

# International Meeting House

**Monday 31.10**

**9:30–10:50** Registration

**11:00 Victor Matveev** (JINR, Dubna),  
*Opening*

Chair: **Victor Matveev**

**11:15 Alexander Sorin** (JINR, Dubna),  
*NICA project at JINR*

**11:40 Igor Meshkov, Grigory Trubnikov** (JINR, Dubna),  
*The accelerator complex NICA: status, problems, perspectives*

**12:15 Oleg Rogachevsky** (JINR, Dubna)  
*Status of investigations of the QCD phase diagram in HIC*

**12:40 Viacheslav Toneev** (JINR, Dubna)  
*Introduction to heavy ion collisions at the NICA energy: what and how*

**13:00 – 14:00 Lunch**

Chair: **Gennady Zinoviev**

**14:00 Yury Ivanov** (NRC KI, Moscow)  
*Three- fluid hydrodynamics based event simulation for collisions at NICA and FAIR energies*

**14:30 Alessia Palmese** (Giessen Uni.)  
*Chiral symmetry restoration in heavy-ion collisions within the PHSD transport approach*

**15:00 Pavel Buividovich** (Regensburg Uni.)  
*Real-time simulations of non-equilibrium chiral plasma*

**15:30 Oleg Denisov** (CERN/INFN , Torino)  
*Complementarity of COMPASS and NICA SPD Drell-Yan programs*

**16:00-16:20 Coffee Break**

Chair: **Yury Ivanov**

**16:20 Makoto Oka** (Tokyo Inst. of Technology)  
*J-PARC Hadron Project and Heavy Quark Physics*

**16:50 Bernd - Jochen Schaefer** (ITP, Giessen Uni. )  
*Chiral Thermodynamics in a finite box*

**17:20 Boris Tomasik** (Matej Bel Uni., Banská Bystrica)  
*Clusters and higher moments of proton number fluctuations*

**17:50 Irina Arefieva** (Steklov MI RAS)  
*What can holography calculate for NICA*

**18:30: Welcome Party**

## Tuesday, 1.11

Chair: **Pavel Buividovich**

- 9:00 Changhwan Lee** (PNU, Pusan)  
*Electromagnetic Radiation in Hot QCD Matter*
- 9:30 Ernst-Michael Ilgenfritz** (JINR, Dubna)  
*New results on the chiral crossover in the twisted-mass approach with 2+1+1 flavors / new physics perspectives*
- 10:00 Alexander Rothkopf** (ITP, Heidelberg Uni. )  
*Towards in-medium heavy-quarkonium phenomenology from lattice QCD based spectral functions*
- 10:30 Victor Braguta** (ITEP, Moscow)  
*Temperature dependence of QGP shear viscosity within lattice SU(3) – gluodynamics*

### 11:00-11:20 Coffee Break

Chair: **Bernd - Jochen Schaefer**

- 11:20 Kyrilo Bugaev** (BITP, Kiev)  
*Liquid droplet formula for Polyakov loop geometrical clusters in SU(2) gluodynamics*
- 11:50 Jana Günther** (Wuppertal Uni.)  
*Towards the QCD phase diagram at finite chemical potential*
- 12:20 Francesca Cuteri** (ITP, Frankfurt)  
*The chiral and deconfinement phase transition at/from imaginary chemical potential*
- 12:50 Semen Valgushev** (ITP, Regensburg Uni.)  
*Effects of on-site interaction on anomaly induced transport in real-time simulations*

### 13:20-14:20 Lunch.

Chair: **Victor Braguta**

- 14:20 Vitaly Bornyakov** (IHEP NRC KI, Protvino)  
 *$N_f=2$  lattice QCD at finite density using canonical ensemble method*
- 14:50 Benjamin Jaeger** (ETH, Zuerich)  
*Towards the QCD phase diagram using Complex Langevin*
- 15:20 Andrey Kotov** (ITEP, Moscow)  
*Phase diagram of dense two-color QCD within lattice simulations*
- 15:40 Lukas Holicki** (ITP, Giessen University)  
*Two Colour QCD at Finite Density*

### 16:00-16:20 Coffee Break

Chair: **Changhwan Lee**

- 16:20 Elena Luschevskaya** (ITEP, Moscow)  
*Magnetic polarizability of pion*
- 16:40 Roman Rogalyov** (IHEP NRC, Moscow)  
*The  $A^2$  asymmetry and propagators in lattice SU(2) gluodynamics at  $T > T_c$*
- 17:00 Pandiat Saumia** (JINR, Dubna)  
*Dynamic restoration of  $Z_N$  symmetry in SU(N) + Higgs theories*
- 17:20 Masayasu Hasegawa** (JINR, Dubna)  
*Chiral symmetry breaking, instantons, and monopoles in lattice QCD*
- 17:40 Alexander Parvan** (JINR, Dubna)  
*Transverse Momentum Distribution of Hadrons in the Tsallis Statistics*

