



# PROGRAMME

## Overview

Monday, October 22		Tuesday, October 23		
<b>KPI, Building 6 (Museum*)</b>		<b>KPI, Building 13 (IASA**)</b>		
9:00 - 9:20	Registration	9:00 - 9:30	Registration	
9:20 - 9:30	Opening	9:30-10:00	Methods & Technology Session	
9:30-10:00	Keynote Session	10:00-10:30		Modeling & Applications Session
10:00-10:30		10:30-11:00		
10:30-11:00		11:00-11:30		
11:00-11:30		11:30-12:00	Coffee Break	
11:30-12:00	Coffee Break	12:00-12:30	Methods & Technology Session	
12:00-12:30	Keynote Session	12:30-13:00		Modeling & Applications Session
12:30-13:00		13:00-13:30		
13:00-13:30		13:30-14:00		
13:30-14:30	Lunch	14:00-14:30	Closing	
<b>KPI, Building 13 (IASA**)</b>				
14:30-15:00	Algorithms & Performance Session	Simulation & Data Analysis Session		
15:00-15:30				
15:30-16:00				
16:00-16:30	Coffee Break			
16:30-17:00	Algorithms & Performance Session	Simulation & Data Analysis Session		
17:00-17:30				
17:30-18:00				

**\*Museum – State Polytechnical Museum of Ukraine, 37-e Peremohy ave.**

**\*\*IASA – Institute for applied system analysis, 14-v Politekhnichna str.**

# Technical Programme

Oral presentations Monday 22 October

**KPI, Building 6, Admin.Council Hall**

Keynote Session		
9:30	High Performance Compute and Storage Solutions Innovations and Trends	Volodymyr Saviak
10:00	Supporting Manufacturing SMEs with Cloud/HPC solutions	Tamas Kiss
10:30	Supercomputer technologies for mathematical modeling of complex systems	Oleksandr Khimich
11:00	Toward High-Level Programming for Modern Parallel and Distributed Systems	Sergii Gorlatch
11:30	Coffee Break	
12:00	Blockchain technology for computing: crowdsourcing and new protocols for consensus	Anton Kudin, Lyudmila Kovalchuk, Bohdan Kovalenko
12:30	A generic approach to Cloud Orchestration at the Level of Application: Reference Architecture and Application Description Language approach	Gabriele Pierantoni
13:00	Formal and Adaptive Methods for Development of Efficient Parallel Programs	Anatoliy Doroshenko

Oral presentations Monday 22 October

**KPI, Building 13 (IASA), Auditorium 5**

Algorithms & Performance Session		
14:30	On a quasistability radius for multicriteria integer linear programming problem of finding extremum solutions	Vladimir Emelichev, Yury Nikulin
15:00	Sensitivity Analysis as a Data Mining for Engineering of Intelligent 0-1 Discrete Linear Optimization Software Packages	Victor Mikhailyuk, Tatiana Cheprasova
15:30	Reconfigurable Manycore System	Anatoliy Sergiyenko, Olexiy Molchanov, Pavlo Serhienko
16:00	Coffee Break	
16:30	Models of Parallel Fuzzy Logic Conclusion	Serhii Yershov, Roman Ponomarenko
17:00	Some Parallel Algorithms for Solving Eigenvalue Problems on Hybrid Computers	Oleksii Chystyakov
17:30	Hybrid Single-Node Algorithm for Factorization of Sparse Matrixes of Block Structure	Vladimir Sidoruk

Oral presentations Monday 22 October

KPI, Building 13 (IASA), Auditorium 2

**Simulation & Data Analysis Session**

14:30	GPU algorithms for solving time-fractional diffusion equation with generalised Caputo derivative with respect to a function	Vsevolod Bohaienko, Volodymyr Bulavatsky, Anatoliy Gladky
15:00	Feature extraction of digital rock image via convolutional autoencoders	Yunfeng Bai, Vladimir Berezovsky, Evgeny Osipov
15:30	Quantum-mechanical calculations of halogen substituted of uracils and its complexes with graphene by using EGI grid resources	Yuri Rubin, Leonid Belous, Alexandr Ivanov, Victor Karachevtsev
16:00	Coffee Break	
16:30	Multidimensional analysis in characterizing gastric pathologies by non-invasive indicators	Oksana Lavrenchuk, Andriy Kharchenko
17:00	The Solution for Parallel Computing the Functions Constructed in Web Browser with R-operations	Roman Uvarov
17:30	Parallelization on a cluster and in grid of the synthetic seismogram calculation for super-large seismic field models on the example of the profile DOBRE-4	Oleksandr Kolomiyets, Katerina Kolomiyets

Oral presentations Tuesday 23 October

KPI, Building 13 (IASA), Auditorium 5

**Methods & Technology Session**

9:30	Methods of Minimizing Computing Resources when Processing "Big Data"	Olena Syrotkina, Iryna Udovyyk, Mykhaylo Alekseyev
10:00	Digital Filter Design using VHDL	Anatoliy Sergiyenko, Anastasia Serhienko
10:30	Parallel solution in fast methods of timer coding of information	Ruslan Skuratovskii, Evgeniy Osadchiy
11:00	Algorithm for estimating solutions of some ill-conditioned systems of linear algebraic equations	Evgen Shevchenko, Vladimir Masol
11:30	Coffee Break	
12:00	Parallel computer algebra: a new scheme for controlling the parallelization of matrix recursive algorithms	Gennadi Malaschonok, Alla Sydco
12:30	Scalability of static algorithms using the method of homomorphic images	Gennadi Malaschonok, Sergey Khvorov
13:00	Development of the PARKS-WCF system	Oleksii Fedorus
13:30	Centralized synthesis in the grid environment of reconfigurable information security tools	Sergii Gilgurt

**Modeling & Applications Session**

9:30	Distributed Computing in Molecular Modeling: Practical Experience on the Joint ISMA-ISC Cluster	Oleg Zhikol
10:00	Numerical Simulation of Flows around Unsteady Moving Bodies	Yaroslav Zagumennyi, Genadii Voropaiev
10:30	Compound single-electron density matrices of 33,432 molecules: creation of data set and its statistical analysis	Valerii Chuiko, Tymofii Nikolaienko
11:00	Spin-lattice simulation of 3D magnetic nanodrafts with geometrically controlled material parameters	Artem Tomilo, Oleksandr Pylypovskyi, Kostiantyn Yershov, Denis Sheka
11:30	Coffee Break	
12:00	Parallel algorithm for solving a multi-extreme problem of optimal loading of power systems	Oleksii Lykhovyd, Petro Stetsyuk
12:30	Numerical research of singular integral equations systems of the first kind and an indefinable index	Igor Sayko, Boris Panchenko, Yuri Kovalev
13:00	Implementation of Numerical Experiment for Analysis of Rock Porous Properties by Sonic Well-Logging	Valerii Khalimendik, Vadim Tulchinsky
13:30	High-Performance Recurrent-and-Parallel Computations in Inductive Modelling Algorithms	Serhiy Yefimenko, Volodymyr Stepashko, Andriy Pavlov

## Site Map

