

October 4, Monday
Conference Hall of BLTP JINR
Plenary Session

Chairman V. Voronov

- 10.00 **Malakhov A., Burov V.** (JINR)
Opening
10.20 **Itkis M.** (JINR)

Quantum Chromodynamics at the Large Distances

- 10.40 **Prokhorov L.** (Russia)
On Nature of Symmetries

Coffee break 11.00 – 11.30

Chairman V. Burov

- 11.30 **Musakhanov M.** (Uzbekistan)
Heavy-light Quark Systems in the Instanton Vacuum
12.00 **Voutier E.** (France)
Polarized Electrons and Positrons for Hadron Imaging
12.30 **Konopleva N.** (Russia)
Gauge Fields and Gravity

Break 13.00 – 14.00

Progress in experimental studies at the high energy accelerators

Chairman A. Malakhov

- 14.00 **Punjabi V.** (USA)
New Measurements of G_{Ep}/G_{Mp} to high Q^2 at Jefferson Lab
14.30 **Perdrisat C.F.** (USA)
Measurements of G_{Ep}/G_{Mp} to high Q^2 with 11 GeV Electrons at Jefferson Lab
15.00 **Boucher J.** (France)
Time-like Electromagnetic Proton Form Factors
15.30 **Wojtsekhowski B.** (USA)
Review of Neutron Form Factors

Break 16.00 – 16.10

Dubna, Russia
Joint Institute for Nuclear Research

October 4, Monday
Conference Hall of BLTP JINR
Plenary Session

***Relativistic Heavy Ion Collisions.
Structure Functions of Hadrons and Nuclei****

Chairman V. Lukyanov

- 16.10 ***Malakhov A.*** (JINR)
Asymptotics in Relativistic Nuclear Physics
- 16.30 ***Baldin A.*** (JINR)
Collective Effects in Relativistic Nuclear Physics:
Historic Survey and Prospects
- 17.00 ***Karmanov V.*** (Russia)
Solving Bethe-Salpeter Equation in Minkowski Space
- 17.25 ***Dorkin S.*** (JINR)
Heavy mesons in Bethe-Salpeter Approach
- 17.45 ***Rogochaya E.*** (JINR)
Bethe-Salpeter Approach with the Covariant Separable
Kernel for the Electrodisintegration of the Deuteron
- 18.05 ***Bondarenko S.*** (JINR)
Relativistic Properties of the Deuteron in the Bethe-Salpeter Approach
- 18.25 ***Molochkov A.*** (Russia)
Relativistic Structure of Nuclei
- 18.50 End of the session
- 19.00 ***Welcome Party (BLTP Cafeteria)***

****Session in Honor of the 61th Birthday of Professor V. Burov***

Dubna, Russia

Joint Institute for Nuclear Research

October 5, Tuesday
 Conference Hall of BLTP JINR
 Parallel Session

Relativistic Heavy Ion Collisions

Chairman C. Perdrisat

- 9.00 **Vechernin V.** (Russia)
 Long-range Rapidity Correlations in the Model with Independent Emitters
- 9.20 **Vokal S.** (Slovakia)
 Pseudorapidity Spectra of Relativistic Particles Emitted
 in the Au and Pb Induced Reactions at High Energies
- 9.40 **Tchuvil'sky Yu.** (Russia)
 Pauli Repulsion Energy and the Properties of Door-Way States
 in Relativistic Central Heavy Ion Collisions

Coffee break 10.40 – 11.10

Hadron spectroscopy

Chairman S. Gerasimov

- 11.10 **Aslanyan P.** (JINR)
 J-PARC P02 project: "The Study of Exotic Multiquark States
 in Systems with Λ -Hyperons, K^0_s -Mesons and γ -Quanta"
- 11.50 **Khrykin A.** (JINR)
 The Case for the NN-decoupled Dibaryon $d^*_1(1956)$
- 12.10 **Dineykhon M.** (JINR)
 Determination of the Mass Spectrum of (cb) Mesons
 with Relativistic Corrections
- 12.30 **Uzikov Yu.** (JINR)
 Formation of the ${}_1S_0$ Diproton in the Reaction $pp \rightarrow pp_s \pi^0$
- 12.50 **Jerusalimov A.** (JINR)
 Study of the Reaction $np \rightarrow n\pi^+\pi^-$ at Intermediate Energies

