

September 19, Monday
Conference Hall of VBLHEP JINR
Plenary Session

10.00 *Matveev Victor (JINR)*
Opening

Chairman V. Matveev

10.20 *Kekelidze Vladimir (JINR)*
Welcome from IUPAP

10.30 *Smirnov Nikita (Dubna, Russia)*
Welcome from Dubna City administration

Photo, coffee break 10.40-11.15

Chairman V. Kekelidze

11.15 *Malakhov Alexander (JINR)*
A.M. Baldin: from photoproduction to relativistic nuclear physics

11.35 *Burov Valery (JINR)*
Baldin autumn

11.55 *Kovalenko Alexander (JINR)*
The 100-TeV Nuclotron

12.15 *Gerasimov Sergo (JINR)*
A.M. Baldin and electro-magnetism of hadrons

12.30 *Baldin Anton (JINR)*
On some methodological and philosophical ideas of Academician A. M. Baldin

12.50 *Zarubin Pavel (JINR)*
A.M. Baldin and relativistic nuclear physics with nuclear track emulsion

13.10 *Pondrom Lee (Madison, USA)*
Tales of the Soviet Atomic Project

13.30 *Konopleva Nelly (Moscow, Russia)*
Physics architecture

Break 13.50-15.00

Dubna, Russia
Joint Institute for Nuclear Research

**September 19, Monday
Conference Hall of VBLHEP JINR
Plenary Session**

Chairman A. Malakhov

15.00 ***Gorbunov Ilya (JINR)***

CMS Overview

15.40 ***Przybycien Mariusz (Krakow, Poland)***

Recent heavy ion results from ATLAS experiment

16.20 ***Kovalenko Alexander (JINR)***

NICA operation in polarized proton and deuteron mode: Status of preparation

Coffee break 17.00-17.30

Chairman V. Burov

17.30 ***Tomasi-Gustafsson Egle (Gif-sur-Yvette, France)***

Highlights of the hadron electromagnetic structure

18.00 ***Kuvshinov Viacheslav (Minsk, Belarus)***

Color states evolution in vacuum at large distances

18.30 **End of the Session**

Welcome Party 19.00

September 20, Tuesday
Conference Hall of VBLHEP JINR
Plenary Session

Chairman R. Kukla

- 09.00 *Blaschke David (Wroclaw, Poland)*
Recent Theory Developments for NICA
- 09.40 *Nedorezov Vladimir (Moscow, Russia)*
Emission of d,T,A particles from ^{12}C nuclei excited by intermediate energy photons
- 10.10 *Ritman James (Juelich, Germany)*
Initial measurements with antiprotons at the upcoming FAIR/PANDA facility
- 10.40 *Kulagin Sergey (Moscow, Russia)*
Nuclear parton distributions

Coffee break 11.10-11.30

Chairman V. Nedorezov

- 11.30 *Andrianov Aleksandr (Saint Petersburg, Russia)*
Chiral imbalance in QCD
- 12.00 *Teryaev Oleg (JINR)*
Hyperons polarization in heavy-ion collisions
- 12.30 *Kukla Romain (Gif-sur-Yvette, France)*
Probing composite models at the LHC with exotic quarks production
- 13.00 *Zakharov Alexander (Moscow, Russia)*
Graviton mass bounds from an analysis of bright star trajectories at the Galactic Center

Break 13.40-15.00

September 20, Tuesday
Conference Hall of VBLHEP JINR
Parallel Session I

Chairman S. Bondarenko

Relativistic heavy ion collisions

- 15.00 *Kolesnikov Vadim (JINR)*
Recent progress in the experimental study of light nuclei production in Pb+Pb collisions from the NA49 experiment
- 15.30 *Kulikov Viacheslav (Moscow, Russia)*
Test of nuclear fragmentation models with carbon fragmentation at 0.3 GeV/n
- 15.50 *Milosevic Jovan (Belgrade, Serbia)*
Initial state fluctuations in heavy-ion collisions from SPS to LHC
- 16.20 *Kireyeu Viktor (JINR)*
Study of Clusters and Hypernuclei production within PHQMD+FRIGA model
- 16.40 *Litvinenko Anatoly (JINR)*
Control of luminosity at the interaction points in the collider NICA

