YSC young scientists conference

11th International Young Scientists Conference in Computational Science

SCHEDULE

Date/time	10.09.2022 SATURDAY	11.09.2022 SUNDAY	12.09.2022 MONDAY	13.09.2022 TUESDAY
	Pre-conference Days		Day 1	Day 2
09:30 – 10:00	Arrival of the conference participants		Official opening of the conference Gathering of participants, registration, welcome buffet	
10:00 – 10:30			Gradient-free method for stochastic convex optimization	Computational City Science: from HPC to AI
10:30 – 11:00			Alexander Gasnikov MIPT, ISP RAS	Alexander Boukhanovsky ITMO
11:00 – 11:30			Model Risk and Meta-learning	Biomarkers of aging: lining to XAI
11:30 – 12:00		Bus sightseeing tour Walk&talk event	Alexey Masiutin HSE	Mikhail Ivanchenko NNSU
12:00 – 12:30			Break	
12:30 – 13:00			Young Scientists Presentations	
13:00 – 13:30				
13:30 – 14:00				
14:00 – 14:30				
14:30 – 15:00		Lunch time		
15:00 – 15:30				
15:30 – 16:00		ITMO University tour Walk&talk event	Школа. День 1. Планируем решение задачи: Подготовка заявок на междисциплинарные проекты с элементами ML: постановка проектных задач школы Александр Бухановский	Школа. День 2. Строим модель на данных: Как построить хорошую модель: автоматическое МО для временных рядов и изображений Илья Ревин
16:00 – 16:30				
16:30 – 17:00			Суть в данных: можно ли построить модель, и как оценить достижимость результата предсказательного моделирования Антон Кованцев	Как построить хорошую модель: гибридные вероятностные модели для оценки причинно-следственных связей Ирина Деева
17:00 – 17:30				
17:30 – 18:00			Coffee break	
18:00 – 18:30	Pre-party Walk&talk event		Visiting the National Center for Cognitive Research of ITMO University	Школа. День 2.: **Работа над проектами**
18:30 – 19:00				
19:00 – 19:30				
19:30 – 20:00				

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Date/time	14.09.2022 WEDNESDAY	15.09.2022 THURSDAY	16.09.2022 FRIDAY	17.09.2022 SATURDAY
	Day 3	Day 4	Day 5	Day 6
10:00 – 10:30	Deep Learning Algorithms for Digital Imaging Peter Gladilin Huawei	Application of artificial intelligence to mechanics Alexey Kornaev Innopolis	ML and data analysis in casual game marketing tasks: the Playrix case Ivan Derevitsky Playrix	
10:30 – 11:00				
11:00 – 11:30	Attention in random forests: How to implement attention without gradient-based algorithms Lev V. Utkin, Andrei V. Konstantinov SPbPU	Complexity Science: A new road to reality Peter Sloot UVA	Similarity analysis for well performance ranking Nikita Bukhanov Aramco	
11:30 – 12:00				
12:00 – 12:30	Coffee break			
12:30 – 13:00	Young Scientists Presentations			
13:00 – 13:30				
13:30 – 14:00				
14:00 – 14:30				
14:30 – 15:00	Lunch time	Lunch time		
15:00 – 15:30	Школа. День 3. Оцениваем модель: Действительно ли модель удачна: оценка качества модели ИИ на основе данных Сергей Иванов, Иван Ходненко			
15:30 – 16:00		Школа. День 4. Доводим до заказчика: Приятно ли это брать в руки: обеспечение качества кода и документирования модели Давид Добряков	Школа. День 5.: Работа над проектами	
16:00 – 16:30	Школа. День 3. Оцениваем модель: А можно ли лучше: сравнение, ранжирование и реинжиниринг моделей ИИ Александра Ватьян			
16:30 – 17:00		Школа. День 4. Доводим до заказчика: Человеческий фактор: ИИ и профессиональные компетенции Олег Басов, Анастасия Лаушкина	Школа. День 5.: Защита проектов	Closure of the Conference After-party on the ship Walk&talk event
17:00 – 17:30	Road treats			
17:30 – 18:00		Break		
18:00 – 18:30	Excursions to the Yandex office Walk&talk event	Школа. День 4.: Работа над проектами		
18:30 – 19:00			Science bar hopping Walk&talk event	
19:00 – 19:30				
19:30 – 20:00				
20:00 – 20:30				
20:30 – 21:00				
21:00 – 21:30				