Break 13.10 – 15.00

October 5, Tuesday
 Blokhintsev Auditorium of BLTP JINR
 Parallel Session

Multiparticle dynamics

Chairman M. Tokarev

- 9.00 **Abramovsky V.A.** (Russia)
 The Different in Inclusive Spectra of Proton-Proton
 and Proton-antiproton Collisions at $\sqrt{S} = 900$ GeV
- 9.20 **Alakhverdyan A.** (JINR)
 The Kinematical Fit for Neutral Strange Particle Reconstruction
- 9.40 **Zborovsky Im.** (Czech Republic)
 Saturation of Hadron Production in Proton-(anti)Proton Collisions at Low P_T
- 10.20 **Dedovich T.** (JINR)
 P-adic Coverage Method in Fractal Analysis of Showers

Coffee break 10.40 – 11.10

Chairman V. Glagolev

- 11.10 **Slowinski B.** (Poland)
 Impact Parameter Estimation in Hadron-Nucleus Interactions
 at Intermediate Energies
- 11.30 **Eliseev S.** (JINR)
 Finite Formation Time of Hadrons and QGP Production: to be or not to be?
- 11.50 **D'yachenko A.** (Russia)
 On the Hardening of the Spectrum of High-Energy Particles Formed
 in Heavy Ion Collisions Considered within the Framework
 of the Hydrodynamic Approach
- 12.10 **Tokarev M.** (JINR)
 Search for Signature of Phase Transition and Critical Point
 in Heavy Ion Collisions
- 12.30 **Feofilov G.** (Russia)
 Long-range (Forward-backward) P_t and Multiplicity Correlations
 in ALICE in pp Collisions at 900 GeV
- 12.50 **Filinov V.** (Russia)
 Stochastic Simulations of Thermodynamic and Kinetic Properties
 of Strongly Coupled Quark-Gluon Plasmas in Feynman and Wigner
 Representation of Quantum Statistical Mechanics
- 13.10 **Knyazev N.** (Russia)
 Equation of State of Multi-Component Hadronic Gas with Van der Waals
 Correction and Phase Transition to Quark-Gluon Plasma

Break 13.30 – 15.00

October 5, Tuesday
Conference Hall of BLTP JINR
Parallel Session

Polarization phenomena and spin physics

Chairman V. Ladygin

- 15.00 ***Piyadin S.*** (JINR)
First Results on the Study of $dp \rightarrow ppn$ Reaction
at Internal Target Station at Nuclotron
- 15.20 ***Ladygina N.*** (JINR)
Study of the dp -Elastic Scattering at Relativistic Energies
- 15.40 ***Salmira E.*** (JINR)
Longitudinal Polarization of the Lambda and Antilambda Hyperons
in DIS at COMPASS (2003-2004)
- 16.00 ***Krasnov V.*** (JINR)
Polarization Effects in Charge Pion Production
at the NUCLOTRON Internal Target
- 16.20 ***Lomov V.*** (Russia)
Generalized Dynamics of Rarita-Schwinger Field
- 16.40 ***Silenko A.*** (Belarus)
Spin-tensor Effects at Channeling and a Potential
for Measuring Quadrupole Moments of Unstable Nuclei

