**Session Program**

**22–26 Jun 2026**




MATHEMATICAL MODELING AND COMPUTATIONAL PHYSICS 2026

# Mathematical Modeling and Computational Physics - MMCP'2026

## *Plenary*

# Monday 22 June

10:00

## Plenary

**Session** | **Location:** MLIT, Conference Hall

10:00–10:30 **Opening**

10:30–11:00 **JINR scientific program**

**Speaker**
Elena Kolganova

11:00–11:30 **Methods, algorithms and software for processing experimental data at JINR**

**Speaker**
Dr Nikolay Voytishin

11:30–12:00
**On the competition of alternative Deep Learning algorithms for processing data from SPD and MPD experiments at NICA**

**Speaker**
Prof. Gennady Ososkov

12:00–12:30
**Status of ARIADNA collaboration for applied research at NICA facility and its requests for advanced computation techniques**

**Speaker**
Олег Белов

12:30–13:00
**AI-Driven Systematic Research on Oceanic Internal Solitary Waves: From SAR Image Interpretation to Governing Equation Discovery**

**Speaker**
Prof. Saheya Barintag

13:00

# Tuesday 23 June

09:25

## Plenary

**Session** | **Location:** MLIT, Conference Hall

09:30–10:00 **Schemes of Finite Element Method on Hyperparallelepiped Meshes**

**Speaker**
Александр Гусев

10:00–10:30 **On a Generic 2-Qubit Entangler**

**Speaker**
Arsen Khvedelidze

10:30–11:00
**Spatial confinement-deconfinement transition in accelerated gluodynamics within lattice simulation**

**Speaker**
Prof. Victor Braguta

11:00

11:20

## Plenary

**Session** | **Location:** MLIT, Conference Hall

11:20–11:50 **A digital platform for supercomputer modeling of complex technical processes**

**Speaker**
Sergey Polyakov

11:50–12:20
**Numerical solution of the time-dependent Schrödinger equation and modeling of nuclear transfer reactions**

**Speaker**
Viacheslav Samarin

12:20–12:50 **A Localized Kochen-Specker Theorem for Unsharp Measurements**

**Speaker**
Cristian S. Calude

13:00

# Wednesday 24 June

09:30

## Plenary

**Session** | **Location:** MLIT, Conference Hall

09:30–10:00

### Analytical and Numerical Treatment of Molecular Integrals – The Case of the Three-Center Nuclear Attraction Integral

**Speaker**
Hassan Safouhi

10:00–10:30

### An Overview of the Numerical Solution of Gauge Integrals

**Speaker**
Gheorghe Adam

10:30–11:00

### Precision Physics with the Hydrogen Molecular Ion

**Speaker**
Dr Vladimir Korobov

11:00

11:20

## Plenary

**Session** | **Location:** MLIT, Conference Hall

11:20–11:50

### Discrete-variable representation method in quantum physics

**Speaker**
Prof. Vladimir Melezhik

11:50–12:20

### Применение компьютерных вычислений для исследования универсальных свойств (супер)алгебр Ли

**Speaker**
Alexander Provorov

12:20–12:50

### Neuroscientific principles in designing hybrid systems

**Speaker**
Irina Shoshina

13:20

# Thursday 25 June

09:30

## Plenary

**Session** | **Location:** MLIT, Conference Hall

09:30–10:00 **Quantum Informatics, Nanobioelectronics and Artificial Intellect**

**Speaker**
Prof. Виктор Лахно

10:00–10:30
**Software Innovations in MPD: Advanced Modeling, Algorithmic Developments, and Ecosystem Modernization in MpdRoot**

**Speaker**
Dr Slavomir Hnatic

10:30–11:00 **Theory challenges for present and future colliders**

**Speaker**
Vitaly Yermolchyk

11:00

11:20

## Plenary

**Session** | **Location:** MLIT, Conference Hall

11:20–11:50 **Supercomputing without supercomputers**

**Speaker**
Alexander Bogdanov

11:50–12:20 **Mathematical Modelling in Radiation Biology**

**Speaker**
Prof. Aleksandr Bugay

12:20–12:50 **Progress of the Geant4 toolkit for LHC and NICA experiments**

**Speaker**
Prof. Vladimir Ivanchenko

13:00