

Session Program

23–27 Jun 2025

**South Africa - JINR Workshop on Theoretical and
Computational Physics**

Tuesday

BLTP, conference hall
Dubna, Russia

Tuesday 24 June

09:00

Tuesday: (Chairman: B. Mukeru)

Session | Location: BLTP, conference hall

09:00–09:30

Phase diagram of nuclear matter. Collective effects and phase transitions in nuclear systems.

Speaker

Prof. Dmitry Voskresensky

09:30–10:00

METHOD OF OPTIMIZATION OF EMPIRICAL INTERATOMIC POTENTIALS

Speaker

M.Y. Shatalov

10:00–10:30

A NOVEL APPROACH TO PARAMETRIC EVALUATION OF THE BUCKINGHAM INTERATOMIC POTENTIAL

Speaker

M.Y. Shatalov

10:30

11:00

Tuesday: (Chairman: H. Dlamini)

Session | Location: BLTP, conference hall

11:00–11:30

Basis invariants in two-higgs-doublet model: Hilbert series, syzygies, and renormalization-group equation

Speaker

Alexander Bednyakov

11:30–12:00

CFD: A powerful virtual laboratory for fluid dynamics

Speaker

Pedro Mafa

12:00

13:30

Tuesday: (Chairman: I. Sinayskiy)

Session | Location: BLTP, conference hall

13:30–14:00

SELF-ORGANIZATION OF CHARGED PARTICLES IN LATERAL POTENTIALS WITH HIGH SYMMETRY

Speaker

Dr Rashid Nazmitdinov

14:00–14:30

Scissors mode in ^{254}No

Speaker

Мария Мардыбан

14:30–15:00

Acceleration and twisting of neutral atoms by laser fields

Speaker

Vladimir Melezhik

15:00

15:30

Tuesday: (Chairman: P. Mafa)

Session | Location: BLTP, conference hall

15:30–16:00

Quantum Algorithms for the Quantum Simulation of Closed and Open Quantum Systems**Speaker**

Ian Joel David

16:00–16:30

Study of spatial structures in α -cluster nuclei by the Feynman Path Integral method**Speaker**

Prof. Viacheslav Samarin

16:30–17:00

An Introduction to Quantum Computing and Quantum Machine Learning with Quantum Parametric Circuits**Speaker**

Ilya Sinayskiy

17:00