Coffee break 17.00 – 17.30

Hadron spectroscopy

Chairman V. Karmanov

- 17.30 ***Kaloshin A.*** (Russia)
Mixing of Fermion Fields of Opposite Parities and Baryon Resonances
- 17.50 ***Barabanov M.*** (JINR)
Application of High Quality Antiproton Beam with Momentum Ranging
from 1 GeV/c to 15 GeV/c to Study Charmonium and Exotics
- 18.10 ***Radzhabov A.*** (Russia)
Light-by-light Contribution of Scalar Mesons to $(g-2)$ of the Muon
- 18.30 ***Kuraev E.*** (JINR)
Three jet production in peripheral $\bar{p}(p) - p$ collisions
- 18.50 ***Egorov O.*** (Russia)
Diffraction Dissociation (DD) Phenomena
after Neutrino Nuclei Interactions and Cumulative Processes
- 19.10 ***Troyan A.*** (JINR)
Search for and Study of Low-Mass Scalar Mesons
in the Reaction $np \rightarrow n\pi^+\pi^-$ at the Impulse of Neutron Beam 3.83 GeV/c
- 19.30 End of the session

Dubna, Russia
Joint Institute for Nuclear Research

October 5, Tuesday
 Blokhintsev Auditorium of BLTP JINR
 Parallel Session

Applied use of relativistic beams

Chairman A. Baldin

- 15.00 **Chilap V.** (Russia)
 Basic Principles of a New Scheme of Electronuclear Method
 of Energy Production and Transmutation of Long-Lived Radioactive Wastes
 of Nuclear Power Plants Based on Nuclear Relativistic Technologies
- 15.20 **Bielewicz M.** (Poland)
 Measurement Relevant to High Energy Neutron Spectrum by Application
 Yttrium Detectors in the U/Pb-Assembly Using 4 GeV Deuteron Beam
 from JINR Nuclotron (Dubna)
- 15.40 **Indrigh A.** (JINR)
 Reaction Rates in ^{237}Np Exposed to Spallation Neutrons
 in Pb Target and U-blanket System by Relativistic Deuterons of 4 GeV
- 16.00 **Kilim S.** (Poland)
 A Method of Spallation Neutron Energy Spectrum Reconstruction
 with Yttrium Sample Activation
- 16.20 **Slowinski B.** (Poland)
 Profiles and Fluctuations of Electromagnetic Cascades Produced
 by 100-3500 MeV Gamma Quanta in Heavy Amorphous Media

Coffee break 17.00 – 17.30

Chairman S. Tiutiunnikov

- 17.30 **Wagner V.** (Czech Republic)
 Measurement of Neutron Field Produced Around Pb/U Setup Irradiated
 by Relativistic Light Ions
- 17.50 **Pronskikh V.** (JINR)
 (n, xn) and (n, γ) Reaction Rates in Iodine-129 Exposed
 to Spallation Neutrons of GAMMA-3 Setup
- 18.10 **Szuta M.** (Poland)
 Once Through Thorium Based Fuel Cycle Analysis
 of Acceleration Driven System for Energy Production
 and Radioactive Waste Transmutation-Impact on Economy Improvement
- 18.30 **Safronova A.** (Belarus)
 Experimental Study of Neutron-Physical Characteristics
 of the U/Pb Assembly of Electronuclear Setup “Energy+Transmutation”
 under 1.6 and 4 GeV Deuterons Beam Irradiation
- 18.50 **Patapenka A.** (Belarus)
 Method and Results of the $^{nat}\text{Pb}(d, f)$, $^{209}\text{Bi}(d, f)$ and $^{209}\text{Bi}(d, xnyp)$
 Reaction Cross Sections Measurements at 1.6 and 4 GeV Deuterons Beam
- 19.10 End of the session

October 6, Wednesday
 Conference Hall of BLTP JINR
 Plenary Session

Hadron spectroscopy

Chairman O. Teryaev

- 9.00 **Achasov N.** (Russia)
 Life of Light Scalar Mesons: past, present, future
- 9.30 **Gerasimov S.** (JINR)
 Why Polarized Photonuclear Absorption Sum Rules Could be Interesting?
- 9.50 **Efimov G.** (JINR)
 Bound states and Quantum Field Theory
- 10.20 **Surovtsev Yu.** (JINR)
 The f_2^- and ρ_3^- -Mesons from Analysis of Multi-Channel Pion-Pion Scattering
- 10.40 **Uzikov Yu.** (JINR)
 Two Pion Production in the Reaction $pd \rightarrow pd\pi^+\pi^-$

