Session Program

18–22 Oct 2026

30th International Scientific Conference of Young Scientists and Specialists (AYSS-2026)

Theoretical Physics

Sunday 18 October

12:15

Theoretical Physics

Session | **Location:** Conference hall 1

12:15–12:30 **Electromagnetic Properties of the 12C Nucleus within the 3α Model**

Speaker
Saidov Matlub

12:30–12:45 **Prediction of Nuclear Properties in SHE Region Based on Local Mass Relations**

Speaker
Valentine Ulyanova

12:45–13:00 **Density Dependent Hyperonic Interactions and Characteristics of Neutron Stars**

Speaker
Mr Semyon Mikheev

13:00

14:30

Theoretical Physics

Session | **Location:** Conference hall 1

14:30–14:45 **Vector Meson Parton Distribution Functions in the Soft-Wall AdS/QCD Model**

Speaker
Minaya Allahverdiyeva

14:45–15:00
Probing Jet Quenching via the Double Nuclear Modification Factor in Relativistic Heavy-Ion Collisions

Speaker
Aleksei Chernyshov

15:00–15:15
Applicability of the Dirac–Fock Method Combined with Core Polarization for Calculating Atomic Properties of Alkali Elements

Speaker
Artem Bobylev

15:15–15:30
Approximation of Potential Energy Curves of the SiO^+ Molecular Ion Using Various Analytic Functions

Speaker
Petr Turchenko

15:30–15:45 **Analysis of Relativistic Effects for Correlation Correction in Highly Charged Ions**

Speaker
Artyom Moshkin

15:45

16:00

Theoretical Physics

Session | **Location:** Conference hall 1

16:00–16:15

Theoretical Study of Electronic Structure and Properties of the ThF_4 Crystal by the Compound-Tunable Embedding Potential Method

Speaker
Aleksandra Krasnikova

16:15–16:30 **Critical Behavior of a Tensor ϕ^{3} Model: Five-Loop Renormalization Group Analysis**

Speaker
Diana Davletbaeva

16:30–16:45 **Renormalization Group Analysis of the $O(n)$-symmetric $\varphi^4+\varphi^6$ Model**

Speaker
Aleksandr Trenogin

16:45–17:00 **Analysis of the Excitation Spectrum in Magnetic Skyrmion Structures**

Speaker
Anastasia Mikheeva

17:00

Monday 19 October

11:15

Theoretical Physics

Session | **Location:** Conference hall 1

11:15–11:30 **Magnon Thermal Hall Effect in Skyrmion Crystal**

Speaker
Yulia Baramygina

11:30–11:45 **Dyadic Green's Fuction of an Arbitrary Anisotropic Planarly-Layered Medium**

Speaker
Aliaksandr Arlouski

11:45–12:00 **Helical Metamaterials with Strong Spatial Dispersion**

Speaker
Petr Korolev

12:00–12:15 **Diffraction as an Orbital Angular Momentum Diagnostic for Twisted Matter Waves**

Speaker
Mr Maksim Maksimov

12:15–12:30 **Møller Scattering of Relativistic Twisted Wave Packets**

Speaker
Anton Murtazin

12:30–12:45
Numerical Modeling of Non-Stationary Accretion Dynamics in Transient Black Hole X-ray Binaries

Speaker
Arseniy Khadartsev

12:45–13:00
Generation of Faraday Waves in a Two-Component Dipolar Bose-Einstein Condensate with Rabi Coupling

Speaker
Bekzod Turmanov

13:00

14:30

Theoretical Physics

Session | **Location:** Conference hall 1

14:30–14:45 **Testing Thawing Gravity with DES Y3 in the DESI Era**

Speaker
Nikita Nedelko

14:45–15:00
Functional Decompositions and Algorithmic Basis Reduction in Multidimensional FEM Schemes

Speaker
Oleg Kovalev

15:15

15:00–15:15

Numerical Elimination Identification of Singularities in Multidimensional Improper Integrals of Second Type

Speaker

Daviti Goderidze