

**7th International Young Scientists Conference in Computational science 2018
(YSC 2018)**

02 – 06 July, 2018 Heraklion, Greece

Venue:

Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science
 N. Plastira 100
 Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece

Seminar Room 1, FORTH's Main Building, 1st floor

Monday, 2nd July

08:45 – 09:00	Registration
09:00 – 09:30	Welcome Address
09:30 – 10:30	Keynote lecture: Polyvios Pratikakis, University of Crete Task-Parallel Programming Models
10:30 – 11:00	Coffee Break
11:00– 12:30	Young Scientists Presentations Session Chair: Polyvios Pratikakis, University of Crete Vladislav Sovrasov Comparison of dimensionality reduction schemes for derivative-free global optimization algorithms Viacheslav Shalamov Reinforcement-based Method for Simultaneous Clustering Algorithm Selection and its Hyperparameters Optimization Artem Danshin The development of parallel algorithms and programs for solving the stationary multiparticle schrodinger equation by the monte carlo method on the example of states of atomic systems Oksana Severiukhina A comparative study of graph partitioning algorithms for simulation of information spread in a multi-community landscape Alexey Zabashta Spanning of Meta-Feature Space for Travelling Salesman Problem
12:30 – 13:30	Lunch time
13:30 – 15:00	Young Scientists Presentations Session Chair: Ioannis (Yiannis) Kamarianakis, FORTH Denis Shaykhislamov An approach for dynamic detection of inefficient supercomputer applications Evgeniy Kuklin LiFlow Web Service for Quick Launch of Large Experiment Series on Supercomputers Artur Malinowski Three levels of fail-safe mode in MPI I/O NVRAM distributed cache Denis Parfenov Comprehensive approach for optimization traffic routing and using network resources in a virtual data center Eleni Kanellou A Flexible Datacenter Simulator Kiriakos Paraskevas Virtualized Multi-Channel RDMA using Software-Defined Schedulings
15:00 – 15:30	Coffee Break
15:30 – 16:30	Keynote lecture: Ioannis (Yiannis) Kamarianakis, FORTH, Greece How many filters are enough? A new algorithm for Eigenvector Space-Time Filtering
16:30 – 17:30	Tour in the Campus
18:00 – 19:00	Welcome reception

Tuesday, 3rd July

09:00 – 10:00	Keynote lecture: Klavdiya Bochenina, ITMO University “Social networks: entities, contexts and data-driven models”
10:00 – 10:30	Coffee Break
10:30 – 12:30	Young Scientists Presentations Session Chair: Klavdiya Bochenina, ITMO University Tatiana Kutuzova Market basket analysis of heterogeneous data sources for recommendation system improvement Artem Popov Adaptive Look-alike Targeting in Social Networks Advertising Ivan Nuzhdenko Methods for finding places of person’s financial interest using open data Danila Vaganov A comparative study of social data similarity measures related to financial behavior Timur Sokhin Semi-automatic sentiment analysis based on Topic modeling Amir Uteuov Combined document embedding and hierarchic topic model for social media texts analysis Oksana Severiukhina Parallel forecasting of community-wide information spread with assimilation of social network data
12:30 – 13:30	Lunch time
13:30 – 14:30	Keynote lecture: Anna Kalyuzhnaya, ITMO University TBA
14:30 – 15:30	Young Scientists Presentations, Session Chair: Anna Kalyuzhnaya, ITMO University Nikolay Nikitin Case-adaptive ensemble technique for met-ocean data restoration Pavel Vychuzhanin Anomalies Detection in Metocean Simulation Results Using Convolutional Neural Networks Elena Volzhina. Machine learning methods in weather forecasts Svetlana Dmitrieva. A Method of Building a Forecast Model for Multiparameter Dynamic Engineering Systems and its Approbation on the example of Automatic Mobile Weather Station
15:30 – 16:00	Coffee Break
16:00 – 17:00	Keynote lecture: Yannis Pantazis, FORTH, Greece “Sparse Inference of Dynamical Systems with Application in Natural Sciences”