Coffee break 11.00 – 11.30

Polarization phenomena and spin physics

Chairman A. Kovalenko

- 11.30 **Tomasi-Gustafsson E.** (France)
 Opportunities for QCD Studies with Exclusive Processes Induced by Antiprotons
- 11.50 **Teryaev O.** (JINR)
 New Manifestations of Axial Anomalies
- 12.30 **Bystritskiy Yu.** (JINR)
 Bremsstrahlung and Pair Production Processes at Low Energies: Multidifferential Section and Polarization Phenomena
- 12.50 **Ladygin V.** (JINR)
 Recent Results with Polarized Deuterons and Polarimetry at NUCLOTRON-NICA
- 13.10 **Reznikov S.** (JINR)
 Deuteron Beam Polarimetry at NUCLOTRON-NICA
- 13.30 **Sharov V.** (JINR)
 Measurement of Spin-dependent np Observables Using High Intensity Polarized Deuteron Beams at the Nuclotron-M

Break 13.50 – 15.00

October 6, Wednesday
Conference Hall of BLTP JINR
Plenary Session

Polarization phenomena and spin physics

Chairman N. Piskunov

- 15.00 **Annand J.** (UK)
Recoil Neutron Polarimetry at High Momenta
- 15.20 **Kunne F.** (France)
Overview of Experimental Results on Nucleon Spin Structure from COMPASS
- 16.00 **Glagolev V.** (JINR)
Differential Cross Section and Vector Analyzing Power
in d-p Elastic Scattering at 2.0 GeV
- 16.20 **Gurchin Yu.** (JINR)
Study of dp-elastic scattering with internal and extracted Nuclotron beams

Coffee break 16.40 – 17.10

Structure functions of hadrons and nuclei

Chairman P. Zaribin

- 17.10 **Nedorezov V.** (Russia)
New GRAAL Data on Nucleon Photoabsorption
in the Nucleon Resonance Energy Region
- 17.40 **Tomio L.** (Brazil)
The Nucleon Structure Function in a Statistical Quark Model
- 18.10 **Kotikov A.** (JINR)
Small-x Behavior of the Structure Function F_2^c
- 18.40 **Gamzova E.** (Russia)
The Electromagnetic Structure of Composite Systems
at the Large Momentum Transfer
- 19.00 **Kudinov M.** (Russia)
The Relativistic Electromagnetic Structure of the Nucleon
- 19.20 End of the session

October 7, Thursday
Conference Hall of BLTP JINR
Parallel Session

Relativistic heavy ion collisions

Chairman G. Feofilov

- 9.00 **Fadeev N.** (JINR)
Asymptotic Freedom in Mechanics of Hadron Collisions at High Energies
- 9.20 **Krutenkova A.** (Russia)
Cumulative to Evaporation Ratio in ^{12}C Fragmentation
- 9.40 **Vasiliev T.** (JINR)
High Pt Pion Spectra and Dihadron Correlations at CBM@SIS100
- 10.00 **Krylov A.** (Russia)
Violation of Unitarity of the tree Approximation
to the Glauber AA-Scattering Amplitude
- 10.20 **Mikhailov K.** (Russia)
Femtосcopy Application of the New EPOS Model to the STAR Experiment
- 10.40 **Lyuboshitz V.** (JINR)
Possible Effect of Mixed Phase and Deconfinement upon Spin Correlations in
the (Λ $\bar{\Lambda}$) Pairs Generated in Relativistic Heavy-Ion Collisions

Coffee break 11.00 – 11.30

Chairman V. Toneev

- 11.30 **Musulmanbekov G.** (JINR)
On Hypernuclear State in High Energy Heavy Ion Collisions
- 12.00 **Radchenko N.** (Russia)
Nucleus-Nucleus Collisions at Low Energies.
The Effects from non Vacuum Exchange
- 12.20 **Baldina El.** (Russia)
Relativistic Description of Particle Production
and Acceleration by Ion and Laser Beams
- 12.40 **Rogachevsky O.** (JINR)
The Fractal Dimension Estimations
for the Events of Au(Pb)+Emu Interactions
- 13.20 **Litvinenko A.** (JINR)
The Centrality Determination for the NICA/MPD
- 13.40 **Bubelev En.** (JINR)
On the Physical Improbability of the Nuclei Mutual Longitudinal Compression
in Collisions at High and Moreover Super High Energies

