Session Program

22–26 Jun 2026



MATHEMATICAL MODELING AND COMPUTATIONAL PHYSICS 2026

Mathematical Modeling and Computational Physics - MMCP'2026

Methods of quantum computing and quantum information processing

Tuesday 23 June

14:00

Methods of quantum computing and quantum information processing

Session | **Location:** MLIT, Room 310

14:00–14:15 **Quantum reservoir classifiers based on decoherence-free subspaces**

Speaker
Dr Mikhail Altaisky

14:15–14:30 **Quantum Version of Decision Tree Construction Algorithm Subroutine**

Speaker
Ilnaz Mannapov

14:30–14:45 **Возможности и перспективы применения квантовых и квантово-инспирированных отжигателей для решения задач управления сложными технологическими системами на примере задачи управления энерго-электро-сетями**

Speaker
Николай Владимирович Малетин

14:45–15:00 **Neural network-based optimization of parameter search in quantum hashing**

Speaker
Mr Ivan Shaimardanov

15:00–15:15 **Quantum Hashing with QKD States**

Speaker
Alexander Vasiliev

15:15–15:30 **Implementation of the Quantum Hashing Algorithm for Real Devices**

Speaker
Kamil Khadiev

15:30–15:45 **Probabilistic perfect transfer of arbitrary multiqubit pure state**

Speaker
Dr Alexander Zenchuk

15:45–16:00 **Towards description of the orbifold $\mathrm{SU(2)\times SU(2)}\backslash \mathrm{SU(4)}/\mathbb{T}^3$ as an entanglement space of two qubits**

Speaker
Dimitar Mladenov

16:00

16:20

Methods of quantum computing and quantum information processing

Session | **Location:** MLIT, Room 310

16:20–16:35 **On randomization in variational quantum algorithms**

Speaker
Alexander Tsirulev

16:35–16:50
Connection of dipolar spin dynamics and multiple quantum dynamics of two-spin system with dephasing relaxation

Speaker
Dr Georgii Bochkin

16:50–17:05 **Spin Entanglement in the Deuteron within a Simple Algebraic Model**

Speaker
Airat Sitdikov

17:05–17:20 **Two-parameter quantum hashing based on difference sets**

Speaker
Kirill Stepanenko

17:20–17:35
DNA molecule as a quantum channel for the effective transfer of a photoinduced charge carrier

Speaker
Виктор Юшанхай

17:35–17:50
Transition to a many-body localization state in the disordered spin-1/2 Ising chain in the tensor network approach

Speaker
Людмила Сюракшина

18:20

Friday 26 June

09:00

Methods of quantum computing and quantum information processing

Session | **Location:** MLIT, Room 310

09:00–09:15

Dissipative dynamics of multiple-quantum NMR coherences in an ensemble of hundreds of equivalent spin-1/2 nuclei

Speaker
Ilia Lazarev

09:15–09:30

On Implementation of Variational Quantum algorithm on the HybriLIT Quantum Testbed applied to the Ising Model with a Transverse Field

Speaker
Ms Ksenia Verkhovtseva

09:30–09:45

QTensorNet: A High-Performance Tensor-Network-Based Toolkit for Many-Body Quantum Simulations

Speaker
Dr Yauheni Talochka

09:45–10:00

Supercomputer simulation of quantum walks to solve complex computational problems

Speaker
Константин Петрищев

10:00–10:15

Propagation of Two-Photon Zernike States in Atmospheric Turbulence

Speaker
Vahagn Abgaryan

10:15–10:30

Implementing 6D Parameterized 2-Qubit Gates on Bauman Octillion Platform

Speaker
Dr Alla Bogolubskaya

11:00