Coffee break 17.00-17.20

Chairman A. Parvan

- 17.20 *Khvorostukhin Andrey (JINR)*
Hadron rapidity distributions within a hybrid model HydHSD
- 17.50 *Kukulin Vladimir (Moscow, Russia)*
Digamma diagnostics for the mixed phase generation at NICA
- 18.20 **End of the Session**

Concert 19.30

September 20, Tuesday
Auditorium 347
Parallel Session II

Chairman M. Tokarev

Dynamics of multiparticle production

- 15.00 *Golovanov Georgy (JINR)*
Physics of double parton interaction
- 15.30 *Kim Victor (Gatchina, Russia)*
Asymptotic BFKL-effects in large rapidity jet production
- 16.00 *Makhaldiani Nugzar (JINR)*
Renormdynamics and production of fractals, fluctons, solitons, strings, unparticles ...
- 16.30 *Somsiikov Vyacheslav (Almaty, Kazakhstan)*
Extension of the Schrödinger equation for quantum systems

Coffee break 17.00-17.20

Chairman N. Makhaldiani

- 17.20 *Panferov Anatoliy (Saratov, Russia)*
The field induced phase transition in the few photon region
- 17.40 *Kosmachev Oleg (JINR)*
Some notes about the problems of relativistic nuclear physics
- 18.00 **End of the Session**

Concert 19.30

September 20, Tuesday
NICA Hall
Parallel Session III

Chairman V. Voronko

Applied use of relativistic beams

- 15.00 *Baldin Anton (JINR)*
Optimization of Accelerated Charged Particle Beam for ADS Energy Production
- 15.20 *Chudoba Petr (Rez near Prague, Czech Republic)*
Measurements and usage of cross-sections of various (n,xn) threshold reactions
- 15.40 *Suchopar Martin (Rez near Prague, Czech Republic)*
Monte Carlo simulations of reaction rates in Quinta uranium target
- 16.00 *Kilim Stanislaw (Otwock, Poland)*
Comparison of neutron induced fission and capture in Np-237 and Pu-239 irradiated in 660 MeV proton beam in QUINTA assembly
- 16.20 *Paraipan Mihaela (JINR)*
Study of neutron spectra in extended uranium target. new experimental data
- 16.40 *Szuta Marcin (Otwock-Swierk, Poland)*
Comparison of two fast neutron measurement methods based on Np-237 fission to capture ratio measurement (spectral index) and a reverse dark current measurement of planar silicon detector

Coffee break 17.00-17.20

Chairman S. Tyutyunnikov

- 17.20 *Polanski Aleksander (Otwock, Poland)*
Mathematical modeling of neutron generation in natural uranium target assembly QUINTA irradiated by deuterons with energies from 1 to 8 GeV
- 17.50 *Sotnikov Vladimir (Kharkov, Ukraine)*
Study of $^{238}\text{U}(n,g)$ and $\text{natU}(n,f)$ reaction rates in spallation neutron fields produced by protons, deuterons and ^{12}C ions on the massive uranium target QUINTA
- 18.10 *Strugalska-Gola Elzbieta (Otwock-Swierk, Poland)*
Average fast neutron flux in three energy ranges in the Quinta assembly irradiated by two types of beams
- 18.30 **End of the Session**

Concert 19.30

Dubna, Russia
Joint Institute for Nuclear Research

September 21, Wednesday
Conference Hall of VBLHEP JINR
Plenary Session

Chairman L. Tomio

- 09.00 *Kupsc Andrzej (Uppsala, Sweden)*
Recent results from BESIII experiment
- 09.40 *Dbeyssi Alaa (Mainz, Germany)*
Baryon electromagnetic form factors at BESIII
- 10.10 *Marchand Dominique (Orsay, France)*
The future Platform for Research and Applications with Electrons (PRAE) in Orsay, France
- 10.30 *Baessler Stefan (Charlottesville, USA)*
Fundamental physics at the spallation neutron source - the Nab experiment