Break 14.00 – 15.00

October 7, Thursday
 Blokhintsev Auditorium of BLTP JINR
 Parallel Session

Quantum Chromodynamics at the Large Distances

Chairman St. Gmuca

- 9.00 **Kobushkin A.** (Ukraine)
 Two-photon exchange in electron deuteron scattering
- 9.20 **Galilo B.** (JINR)
 Weyl group, CP and the kink-like field configurations
 in the effective SU(3) gauge theory
- 9.40 **Koryakin V.** (Russia)
 To the Question on the Theory of Magnetic Charges
 and Quantum Chromodynamics at Large Distances
- 10.10 **Amalsky G.** (Russia)
 Explanation of Empirical Ratios $\sigma_{\text{tot}} \approx 5\sigma_{\text{el}}$ and $\sigma_{\text{tot}} \approx \sigma_{\text{tot}}^0 (\sqrt{s}/\sqrt{s_0})^{1/5}$ of N-N
 Cross-Sections at Energies $\sqrt{s} = 5 - 10^4$ GeV and $\sqrt{s} > \sqrt{s_0}$, $\sqrt{s_0} \sim 70$ GeV
- 10.40 **Pestov I.** (JINR)
 Mathematical Principles Unifying General Relativity and Quantum Mechanics

Coffee break 11.00 – 11.30

Studies of exotic nuclei in relativistic beams

Chairman V. Nedorezov

- 11.30 **Krivenkov D.** (JINR)
 Peripheral Dissociation of Relativistic ^{12}C Nuclei in Nuclear Track Emulsion
- 11.50 **Afanasiev S.** (JINR)
 Search Results for Eta-Mesic Nuclei in the $d + \text{C}$ Reaction in JINR
- 12.10 **Gmuca St.** (Slovakia)
 Density Dependent Couplings in RMF Approach
- 12.30 **L'vov A.** (Russia)
 Search for Eta-Mesic Nuclei at the LPI Synchrotron
- 12.50 **Majling L.** (Czech Republic)
 Delayed Clusters Accompanying Non-Mesonic Weak Decay
 of the Hypernuclei. One- and Two-Nucleon Induced Processes
- 13.20 **Rossiyskaya N.** (JINR)
 Formation of Heavy Hyperons and Antihyperons in DIS
 at the COMPASS Experiment

Break 13.40 – 15.00

October 7, Thursday
Conference Hall of BLTP JINR
Plenary Session

Quantum Chromodynamics at the Large Distances

Chairman A. Shebeko

- 15.00 ***Makhaldiani N.*** (JINR)
Renormdynamics, Multiparticle Production, Negative Binomial Distribution
and Riemann Zeta Function
- 15.30 ***Kochelev N.*** (JINR)
Soft Pomeron Structure and Chromomagnetic Quark-Gluon Interaction
- 16.00 ***Bogolubsky I.*** (JINR)
Gluon lumps revisited ?
- 16.20 ***Ganbold G.*** (JINR)
Infrared Behavior of QCD Running Coupling

Coffee break 16.40 – 17.10

Chairman A. Sorin

- 17.10 ***Kosmachev O.*** (JINR)
Universal Constituents for Description
of a Structure Both the Leptons and Hadrons
- 17.30 ***Machavariani A.*** (JINR)
Two Body and three Body Field Theoretical Equations with
and Without Quark Degrees of Freedom
- 17.50 End of the session