## Excursions to Nuclotron/NICA

## Wednesday, 2.11

Chair: **Boris Tomasik**

- 9:00 Boris Martemyanov** (ITEP, Moscow)  
*For what do we like dyons!?*
- 9:30 Vadym Voronyuk** (JINR, Dubna)  
*Directed flow in asymmetric nucleus-nucleus collisions and the inverse Landau-Pomeranchuk-Migdal effect.*
- 10:00 Dmitry Voskresensky** (MEPhI, Moscow)  
*On manifestation of in-medium effects in heavy-ion collisions*
- 10:30 Andrey Khvorostukhin** (JINR, Dubna)  
*Pion and proton rapidity spectra within the hybrid model HydHSD*

### 11:00-11:20 Coffee Break

Chair: **Alexander Rothkopf**

- 11:20 Su Hounq Lee** (Yonsei Uni.)  
*A Novel probe of chiral restoration in nuclear matter*
- 11:50 Richard Williams** (ITP, Giessen Uni.)  
*Hadron Properties from Dyson-Schwinger equations*
- 12:20 Mario Mitter** (Heidelberg Uni.)  
*QCD phase structure from the functional RG*
- 12:50 Anton Cyrol** (Heidelberg Uni.)  
*Yang-Mills theory at zero and finite temperature from the FRG*

### 13:20-14:20 Lunch

Chair: **Makoto Oka**

- 14:20 Nikolai Kochelev** (JINR, Dubna)  
*Glueballs in the hot plasma*
- 14:50 Denis Parganlija** (TU, Wien)  
*Glueballs and vector mesons at NICA*
- 15:20 Valeria Pagura** (Uni. de Valencia)  
*Inverse magnetic catalysis in nonlocal chiral quark models*
- 15:50 Victor Kim** (SPbPU, St.-Petersburg)  
*Study of Superdense Cold Baryon Matter by Cumulative Processes*

### 16:20-16:40 Coffee Break

Chair: **Dmitry Voskresensky**

- 16:40 Sergei Dorkin** (JINR, Dubna)  
*Dyson-Schwinger equation at zero and finite temperatures*
- 17:10 Andrey Radzhabov** (ISDCT SB RAS, Irkutsk)  
*Mott dissociation of pions and kaons in quark matter*
- 17:40 Evgeny Zabrodin** (University of Oslo)  
*Thermalisation and Equilibration in Relativistic Heavy Ion Collisions*
- 18:10 Stepan Shimanskiy** (JINR, Dubna)  
*The cold superdense baryonic matter*

**19:00 – 20:00 Concert, Scientific Club**

**20:00 Reception**

## Thursday, 3.11

Chair: **Yury Kalinovsky**

**9:00 Mikhail Nalimov** (SPbSU, St.-Petersburg)

*Investigation of the static and dynamic properties of the quantum phase transition: the RG approach.*

**9:30 Sergei Nedelko** (JINR, Dubna)

*Domain wall networks as QCD vacuum: confinement-deconfinement, breakdown and restoration of chiral symmetry*

**10:00 Ajit Srivastava** (Inst. Phys., Bhubaneswar)

*Effect of superfluid vortices and magnetic field on the power spectrum of flow fluctuations*

**10:30 Jingui Chao** (ChAS, Lanzhou)

*Pion condensation in an electromagnetism environment at finite temperature*

### 11:00-11:20 Coffee Break

Chair: **Ajit Srivastava**

**11:20 Stanislav Smolyansky** (Saratov Uni).

*Features of the kinetic description of the particle -antiparticle plasma creation from vacuum under action of strong electromagnetic and gluon fields*

**11:50 Violetta Sagun** (BITP, Kiev)

*Chemical freeze-out irregularities as an evidence of quark-gluon plasma*

**12:20 Oleksii Ivanytskyi** (BITP, Kiev)

*Hadron resonance gas model for an arbitrarily large number of different hard-core radii*

**12:50 Genis Musulmanbekov** (JINR, Dubna)

*On Hyperon Production at NICA Energies*

### 13:20-14:20 Lunch

Chair: **Victor Kim**

**14:20 Alexey Guskov** (JINR, Dubna)

*Spin Physics at NICA-SPD with polarized proton and deuteron beams*

**14:50 Igor Anikin** (JINR, Dubna)

*Polarized Drell-Yan Process: Inclusive and Exclusive modes*

**15:20 Mridupawan Deka** (JINR, Dubna)

*Lattice QCD Studies of Nucleon Structure from  $\chi$ QCD collaboration*

**15:50 Alexander Ayriyan** (JINR, Dubna)

*Bayesian Analysis of Realistic Hybrid EoS Models of Stellar Matter Based on M-R Data*

### 16:20-16:40 Coffee Break

Chair: **Alexander Dorokhov**

**16:40 Hovik Grigorian** (JINR, Dubna)

*Cooling of Neutron Stars*

**17:10 David Alvarez Castillo** (JINR, Dubna)

*Neutron star mass limit at  $2M_{\odot}$  supports the existence of a CEP*

**17:40 -18:00** Closing