Coffee break 11.00-11.30

Chairman S. Kulagin

- 11.30 *Burov Valery (JINR)*
Relativistic properties of the deuteron in Bethe-Salpeter approach
- 12.10 *Tomio Lauro (Sao Paulo, Brazil)*
Minkowski space approach for the Bethe-Salpeter equation
- 12.40 *Cleymans Jean (Rondebosch, South Africa)*
Thermal model for small systems
- 13.10 *Kataev Andrei (Moscow, Russia)*
New renormalization-group representation of the perturbative expressions for the Bjorken polarized sum rule and the e^+e^- annihilation Adler function through the PT conformal symmetry breaking terms: the results and possible phenomenological outputs

Break 13.40-15.00

September 21, Wednesday
Conference Hall of VBLHEP JINR
Parallel Session I

Chairman A. Andrianov

Quantum chromodynamics at large distances

- 15.00 *Bogolubsky Igor (JINR)*
Zero-momentum correlator in SU(2) Landau gauge gluodynamics under various boundary conditions
- 15.20 *Bornyakov Vitaly (Protvino, Russia)*
Study of lattice QCD at finite chemical potential using canonical ensemble approach
- 15.50 *Dzhunushaliev Vladimir (Almaty, Kazakhstan)*
Scalar model of SU(N) glueball a la Heisenberg
- 16.20 *Khellat Mohammadreza (Shiraz, Iran)*
Deviation pattern approach for optimizing perturbative terms of QCD renormalization group invariant observables
- 16.40 *Voronin Vladimir (JINR)*
Pion transition form factor in the Domain model of QCD

Coffee break 17.00-17.30

Chairman V. Kim

- 17.30 *Kozhevnikova Marina (JINR)*
Search for short strings in e⁺e⁻ -annihilation
- 17.50 *Polezhaev Roman (Samara, Russia)*
Electroweak properties of rho-meson in the instant form of relativistic quantum mechanics
- 18.10 *Petrov Vladimir (Protvino, Russia)*
Sizes and Distances in High Energy Physics
- 18.40 *Koryukin Valery (Yoshkar-Ola, Russia)*
On the role of "ghosts" in the physical interpretation of the universe matter evolution
- 19.00 **End of the Session**

September 21, Wednesday
Auditorium 347
Parallel Session II

Chairman V. Komarov

Hadron spectroscopy, multiquarks

- 15.00 *Dong Yubing (Beijing, China)*
Study of heavy exotic baryon resonance
- 15.30 *Kiselev Yury (Moscow, Russia)*
Modification of the strange meson properties in nuclear matter
- 16.00 *Obukhovskiy Igor (Moscow, Russia)*
Electroproduction of lightest nucleon resonances up to $Q^2=12 \text{ GeV}^2$ in quark models at light front
- 16.30 *Arakelyan Susanna (JINR)*
Study of np - interactions in VBLHE JINR - history, current state, future

Coffee break 17.00-17.30

Chairman I. Obukhovskiy

- 17.30 *Ganbold Gurjav (JINR)*
The Fermi Coupling, the Mass Spectrum and Decay Constants of Mesons within the Covariant Confined Quark Model
- 17.50 *Belyaev Alexander (JINR)*
Kinematical fit and Channels Separation at the np-experiments at JINR
- 18.10 *Abraamyan Khachik (JINR)*
Photon pairs and π^0 pairs production in proton-nucleus and deuteron-nucleus interactions. Results of experiments on internal beams of the Nuclotron
- 18.40 *Komarov Vladimir (JINR)*
On a possibility to observe the transition of a baryon-pair state to a six-quark confinement state
- 19.00 *Mayburov Sergey (Moscow, Russia)*
Search of decay parameter oscillations in Fe-55 weak decay
- 19.30 **End of the Session**

September 21, Wednesday
NICA Hall
Parallel Session III

Chairman M. Paraipan

Applied use of relativistic beams

- 15.00 *Yudin Ivan (JINR)*
Estimation of tolerances on synchrotron elements parameters for biomedical research
- 15.40 *Zhuk Ihar (Minsk, Belarus)*
The experiments at the QUINTA subcritical assembly. neutrons leaking investigations
- 16.20 *Tichy Pavel (JINR)*
Irradiation of QUINTA Assembly by 660 MeV Proton Beam and 4 GeV and 8 GeV Deuteron Beam