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YOUNG SCIENTISTS' PRESENTATIONS

12.09.2022 MONDAY 12:30 – 14:30	13.09.2022 TUESDAY 12:30 – 14:30	14.09.2022 WEDNESDAY 12:30 – 14:30	15.09.2022 THURSDAY 12:30 – 14:30	16.09.2022 FRIDAY 12:30 – 14:30
URBAN	IINDUSTRY	SOCIETY	MEDICINE	THEORY
Ariel Scagliotti, David Margarit, Marcela Reale and Guillermo Jorg Influence of Setting and Predictors in Neural Network Model Performance: a Buenos Aires Air Quality Case	**Md. Ashiqur Rahaman Nishad, Meherabin Akter Mitu and Nusrat Jahan** Potato Leaf Disease Classification using K-means Clustering Segmentation with Deep Learning Networks	**Mikhail Sinko, Anatoly Medvedev, Ivan Smirnov and Anastasiia Laushkina** Method of Constructing and Identifying Predictive Models of Human Behavior Based on Information Models of Non-verbal Signals	**Ksenia Shkileva and Nikolai Zolotykh** Explainable Artificial Intelligence Techniques in Medical Signal Processing	**Julia Gurieva, Evgenii Vasiliev and Lev Smirnov** Application of conservation laws to the learning of physics-informed neural networks
Yamen Habib and Andrey Filchenkov Multi-Agent Reinforcement Learning for Multi Vehicles One-commodity Vehicle Routing Problem	**Mustapha Lawal, Zahradden Bala, Fatima Zambuk and Badamasi Imam** Transfer Learning Approach for Malware Images Classification on Android Devices Using Deep Convolutional Neural Network	**Arthur Minimullin and Anatoliy Surikov** Multimodal machine learning for emotion recognition	**Kseniya Sahatova and Ksenia Balabaeva** An Overview and Comparison of XAI Methods for Object Detection in Computer Tomography	**Ekaterina Plesovskaya and Sergey Ivanov** Hierarchical Classification on the MNIST Dataset Using Truncated SVD and Kernel Density Estimation
Margarita Mishina, Alexander Khrulkov, Valentina Solovieva, Liubov Tupikina and Sergey Mityagin Method of intermodal accessibility graph construction	**Ilya Reutov, Denis Moskvin, Maxim Venediktov and Alyona Voronova** Generating Synthetic Data to Solve Industrial Control Problems by Modeling a Belt Conveyor	**Timothy Walter Cuizon and Hernan Alar** Lexicon-based Sentence Emotion Detection Utilizing Polarity-Intensity Unit Circle Mapping and Scoring Algorithm	**Nasu Mbimi Wormi, Badamasi Imam and Mustapha Lawal** Deeper Architecture for Brain Age Prediction Based on MRI Images Using Transfer Learning Technique	**Viacheslav Shalamov, Valeria Efimova and Andrey Filchenkov** Faster Hyperparameter Optimization via Finding Minimal Regions in Random Forest Regressor
Boris Nizomutdinov and Anna Uglova Development of a method for assessing the safety of the urban environment based on the analysis of the communication practices of city residents in geoinformation services	**Vasilii Oskolkov, Maksim Akkuratnyy, Alik Yakubov, Aleksandr Kurkin, Konstantin Popov, Nikita Shakhanov, Evgeniy Ershov, Ivan Levichev and Igor Varfolomeev** Development of a System for Detecting and Notification Incomplete Tapping of Cast Iron from a Blast Furnace Based on Computer Vision Methods	**Vladimir Panov, Mikhail Kovalchuk, Anastasiia Filatova and Sergey Teryoshkin** MuCAAT: Multilingual Contextualized Authorship Anonymization of Texts from social networks	**Israel Huaman, Pavel Zun, Oleg Shramko and Andrey Svitenkov** Coupling 1D blood circulation model and substance absorption model to study drug metabolization	**Andrei V. Konstantinov, Lev V. Utkin, Stanislav R. Kirpichenko, Boris V. Kozlov Andrey Y. Ageev** Random Forests with Attentive Nodes
Aleksandr Antonov Anomalies in feedback: detection of hidden events in dynamics of city service complaint reporting	**Mariia Rumiantceva and Andrey Filchenkov** Deep Learning and Pseudo-Labeling for Ore Granulometry	**Evgeniia Shchepina** Modeling the trajectories of interests and preferences of users in digital social systems	**Nikita Detkov, Ksenia Balabaeva and Sergey Kovalchuk** Exploring the relationship between error and interpretation of the segmentation model's prediction	**Maksim Kondakov and Valentina Y. Guleva** Dynamics of multiagent reinforcement learning compared to synchronisation dynamics of Kuramoto oscillators
