.

**Guest Editors**

- Professor Vladimir Voevodin, MSU Faculty of Computational Mathematics and Cybernetics, Moscow, Russia
- Professor Vladimir Fursov, Samara National Research University, Samara, Russia;
- Yegor Goshin, Samara National Research University, Samara, Russia;
- Denis Kudryashov, Samara National Research University, Samara, Russia.

**Conference Organizers**

- Samara National Research University
- Image Processing Systems Institute of RAS – Branch of the FSRC "Crystallography and Photonics" RAS
- Government of Samara Region
- Computer Technologies

**Chair**

- Evgeniy Shakhmatov – Samara National Research University, Russia

**Vice-chairs**

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- Nikolay Kazanskiy – Image Processing Systems Institute - Branch of the Federal Scientific Research Centre "Crystallography and Photonics" of Russian Academy of Sciences, Russia
- Eduard Kolomiets – Samara National Research University, Russia
- Alexander Kupriyanov – Samara National Research University, Russia

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