Coffee break 17.00-17.30

Chairman S. Shimanskiy

Cumulative and subthreshold processes

- 17.30 *Baldina Elina (Dubna, Russia)*
Relativistically invariant self-similarity approach for description of collective phenomena
- 17.50 *Baatar Tseepeldorj (Ulaanbaatar, Mongolia)*
Hadron production in π^- -C-interactions at 40 GeV/c and QCD phase transition
- 18.10 *Bogolyubsky Mikhail (Protvino, Russia)*
Data Processing in the Modified Setup Fods
- 18.30 *Elumakhov Dmitry (Protvino, Russia)*
Relative yield of secondary particles and nuclear fragments in forward direction in 20 A GeV/c carbon beam interactions with nuclear targets
- 18.50 *Kozhin Mikhail (JINR)*
 π^0 Production in dC- and dCu-interactions at a momentum of 4.5 GeV/c per nucleon
- 19.10 *Fadeev Nikolay (JINR)*
Lorentz formulas in projective transformations
- 19.30 **End of the Session**

September 22, Thursday
Conference Hall of VBLHEP JINR
Plenary Session

Chairman J. Ritman

- 09.00 *Federic Pavol (Prague, Czech Republic)*
Heavy Flavor Production at the STAR experiment
- 09.30 *Tokarev Mikhail (JINR)*
Recent STAR heavy-ion results
- 10.00 *Taranenko Arkadiy (Moscow, Russia)*
QGP in small collision systems at RHIC and LHC?
- 10.40 *Federicova Pavla (Prague, Czech Republic)*
J/psi production at the STAR experiment

Coffee break 11.00-11.30

Chairman A. Taranenko

- 11.30 *Olsen Stephen (Daejeon, South Korea)*
Probing the X(3872) meson structure with near-threshold pp and pA collisions at NICA
- 12.10 *Golovach Evgeny (Moscow, Russia)*
New states of hadronic matter from the data on exclusive meson production with the CLAS/CLAS12
- 12.30 *Gerasimov Sergo (JINR)*
Nuclear photo-absorption sum rules and search for exotics
- 13.00 *Lukyanov Valery (JINR)*
The comparative analysis of elastic pion-nucleus scattering within the microscopic folding and local Kisslinger-Ericson optical potential
- 13.20 *Slowinski Bronislaw (Warsaw, Poland)*
Quasi-two-body pion-nucleus collisions at GeV energy region as an intranuclear space probe

Break 13.40-15.00

September 22, Thursday
Conference Hall of VBLHEP JINR
Parallel Session I

Chairman O. Teryaev

Polarization phenomena, spin physics

- 15.00 *Uzikov Yury (JINR)*
Search for T-invariance violation in pd-scattering
- 15.30 *Chavleishvili Mikhail (Dubna, Russia)*
General spin particle formalism based on symmetry properties and model-independent results
- 16.00 *Silenko Alexander (JINR)*
Phenomenological description of spin effects in electromagnetic and strong interactions of quarks
- 16.40 *Suvarieva Dilyana (JINR)*
Lambda Polarization feasibility study at BM@N

Coffee break 17.00-17.30

Chairman B. Slowinski

Studies of exotic nuclei in relativistic beams, Accelerator facilities: status and perspectives

- 17.30 *Artemenkov Denis (JINR)*
Study of light neutron deficient nuclei cluster structure with nuclear track emulsions
- 17.50 *Sakulin Dmitriy (JINR)*
Slow control system for the experimental setup SCAN-3
- 18.10 *Dryablov Dmitry (JINR)*
Creation of a precision magnetic spectrometer SCAN-3
- 18.30 *Kurilkin Pavel (JINR)*
Superconducting dipole magnet for the CBM experiment at FAIR
- 18.50 *Zherebchevsky Vladimir (Saint-Petersburg, Russia)*
Characterization of monolithic active pixel sensors for the new ALICE inner tracking system performed at SPbSU
- 19.10 **End of the Session**

September 22, Thursday
Auditorium 347
Parallel Session II

Chairman G. Lykasov

Structure functions of hadrons and nuclei

- 15.00 *Zygunov Vladimir (Gomel, Belarus)*
NLO electroweak radiative corrections for four-fermionic process at Belle II
- 15.30 *Arbuzov Andrej (JINR)*
On radiative corrections to elastic electron-proton scattering
- 16.00 *Shebeko Aleksandr (Kharkov, Ukraine)*
Form factors in the clothed-particle representation
- 16.30 *Yurev Sergey (JINR)*
Relativistic 3D1 partial-wave contribution to the three-nucleon system