19.00 Concert (Dubna Music School)

October 8, Friday
 Conference Hall of BLTP JINR
 Plenary Session

Quantum Chromodynamics at the Large Distances

Chairman Br. Slowinski

- 9.00 **Shebeko A.** (Ukraine)
 Relativistic Interaction for Meson-Nucleon Systems in the Clothed-Particle Representation
- 9.25 **Nikolaev N.** (Germany)
 QCD Unitarily Cutting Rules for Nuclear Collisions
- 9.50 **Savin I.** (JINR)
 Azimutal assymetries in hadron production from longitudinal polarization target
- 10.20 **Smolyansky S.** (Russia)
 Role of Vacuum Polarization in the Annihilation Channel at the Presence of a Strong Laser Field
- 10.40 **Pervushin V.** (JINR)
 Universe as a Higgs Boson Factory

Coffee break 11.00 – 11.30

Progress in experimental studies at the high energy accelerators

Chairman V. Kekelidze

- 11.30 **Abraamyan Kh.** (JINR)
 Resonance Structure in the $\gamma\gamma$ and $\pi^0\pi^0$ Systems
- 12.00 **Suleimanov M.** (JINR)
 Search for a Signal on Phase Transition of Strongly Interacting Matter applying the random matrix approach
- 12.20 **Dryablov D.** (JINR)
 Identification of Xe Bunch at the JINR NUCLOTRON-M Accelerator by the Track Length Measurement Method
- 12.40 **Kurilkin A.** (JINR)
 Single and Double Pion Production in the np-Collisions at 1.25 GeV with HADES
- 13.00 **Kurilkin P.** (JINR)
 Cross Section for dp-Elastic Scattering at 1.25 GeV/u

Break 13.20 – 15.00

October 8, Friday
Conference Hall of BLTP JINR
Plenary Session

Progress in experimental studies at the high energy accelerators

Chairman S. Vokal

- 15.00 ***Feofilov G.*** (Russia)
Onset of ridge phenomena in AA and pp collisions and
percolation string model
- 15.20 ***Maggiore M.*** (Italy)
Transverse Parton Distribution Functions in Drell-Yan Processes at FAIR
- 15.40 ***Kovalenko A.*** (JINR)
First Results on the SPS Beam Collimation with Bent Crystals

Coffee break 16.10 – 16.40

***Relativistic Heavy Ion Collisions.
Cumulative processes***

Chairman A. Vodopyanov

- 16.40 ***Shimanskiy S.*** (JINR)
Study of the Cold Dense Baryonic Matter
with Nonpolarized and Polarized Beams
- 17.20 ***Titov A.*** (JINR)
Cumulative effects in strong electromagnetic fields
- 17.40 ***Stavinskiy A.*** (Russia)
Dense Cold Matter Study with special trigger
at TWA, Nuclotron, NICA and FAIR
- 18.00 ***Sharkov G.*** (Russia)
FLINT Experimental Data on Dense Gold Matter Search with Special Trigger
- 18.40 End of session

- 19.00 **Banquet (Scientists' Club)**

October 9, Saturday
Conference Hall of BLTP JINR
Plenary Session

*Accelerator facilities: status and perspectives.
Progress in experimental studies at the high energy accelerators*

Chairman E. Tomasi-Gustafsson

- 9.00 **Zarubin P.** (JINR)
Clustering in Dissociation of Relativistic ^9Be , ^9C , ^{10}C , and ^{12}N nuclei
- 9.40 **Zelenski A.** (USA)
Polarized Proton Beams in RHIC
- 10.20 **Vodopyanov A.** (JINR)
Status of the LHC
- 10.50 **Rukoyatkin P.** (JINR)
External beams at the Nuclotron facility: status and nearest tasks
- 11.10 **Kovalenko A.** (JINR)
Nuclotron-M: Status and Perspectives

Break 11.30 – 11.40

Chairman V. Burov

- 11.40 **Malakhov A.** (JINR)
Proton-Ion Complex “PROTION”
- 12.00 **Akulichev S.** (Russia)
Novel Accelerator Technologies for Radiation Therapy
- 12.40 **Krasavin E.** (JINR)
Biological Effect of Accelerated Heavy Ions
- 13.20 **Burov V., Malakhov A.** (JINR)
Closing
- 13.30 **Coffee**