Julia Sergeeva, Anastasiia Filatova, Mikhail Kovalchuk and Sergey Teryoshkin SemAGR: semantic method for accurate geolocations reconstruction within extensive urban sites	**Geesara Kulathunga** A Reinforcement Learning based Path Planning Approach in 3D Environment	**Prabhat Kumar and S. Suresh** FLAAP: An Open Human Activity Recognition (HAR) Dataset for Learning and Finding the Associated Activity Patterns	**Artem A. Bredikhin, Maxim V. Liulukin, Ekaterina A. Nikitina, Dmitriy V. Nikushchenko, Anton A. Stiopin and Yulia K. Mikholazhina** Diagnostics of motion sickness (kinetosis) and training of resistance to it in VR maritime simulators	**Elizaveta Stavinova, Andrey Gurov, Anton Lysenko and Petr Chunaev** Performance Ranking of Recommender Systems on Simulated Data
George Kontsevik, Aleksey Sokol, Vladislav Evstigneev, Yuri Bogomolov, and Sergey Mityagin Modeling the citizens settlement in residential buildings	**Elena Egorova, Gleb Glukhov and Egor Shikov** Customer transactional behaviour analysis through embedding interpretation	**Tihonova Olga, Alexander Khrulkov, Alexander Antonov, Danila Parygin, Stanislav Sobolevsky and Sergey Mityagin** Extraction of urban context hidden topics based on the Internet publications analysis	**Alexandra Matveeva and Vasiliy Leonenko** Application of Gaussian process regression as a surrogate modeling method to assess the dynamics of COVID-19 propagation	**Anna Bubnova** Approach of variable clustering and compression for learning large Bayesian networks
Iuliia Krasnoperova and Valentina Soloveva A method developed for selecting street-road network sections to create pedestrian public spaces, illustrated by the example of St. Petersburg with the use of transport modelling	**Ilyas Varshavskiy, Elizaveta Stavinova and Petr Chunaev** Forecasting railway ticket demand with search query open data **Aleksei Korneev, Mikhail Kovalchuk, Anastasiia Filatova and Sergey Tereshkin** Towards comparable event detection approaches development in social media	**Tihonova Olga, Yuri Bogomolov, Devashish Khulbe, Stanislav Sobolevsky** Detecting a citizens' activity profile of an urban territory through natural language processing of social media data	**Sergey Stasenko and Victor Kazantsev** Astrocyte regulation of non-periodic bursting activity of a spiking neural network	**Yury Kaminsky and Irina Deeva** BigBraveBN: algorithm of structural learning for bayesian networks with a large number of nodes
Alexander Khrulkov, Mishina Margarita, Stanislav Sobolevsky City services provision assessment algorithm	**Anna Muratova, Ignatov Dmitry, Ekaterina Mitrofanova and Robiul Islam** Explainable Machine Learning for Sequences of Demographic Statuses	**Andrei Gurov, Elizaveta Evmenova and Petr Chunaev** Supervised community detection in multiplex networks based on layers convex flattening and modularity optimization	**Levon Abramyan, Ilia Derevitskii, Alina Babenko and Yulia Kononova** Predictive Dynamical Interpretable Modeling of Disease Trajectories: Postoperative Observation After Myocardial Infarction	**Denis Nasonov, Alexei Pruduis and Sergey Teryoshkin** Evolutionary algorithm for generating optimized configuration of computational distributed cluster considering simulation environment and specified workload
Aleksey Rezvykh, Aleksandr Ovcharenko, Roman Lemeshkin and Sergey Kovalchuk Modeling the workflow of a field hospital in earthquake conditions	**Ivan Derevitsky** Approaches to collecting large arrays of public data on the Internet for the generative design of structures for dynamic pricing of ticket programs	**Mohamed Abdelkarim** Remmide Detection of Phishing URLs Using Temporal Convolutional Network		**Julia Schvartsberg and Alexander Hvatov** Discovery of multivariable algebraic expressions using evolutionary optimization
	Anastasiia Kireeva Development of a method for highlighting anomalies and filling gaps in open data used in the dynamic pricing model	**Sreenivas Sremath Tirumala** Extracting Features in Neural Networks weights for Efficient Transfer Learning		
	Anastasiia Shesterikova Development of a procedure for assimilation of data into a dynamic pricing model in order to adjust the structure of the ticket program over time			
	Gleb Glukhov Descriptive Analysis of Internet Public Data Applicable to Generative Design of Dynamic Pricing Structures for Ticketing Programs			

