Session Program

22–26 Jun 2026



MATHEMATICAL MODELING AND COMPUTATIONAL PHYSICS 2026

Mathematical Modeling and Computational Physics - MMCP'2026

Machine learning and big data analytics

Thursday 25 June

14:00

Machine learning and big data analytics

Session | **Location:** MLIT, Room 420

14:15–14:30 **Application of machine learning to the problem of toroidal plasma control**

Speaker
Mikhail Saakyan

14:30–14:45

Interpretability Study of Transformer-Based PID Models in the T2K Super Fine-Grained Detector

Speaker
Виктория Кисеева

14:45–15:00

Machine Learning Approaches for Calibration of Low-Cost PM2.5 Sensors: From Linear Regression to Quantum Models

Speaker
Mariia Khvostova

15:00–15:15

Interpretable Kolmogorov-Arnold Network (KAN) Architecture for Real-Time DDoS Detection in IoT Environments

Speaker
Hakizimana Evelyne

15:15–15:30 **Glia-to-neuron ratio estimation from histological images using machine learning**

Speakers
Dmitriy Divakov, Enoel Arrokho

15:30–15:45 **Machine Learning to detect collisions leading to the formation of a diatomic pair**

Speaker
Stanislav Kim

15:45–16:00

Improving an AI Assistant in a Web Application for Fitting Experimental Data Using Retrieval-Augmented Generation and Hyperparameter Optimization

Speaker
Konstantin Lukyanov

16:00

16:20

Machine learning and big data analytics

Session | **Location:** MLIT, Room 420

16:20–16:35

Methods of orchestration of non-deterministic tasks in analytical workflows: a hybrid of static graphs and agent subgraphs, stop policies and observability

16:35–16:50

Выявление устойчивых трендов и редких тем в патентных данных на основе консенсуса трех принципиально разных методов и семантической унификации

Speaker
Дарья Зрелова

16:50–17:05 **Machine learning approaches to quality assessment in automated recruitment systems**

Speaker
Anastasia Novitskaya

17:05–17:20 **DU-net architecture for geological inversion with variability in data recording system**

Speaker
Maxim Nikishin

17:20–17:35 **Application of AI agents for particle accelerator modeling**

Speaker
Natalia Kizhaeva

17:35–17:50

Сравнительный анализ методов объединения семантических моделей в задаче сопоставления вакансий рынка труда и образовательных компетенций

Speaker
Анна Ильина

17:50–18:05

Multi-Agent Architecture for Intelligent Search in a Scientific and Technical Knowledge Base

Speaker
Tatiana Korenkova

18:05–18:20

Development of a software module for identifying the equations of motion of agents in a multi-agent system using physically-based AI tools

Speaker
Alena Gushchina

18:35