Session Program

7–11 Jul 2025

11th International Conference "Distributed Computing and Grid Technologies in Science and Education" (GRID'2025)

Methods and Technologies for Experimental Data Processing

Tuesday 8 July

14:00

Methods and Technologies for Experimental Data Processing

Session | **Location:** Room 310

14:00–14:15 **Muon Shield optimization for SHiP experiment as HTC MC task**

Speaker
Евгений Курбатов

14:15–14:30
Implementing the universal framework for analysis of anisotropic flow for MPD and BM@N

Speaker
Mikhail Mamaev

14:30–14:45
Implementation of ACTS-based track reconstruction for the forward detector in the MPD experiment at NICA

Speaker
Nazar Burmasov

14:45–15:00 **Data Shift Problem in Machine Learning for Particle Identification**

Speaker
Vladimir Papoyan

15:00–15:15 **Logistic regression method for particle identification in MPD experiment**

Speaker
Danila Starikov

15:15–15:30 **SPD detector description and GeoModel**

Speaker
Aytadzh Allakhverdieva

15:30–15:45 **GAN-based simulation of microstrip triple GEM detector in the BM@N experiment**

Speaker
Mr Дмитрий Баранов

15:45–16:00
New highly scalable projection methods of linear programming with artificial neural networks

Speaker
Prof. Leonid Sokolinsky

16:00

16:30

Methods and Technologies for Experimental Data Processing

Session | **Location:** Room 310

16:30–16:45 **Interpreting and Controlling Latent Space Parameters of Auto-Ecoders**

Speaker
Alexander Kryukov

16:45–17:00 **Application of Normalizing Flows for Detecting Rare Events in Gamma-Ray Astronomy**

Speaker
Julia Dubenskaya

17:00–17:15
Automating the generation of C++ code for fitting models in an application FITTER_WEB based on artificial intelligence

Speaker
Татьяна Соловьева

17:15–17:30
Математические и компьютерные методы расчёта фрактальных параметров микрофотографий доменной структуры поверхности ферромагнитных кристаллов

Speaker
Anton Tsvetkov

17:30–17:45 **Fast Vertexing Code**

Speaker
Maria Dima

17:45–18:00
Automated machine learning spectrum unfolding for neutron spectrometry with Bonner spheres

Speaker
Константин Чижов

18:00–18:15
On some methods of training and fine-tuning of large language models on custom knowledge domains

Speaker
Prof. EUGENE SHCHETININ

18:15–18:30
Effective numerical-analytical method for modeling the dynamics of a fuel cell system for a pulsed-type reactor

Speaker
Mikhail Klimenko

18:30

Thursday 10 July

14:00

Methods and Technologies for Experimental Data Processing

Session | **Location:** Room 310

14:00–14:15 **Квантово-вдохновленный подход для производственного планирования**

Speaker
Mr Egor Grishin

14:15–14:30

Структурный подход к проектированию квантовых алгоритмов с использованием иерархии абстракций в PennyLane

Speaker
Ольга Иванцова

14:30–14:45

Progressive Hybrid Quantum-Classical Generative Adversarial Network for Image Generation

Speaker
Никита Рябов

14:45–15:00

Применение машинного обучения для предсказания формирования атомной пары из трехатомного столкновения

Speaker
Stanislav Kim

15:00–15:15 **On Neural Network Approach for Numerical Integration of Single and Double Integrals**

Speaker
Григорий Шипунов

15:15–15:30

ЗАЩИТА НЕЙРОСЕТЕВЫХ МОДЕЛЕЙ ОТ СОСТЯЗАТЕЛЬНЫХ АТАК ЧЕРЕЗ ОБЪЯСНИТЕЛЬНУЮ ВИЗУАЛИЗАЦИЮ

Speaker
Alexei Shevchenko

15:30–15:45 **Decentralised verifiable coded storage for secure distributed machine learning**

Speaker
Ekaterina Pavlova

15:45–16:00

Hybrid Continuous Authentication System Based on Risk Analysis and Keystroke Biometrics

Speakers
Iurii Matiushin, Vladimir Korkhov

16:00

16:30

Methods and Technologies for Experimental Data Processing

Session | **Location:** Room 310

16:30–16:45

Об одной программной реализации метода Монте-Карло для трансформации распределений при аналитически заданном описании закона измерения

Speaker
Aleksandr Stepanov

16:45–17:00
NNMD: программный пакет для обучения межатомных потенциалов с использованием функций Бехлера-Парринелло

Speaker
Mr Andrey Budnikov

17:00–17:15
TSVD-based neutron spectra unfolding by Bonner multi-sphere spectrometer readings with iteration procedure

Speaker
Alexei Chizhov

17:15–17:30 **Enhanced Retransmission Steganography Algorithm with Its Stegoanalysis Methods**

Speaker
Mr Diyorbek Ramazonov

17:30