Coffee break 17.00-17.30

Chairman A. Arbuzov

- 17.30 *Lykasov Gennady (JINR)*
PDF of heavy quarks and gluons and hard processes at LHC
- 18.10 *Shushkevich Stanislav (Moscow, Russia)*
Proton Structure Functions and Parton densities at HERA
- 18.40 *Smolyansky Stanislav (Saratov, Russia)*
Residual currents generated from vacuum by an electric field pulse in 2+1 dimensional QED models
- 19.10 *Alvarez-Castillo David (JINR)*
Supporting the existence of the QCD critical point by compact star observations
- 19.30 **End of the Session**

September 22, Thursday
NICA Hall
Parallel Session III

Chairman A. Litvinenko

Project NICA/MPD at JINR

- 15.00 *Kurepin Alexey (Moscow, Russia)*
Nuclear dissociation study by MPD/NICA
- 15.30 *Sharov Vasily (JINR)*
Elastic events selection in interactions of the colliding pp and dd beams of the NICA collider
- 16.00 *Galoyan Aida (JINR)*
Toward centrality determination at NICA/MPD
- 16.20 *Baranov Dmitriy (JINR), Rogachevsky Oleg (JINR)*
A data simulation model of the BM@N GEM detector
- 16.40 *Dobrin Ion (Bucharest, Romania)*
Numerical modeling and analysis of the magnetic field generated by the solenoid for the spin program at NICA

Coffee break 17.00-17.30

Chairman A. Litvinenko

- 17.30 *Kirin Dmitry (Moscow, Russia)*
Position sensitive neutron detector; Non-femtoscopic correlations study with EPOS model
- 17.50 *Fedorishin Jan (JINR)*
Drift Chambers in BM@N Experiment
- 18.20 *Mudrokh Alexander (JINR)*
Recent developments in MPD tracking and detector performance in hadron identification
- 18.40 **End of the Session**

September 23, Friday
Conference Hall of VBLHEP JINR
Plenary Session

Chairman J. Cleymans

- 09.00 *Ladygin Vladimir (JINR)*
Investigations of compressed baryonic matter at the GSI accelerator complex
- 09.40 *Schicker Rainer (Heidelberg, Germany)*
Overview of ALICE results in pp, pA and AA collisions
- 10.20 *Kiselev Sergey (Moscow, Russia)*
Hadronic resonance production with ALICE at the LHC
- 10.40 *Wang Ying (Orsay, France)*
Analyzing powers, efficiency and figure of merit study for np scattering

Coffee break 11.10-11.30

Chairman V. Kuvshinov

- 11.30 *Savin Igor (JINR)*
Azimuthal asymmetries of charged hadrons produced in high-energy muon scattering of longitudinally polarized deuterons
- 12.00 *Machner Harmut (Duisburg, Germany)*
Eta bound states: experimental and theoretical progress
- 12.40 *Surovtsev Yury (JINR)*
Effect of the eta-eta channel and interference phenomena in the two-pion transitions of charmonia and bottomonia
- 13.10 *Slowinski Bronislaw (Warsaw, Poland)*
Scaling and correlations in electromagnetic cascades produced by gamma quanta in dense amorphous media

Break 13.30-15.00

September 23, Friday
Conference Hall of VBLHEP JINR
Parallel Session I

Chairman V. Lukyanov

Polarization phenomena, spin physics

- 15.00 *Gevorkyan Sergey (JINR)*
Vector mesons polarization vs color transparency
- 15.30 *Manaenkov Sergey (Gatchina, Russia)*
Ratios of Helicity Amplitudes for Exclusive ρ^0 Electroproduction on Transversely Polarized Proton
- 15.50 *Goloskokov Sergey (JINR)*
Amplitudes ratios in ρ^0 lepton productions and GPDs
- 16.10 *Ladygina Nadezhda (JINR)*
Delta excitation in dp-elastic scattering at the intermediate energies
- 16.30 *Piskunov Nikolay (JINR)*
np Charge Exchange Polarimetry in GeV Region

