

**Session Program**

27–31 Oct 2025

**29th International Scientific Conference of Young  
Scientists and Specialists (AYSS-2025)**

***Poster session & Welcome drinks***

# Monday 27 October

18:30

## Poster session & Welcome drinks

Poster Session | Location: JINR International Conference Centre, 2 Stroiteley st.

### Improved Analysis of the Hydrophilic Dimensions of Membrane Proteins from X-ray Crystallographic Data

**Speaker**

Semyon Zhuravlev

### Hyperspherical Function Method for Calculating Binding Energies of Three-Body Systems

**Speaker**

Artur Gapchenko

### Strontium Migration in SiC Under Uniform Helium Implantation.

**Speaker**

Tshepiso Kadi

### Effects of 710 MeV Bi Ion Irradiation and Annealing on Se-Implanted SiC

**Speaker**

Tshepo Mabelane

### Comparative effects of swift heavy ion irradiation on SiC implanted with Ag alone and Ag + He

**Speaker**

Rifumo Chauke

### Calibration and Simulation of the CMD-3 Endcap BGO Calorimeter: Studies of Electronic Nonlinearity and Energy Resolution

**Speaker**

Ivan Dubrovin

### Sensitivity study of the ATLAS experiment at the LHC to Higgs-boson production in association with a single top quark for Run 3 and upcoming High-Luminosity run

**Speaker**

Alina Dadashova

### Investigation of magnetization dynamics in $\phi 0$ Josephson Junctions under the influence of an external EM field

**Speaker**

Dmitry Malkin

### SPD Beam-beam counter detector signal response uniformity tests with cosmic muons

**Speaker**

Kseniya Tertyshnaya

### Fabrication and Characterization of Luminescent Polymer Nanocomposite Films

**Speaker**

Ms Samkelisiwe Khambule

### Helium and silver co-implantation into SiC at 350 °C and sequential annealing: Effects of temperature and helium bubbles on SiC structure and migration behaviour of silver

**Speaker**  
Sive Mtsi

### Absorption properties of boron nitride quantum dots: Effects of solvents

**Speaker**  
Mr Ilia Simonenko

### Comprehensive Analysis of the Effect of Gamma Irradiation on Defect Dynamics and Structural Stability in ZrC Nanocrystals

**Speaker**  
Samir Samadov

### FLOWMETERS BASED ON THROTTLE DEVICES IN CRYOGENIC SUPPLY SYSTEMS OF THE NICA ACCELERATOR COMPLEX

**Speaker**  
Mrs Tatyana Zhironkina

### Dependence of the angular coefficients of $J/\psi$ mesons $A_{\{i\}}$ on the transverse momentum in pp collisions at $\sqrt{s_{NN}} = 10$ GeV using the Pythia model

**Speaker**  
Mr Mikhail Bykovskii

### Comparative Analysis of Parametric X-ray Radiation from Carbon Powder with Different Particle Sizes

**Speaker**  
Ekaterina Kidanova

### Activated Carbon Production From Pistachio Shells For Use in Supercapacitor Applications

**Speaker**  
khadija Windo

### Study of Hadron Shower Development in the FHCAL at the BM@N Experiment

**Speaker**  
Ms Valeria Zharova

### MULTIFUNCTIONAL SYSTEM FOR DIAGNOSTICS AND ADJUSTMENT OF AMPLIFIER MODULES RF2-RF3 OF THE NICA COLLIDER

**Speaker**  
Александр Карпук

### Physical Properties of Nano- Scaled silver in Boron Nitride Matrix

**Speaker**  
Mr Awadelkarim Mohamed Ismail Ibrahim

### Development of Offline Run Validation System for the JUNO Experiment

**Speaker**  
Dmitrii Shpotya

### Neutron multiplicity from ordinary muon capture in $^{136}\text{Ba}$ and $^{76}\text{Se}$

**Speaker**  
Дмитрий Илюшкин

### GEANT4 simulation of muon capture on Fe, Al, Cu and $\text{BaCO}_3$ targets in the MONUMENT experiment

**Speaker**  
Artem Bystryakov

**Research of the effects of Gamma irradiation on the electrical properties of GaN transistors and amplifiers for scintillation detectors in high-luminosity experiments**

**Speaker**

Виктория Москаленко

**DETERMINATION OF BORON CONCENTRATION IN GLASS SAMPLES BY PGNAAL METHOD**

**Speaker**

Đức Nguyễn Minh

**CALCULATION OF NEUTRON SELF-SHIELDING FACTOR FOR  $^{186}\text{W}$  TARGET USING THE PHITS CODE**

**Speaker**

Phuong Dung Truong

**Development and characterization of a novel energy calibration method for photon-counting GaAs:Cr-TIMEPIX3 detectors**

**Speaker**

TRUONG HOAI BAO PHI

**Benchmarking Computational Tools for Predicting Absorbance Spectral Shifts in rhodopsin Mutants**

**Speaker**

Lev Vasilenko

**Renormalization group improvement of effective potential for an arbitrary scalar field theory with massive term.**

**Speaker**

Aleksandr Golovin

**Effective production of E. coli ABC-transporter MsbA for in meso crystallization improvement**

**Speaker**

Ivan Bezruchko

**Spectroscopic factor for the mirror pairs of nuclei**

**Speaker**

Jamshidin Talibjanov

**Finite Nuclei Properties from Nuclear Matter Equation of State**

**Speaker**

Ahmed Refaat Mohammed Mohammed

**Kinetics of electrodeposition of indium nanowires with thin gold segments for microelectronics**

**Speaker**

Mr Artem Shashkov

**COMPARISON OF HEAVY METAL ABSORPTION BETWEEN COTTON AND MOSS IN AIR ENVIRONMENT**

**Speaker**

Hieu Nguyen Trung

**Possibilities of obtaining swollen lipid cubic phases using various ionogenic surfactants**

**Speaker**

Aleksei Shishkin

**SrTiO<sub>3</sub>@SiO<sub>2</sub> Composites with Combined Adsorption and Photocatalysis Mechanisms for Efficient Wastewater Treatment**

**Speaker**  
Madina Bissenova

**Mosses as bioindicators of air pollution with potentially toxic elements in the Burabay State National Natural Park, Kazakhstan**

**Speaker**  
Inga Zinikovskaia

**Encapsulation and controlled release of halogenated natural products in nanoformulations for enhanced stability and biological activity**

**Speaker**  
Ritshidze Mudanabula

**Study of the reaction  $^{11}\text{B}(^{10}\text{B}, ^{10}\text{B})^{11}\text{B}$  at an energy of 41.3 MeV**

**Speaker**  
AIKEN NURPEISOV

**Study of the Hyperon reconstruction in the SPD/NICA**

**Speaker**  
Daniil Gubachev

**Exploring magnetic properties of single molecular magnets**

**Speaker**  
Antony Syurakshin

20:30