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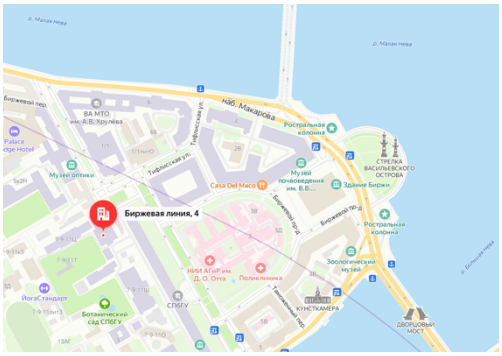
LOCATION

ITMO University

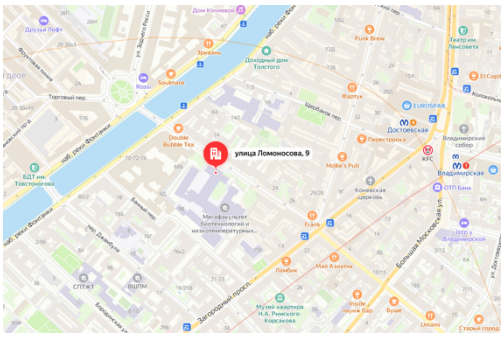
4, Birjevaya line,
Saint-Peterburg,
Russian Federation
199034



We are waiting for you on September 12 at 09:30, ITMO University, where the opening of the conference will take place.
The lectures and young scientists' presentations will also be there.

Zoom-room for online visitors:
https://us02web.zoom.us/j/83142549218?pwd=S0xwL3FvRzczSFFnT2ZQWUZrdlRHQT09

Conference: 831 4254 9218
Access code: 962916



Pre-party

ITMO University

9, Lomonosova street,
Saint-Peterburg,
Russian Federation
191002

Bus sightseeing tour

ITMO University

4, Birjevaya line,
Saint-Peterburg,
Russian Federation
199034

We are waiting for you on September 11 at 11:15,
near ITMO University, on Academician Sakharov Square.

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Please, pay attention, that some walk&talk events, have restrictions on the number of participants.
If you have not registered in advance, write, or call us:

+7 (812) 909 3156
nccr@itmo.ru

Follow this group to be aware of the changes:
https://t.me/+c82DbqZUP_pjNmYy

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