Coffee break 17.00-17.30

Chairman N. Piskunov

- 17.30 *Pestov Ivanhoe (JINR)*
Foundations of a Unified Physics
- 18.00 *Shindin Roman (JINR)*
Four NN-scattering amplitudes
- 18.30 *Kostenko Boris (JINR)*
On possible contribution of partons' orbital momentum to the proton spin
- 18.50 *Lyuboshitz Valery (JINR)*
Spin correlations of the final leptons in the two-photon processes $\gamma\gamma \rightarrow e^+e^-$, $\mu^+\mu^-$, $\tau^+\tau^-$
- 19.10 **End of the Session**

Banquet 20.00

Dubna, Russia
Joint Institute for Nuclear Research

September 23, Friday
Auditorium 347
Parallel Session II

Chairman V. Toneev

Dynamics of multiparticle production

- 15.00 *Kokoulina Elena (JINR)*
Gluon dominance model
- 15.40 *Feofilov Grigory (Saint-Petersburg, Russia)*
Initial stages and collective effects in hadron collisions at the LHC
- 16.00 *Jerusalimov Alexander (JINR)*
Study of 3pi- and 4pi-meson production in np interactions at intermediate energies
- 16.20 *Dedovich Tatiana (JINR)*
Analysis of fractal events with background
- 16.40 *Loctionov Albert (Almaty, Kazakhstan)*
Search for the signs of intrinsic alpha-clustering in multiparticle processes for collisions of light nuclei

Coffee break 17.00-17.30

Chairman E. Kokoulina

- 17.30 *Levchenko Boris (Moscow, Russia)*
QCD and Hadronic Final State measurements at HERA
- 18.00 *Machavariani Alexander (JINR)*
Model of the inclusive rho meson production in the proton-proton collisions

Structure functions of hadrons and nuclei

- 18.30 *Kotikov Anatoly (JINR)*
Critical behaviour of QED3 with N fermions
- 19.00 **End of the Session**

Banquet 20.00

September 23, Friday
NICA Hall
Parallel Session III

Chairman V. Vechernin

Relativistic heavy ion collisions

15.00 *Musulmanbekov Genis (JINR)*

The role of initial state in heavy ion collisions. "Horn"-effect.

15.40 *Parvan Alexandru (JINR)*

Ultrarelativistic transverse momentum distribution of the exact Tsallis statistics

16.20 *Topilskaya Nataliya (Moscow, Russia)*

Heavy ion collisions in a fixed target mode at the LHC beams

Coffee break 17.00-17.30

Chairman Yu. Uzikov

17.30 *Vechernin Vladimir (Saint-Petersburg, Russia)*

Long-range rapidity correlations between mean transverse momenta

18.00 *Yukalov Vyacheslav (JINR)*

Critical temperature in weakly interacting multicomponent field theory

18.20 *Terekhin Arkadiy (JINR)*

The differential cross section for dp-elastic scattering at 500-900 MeV/c

18.40 *Nigmatkulov Grigory (Moscow, Russia)*

Femtoscopic measurements of kaons in the SELEX experiment

19.00 **End of the Session**

Banquet 20.00

September 24, Saturday
Conference Hall of VBLHEP JINR
Plenary Session

Chairman S. Olsen

09.00 *Barth Winfried (Darmstadt, Germany)*
A superconducting CW-LINAC for heavy ion acceleration at GSI

09.40 *Kekelidze Vladimir (JINR)*
NICA Project: status and perspectives

10.20 *Janek Marian (Zilina, Slovakia)*
Investigation of reactions using polarized and unpolarized deuteron beam at Nuclotron:
Current state and perspectives

Coffee break 11.00-11.30

Chairman E. Tomasi-Gustafsson

11.30 *Patsyuk Maria (Cambridge, USA)*
GlueX overview: status and some future plans

12.10 *Shimanskiy Stepan (JINR)*
45-year-long way of the cumulative research

12.50 *Zarubin Pavel (JINR)*
Unstable nuclei in dissociation of light stable and radioactive nuclei

13.20 *Malakhov Alexander (JINR)*
Development of the Baldin approach for the relativistic nuclear interactions

13.50 *Burov Valery (JINR), Malakhov Alexander (JINR)*
Closing

Pososhok! 14.00