Wednesday, 4th July

09:00 – 10:00	Keynote lecture: Pavlos Pavlidis, FORTH, Greece “Computational methods to analyze large genomic data and infer targets of positive selection in natural populations”
10:00 – 10:30	Coffee Break
10:30 – 12:30	Young Scientists Presentations Session Chair: Pavlos Pavlidis, FORTH Timofei Epanchintsev. Impact of the cardiac tissue anisotropy on spiral wave superseding: a simulation study with the use of ionic cell models Kirill Magoev Application of clustering methods for detecting critical acute coronary syndrome patients Mariia Kalmykova. An approach to point-to-point reconstruction of 3D structure of coronary arteries from 2D X-ray angiography, based on epipolar constraints Alva Presbitero A Game-Theoretic Approach in Modeling Neutrophils’ Response to Various Levels of Insults Alva Presbitero Coupling Game Theory and Discrete-Event Simulation for Model-Based Ambulance Dispatching Tesfamariam Abuhay. Investigating Application of Change Point Analysis in Monitoring Health Condition of Acute Coronary Syndrome Patients
12:30 – 13:30	Lunch time
13:30 – 14:30	Young Scientists Presentations

	<p>Session Chair: Alexandra Klimova</p> <p>Kirill Golubev A framework for a multi-agent traffic simulation using combined behavioral models</p> <p>Andrew Simonov Multi-agent crowd simulation on large areas with utility-based behavior models: Sochi Olympic Park Station use case</p> <p>Anastasiia Lantseva Assessment of pedestrian flow volumes through public transport modeling</p> <p>Varvara Ingilevich Crime rate prediction in the urban environment using social factors</p>
14:30 – 15:00	Coffee Break

Thursday, 5th July

09:00 – 10:00	<p>Denis Nasonov, ITMO University TBA</p>
10:00 – 10:30	Coffee Break
10:30 – 12:30	<p>Young Scientists Presentations, Session Chair: Denis Nasonov, ITMO University</p> <p>Anton Govorov The recognition and classification of objects based on the modified distance metric</p> <p>Evgeny Zamyatin Learning to Generate Chairs with Generative Adversarial Nets</p> <p>Stepan Kochemazov Comparative Study of Combinatorial Algorithms for Solving the Influence Maximization Problem in Networks under a Deterministic Linear Threshold Model</p> <p>Gali-Ketema Mbogo Deep semi-supervised salient regions detection using joint predictions of unsupervised models</p> <p>Max Petrov Adaptive performance model for dynamic scaling Apache Spark Streaming</p> <p>Roman Wiatr Optimising Kafka for Stream Processing in Latency Sensitive Systems</p> <p>Klodjan Klodi Hidri HetSpark: A Framework that Provides Heterogeneous Executors to Apache Spark</p>
12:30 – 13:30	Lunch time
13:30 – 20:00	Excursion (for presenters)

Friday, 6th July

09:00 – 10:00	<p>Keynote lecture: Ioannis Remediakis Modeling the shape and properties of nanoparticles</p>
10:00 – 10:30	Coffee Break
10:30 – 11:30	<p>Young Scientists Presentations Session Chair: Anna Bilyatdinova, ITMO University</p> <p>Petra Bacova. Modelling of novel polymer materials through atomistic molecular dynamics simulations</p> <p>Evangelia Kalligiannaki. Effective mesoscale models of molecular systems at and out of equilibrium</p> <p>Konstantinos Mamis Generalized FPK equations corresponding to systems of nonlinear random differential equations excited by colored noise</p> <p>Sergey Smirnov and Vladimir Voloshinov On Domain Decomposition Strategies to Parallelize Branch-and-Bound Method for Global Optimization in Everest Distributed Environment</p> <p>Grigory Trifonov Nocturnal Lights: object-oriented catalog of the nighttime Earth light sources</p>
11:30 – 12:30	<p>Keynote lecture: Ekaterina Sheina, ITMO University An introduction to structure and dynamics of complex networks</p>
12:30 – 13:30	Lunch time and group photo