

**August 24** Session "Mathematics and nonlinear mechanics"

DIAS Hall, ground floor

Chair: I. Volovich

- 15:00 - 15:20 D. Kostomarov  
*Fundamental properties of averaged kinetic models for toroidal plasmas*
- 15:20 - 15:40 I. Peshkov  
*Godunov form of conservation laws in the nonlinear elasto-plasticity theory*
- 15:40 - 16:00 H. Neidhardt  
*Linear non-autonomous Cauchy problems and evolution semigroups*
- 16:00 - 16:20 O. Groshev  
*On the existence and uniqueness of classical solutions to the wave equation on non-globally hyperbolic manifolds*
- 16:20 - 16:40 L. Efremova  
*One-dimensional attracting sets of some skew products in the plane: analytic existence conditions*
- 16:40 - 17:00 A. Motovilov  
*Optimal bounds on rotation of spectral subspaces*

17:00 - 17:20 COFFEE BREAK

Chair: A. Sergeev

- 17:20 - 17:40 A. Alexeeva  
*1-soliton solution of the (2+1)-dimensional equation A5*
- 17:40 - 18:00 V. Lykah  
*Nonlinear rotational dynamics of the molecular chain in middle energy interval: from equilibrium through melting*
- 18:00 - 18:20 V. Sakbaev  
*On the stochastic properties of degenerated quantum systems*
- 18:20 - 18:40 H. Fukuda  
*Three body problem on given curve*
- 18:40 - 19:00 V. Varlamov  
*Group averaging for de Sitter free fields in terms of hyperspherical functions*
- 19:00 - 19:20 L. Chekhov  
*Orbifold Riemann Surfaces and Yangian extensions of geodesic algebras*

**20:00**

**WELCOME PARTY**



## August 24, Monday

### Session "Quantum field theory and theory of elementary particles"

Conference Hall, 2nd floor

Chair: K. Jansen

- 15:00 - 15:30 V.Manko  
*Bogolyubov transform in probability representation of quantum mechanics*
- 15:30 - 16:00 A. Starinets  
*Transport coefficients in strongly interacting quantum field theories from gauge-gravity duality*
- 16:00 - 16:30 M. Polikarpov  
*Chiral symmetry breaking and chiral magnetic effect in lattice gluodynamics with background magnetic field*
- 16:30 - 17:00 V. Andrianov  
*Parity violation in QCD motivated hadron models at extreme conditions*
- 17:00 - 17:20 COFFEE BREAK

Chair: R. Faustov

- 17:20 - 17:40 A. Barvinsky  
*Renormalization group and Higgs mass in inflationary cosmology with a non-minimally coupled Higgs field*
- 17:40 - 18:00 V. Fadin  
*Low  $x$  evolution equations in Mobius representation*
- 18:00 - 18:20 N. Achasov  
*Light scalar mesons as manifestation of spontaneously broken chiral symmetry*
- 18:20 - 18:40 I. Ginsburg  
*Vacuum evolution and phase transitions during Universe cooling in 2HDM*

20:00 WELCOME PARTY

## August 24, Monday

### Session "Statistical mechanics, kinetics and quantum theory of condensed matter" (*StatMech*)

Lecture Hall, 2nd floor

Chair: V. Zagrebnov

15:00 - 15:30 N.N. Bogolyubov, jr.  
*Operator analysis of a reduced polaron model in magnetic field at finite temperature*

15:30 - 16:00 P. Exner  
*Approximations of quantum graph Hamiltonians by scaled Schrödinger operators on manifolds*

16:00 - 16:30 J. Yngvason  
*The interacting Bose gas: a continuing challenge*

16:30 - 17:00 N.M. Bogolyubov  
*Correlation functions for the totally asymmetric exactly solvable models*

17:00 - 17:20 COFFEE BREAK

Chair: N.M. Bogolyubov

17:20 - 17:40 F. Göhmann  
*Static correlation functions of the Heisenberg-Ising chain*

17:40 - 18:00 A. Klümper  
*Exact Computation of Correlation Functions for Integrable Lattice Models*

18:00 - 18:20 D. Sankovich  
*Bogolyubov's theory of Superfluidity*

18:20 - 18:40 M. Kovalevsky  
*Quasiaverages and Classification of Equilibrium States of Degenerate Condensed Media*

20:00 WELCOME PARTY

## August 24, Monday

Session "Statistical mechanics, kinetics and quantum theory of condensed matter" (*CondMatt*)

*Blokhintsev Hall, 4nd floor*

*Chair: V. Aksenov*

- 15:00 - 15:30 *A. Belushkin*  
*Neutron research as a strategic tool for industrial and technological progress*
- 15:30 - 16:00 *K. Kadowaki*  
*THz radiation from cylindrical and rectangular mesas of  $\text{Bi}_2\text{Sr}_2\text{CaC}_2\text{O}_{8+\delta}$  intrinsic Josephson junctions*
- 16:00 - 16:30 *N. Plakida*  
*Theory of high-temperature superconductivity in cuprates*
- 16:30 - 17:00 *V. Moskalenko*  
*Diagrammatic analysis of the Hubbard model: Stationary property of the thermodynamic potential*
- 17:00 - 17:20 COFFEE BREAK

*Chair: V. Osipov*

- 17:20 - 17:40 *Yu. Shukrinov*  
*Tunneling in superconducting structures*
- 17:40 - 18:00 *A.A. Vladimirov*  
*Dynamic spin susceptibility in the  $t$ - $J$  model*
- 18:00 - 18:20 *A. Cherny*  
*Decay of superfluid currents in the interacting one-dimensional Bose gas*
- 18:20 - 18:40 *V. Katkov*  
*The specific of field emission for carbon nanosheets*
- 20:00 WELCOME PARTY

## August 24, Monday

### Session "Nuclear physics"

*LNP Conference Hall, 2nd floor*

*Chair: A.I. Vdovin*

- 15:00 - 15:20 *S. Ershov*  
*Fragment correlations in two-neutron halo nuclei*
- 15:20 - 15:40 *O. Rubtsova*  
*Quantum scattering theory on the momentum lattice*
- 15:40 - 16:00 *E. Kolganova*  
*Helium trimer in the framework of Faddeev approach*
- 16:00 - 16:20 *A. Matveenko*  
*Definition of free hyperradial dynamics*
- 16:20 - 16:40 *R. Nazmitdinov*  
*Symmetry breaking in finite Fermi systems: quantum dots and rotating nuclei*
- 17:20 - 17:40 COFFEE BREAK
- 20:00 WELCOME PARTY