PROGRAMME

BOGOLYUBOV CONFERENCE

«PROBLEMS OF THEORETICAL AND MATHEMATICAL PHYSICS»

MOSCOW-DUBNA, 2-6 SEPTEMBER, 2004

September 1, Wednesday Dubna

Arrival. Registration (Hotel "Dubna")

September 2, Thursday Moscow, ***Mathematical Institute of RAS***

11:00 Yu.S. Osipov
Opening. Welcome

11:10-11:40 V.S. Vladimirov (Moscow)
"Bogolyubov and development of mathematical physics"

11:40-12:10 Yu.A. Mitropol'sky (Kyiv)
"On non-linear mechanics"

12:10-12:40 D.V.. Treshchev (Moscow)
"Conservation laws for quantum systems on the torus"

12:40-13:10 J. Devreese (Belgium)
"Polarons in high – Tc superconductivity "

13:10-14:10 ***Lunch break***

14:10-14:30 Moving to Novodevichy cemetery

14:30-15:00 In memory of N.N. Bogolyubov
Novodevichy Cemetery

15:00 Departure to Dubna

19:30 Welcome party (Hotel "Dubna")

September 3, Friday Dubna, ***BLTP JINR***

Plenary Session (Conference hall, 2nd floor)

9:30-9:40 V.G. Kadyshevsky
Greetings

9:40- 11:00 A.N. Bogolyubov, M.N. Bogolyubov, N.N. Bogolyubov, jr.
V.S.Vladimirov, A.A. Logunov, A.N. Tavkhelidze, V.A. Matveev
(Reminiscences, memories)

11:00-11:30 ***Coffee/tea break***

Plenary Session: *Quantum Field Theory*

11:30-12:00 D.V. Shirkov (JINR)
"The Bogoliubov renormalization group, 50 years later"

12:00-12:30 D.A. Slavnov (Moscow)
"Concept of the objective local reality in quantum theory"

12:30-13:00 L.N. Lipatov (St. Petersburg)
"BFKL and DGLAP equations in N=4 SUSY"

13:00-13:30 V.S. Fadin (Novosibirsk)
"BFKL approach at next-to-leading order"

13:30-15:00 ***Lunch break***

Session: *Quantum Field Theory*

15:00-15:20 G. Scarpetta (Italy)
"Born-Infeld kinematics and quantum groups"

15:20-15:40 G.V. Efimov (JINR)
"On the stability of QED and QCD"

15:40-16:00 V.V Belokurov (Moscow)
"Renormalizable quantum field theory as a limit of a quantum-field model defined on a loop space"

16:00-16:20 D. L. Bennet (Denmark)
"Non-locality required by fine tuning and multi degenerate vacua"

16:20-16:50 ***Coffee/tea break***

16:50-17:10 F. Jegerlehner (Germany)
"Status of the muon g-2"

17:10-17:30 S. Eidelman (Russia)
"Low energy e^+e^- annihilation and muon g-2"

17:30-17:50 D. Polyakov (Lebanon)
"Fluid dynamics of NSR strings"

17:50-18:10 V.N. Rodionov (Russia)
"Polarization of the electron-positron vacuum by a strong magnetic field in the theory with a fundamental mass"

18:10-18:30 L.V. Laperashvili (Moscow)
"The multiple point principle and the Higgs bosons"

18:30-18:50 D.I. Kazakov (JINR)
"The status of the MSSM and supersymmetric astroparticle physics"

Special evening session

18:50-19:20 P.S. Isaev (JINR)
"N.N. Bogoliubov: life and creative work in Dubna"

September 4, Saturday Dubna, ***BLTP JINR***

Plenary Session: *Statistical physics and kinetics*

9:00-9:30 P. Entel (Germany)
"Magnetism and correlation effects in nanoparticles"

9:30-10:00 A.G. Zagorodny (Kiev)
"Diffusion in velocity space caused by strong random fields"

10:00-10:30 V.A. Zagrebnov (France)
"Bogolyubov approximating Hamiltonian method for boson models"

10:30-11:00 V.L. Aksenov (JINR)
"Kinetics of the cluster growth in fullerene molecular solutions"

11:00-11:30 ***Coffee/tea break***

11:30-12:00 E.E. Tareeva (Troitsk)
"New kinds of phase transitions: transformations in disordered substances"

12:00-12:30 N. Plakida (JINR)
"The theory of superconductivity in cuprates"

12:30-13:00 A. Avella (Italy)
"Composite operator method: history and perspectives"

13:00-13:30 N. Tonchev (Bulgaria)
"Behavior of systems with long-range interaction in restricted geometry"

13:30-15:00 ***Lunch break***

Session: *Statistical physics and kinetics*

15:00-15:20 J.D. Brankov (Sofia)
"Finite-size scaling and universality at non-equilibrium phase transitions"

15:20-15:40 A.D. Sukhanov (JINR)
"A recent view at thermodynamics of open quantum systems"

15:40-16:00 V.A. Moskalenko (JINR)
"Strong interaction of correlated electrons with phonons"

16:00-16:20 Yu.A. Sitenko (Kiev)
"Fractionalization of angular momentum in planar quantum systems at nonzero temperature"

16:20-16:50 ***Coffee/tea break***

16:50-17:10 V.N. Ryzhov (Troitsk)
"Collapse transition in mixtures of bosons and fermions"

17:10-17:30 I. Vakarchuk (Ukraine)
"A particle moving in a space with coordinate deformed Heisenberg algebra"

17:30-17:50 A. Povolotsky (Portugal)
"The asymmetric avalanche process"

17:50-18:10 A. Prikarpatsky (Ukraine)
"De-Rham-Hodge-Skrypnik theory of multidimensional Delsarte differential operators and applications in nonlinear dynamical systems"

18:10-18:30 S. Lyagushin (Dniepropetrovsk)
"Kinetics of emitters of electromagnetic field in the Bogolyubov reduced description method"

18:30-18:50 S. Kruchinin (Kiev)
"Two-gap superconductivity in MgB2"

18:50-19:10 R. Nazmitdinov (JINR)
"Hidden Symmetries in two-electron quantum dots"

19:30 Conference dinner (Hotel "Dubna")

September 5, Sunday

Free day. Excursion

September 6, Monday Dubna, ***BLTP JINR***

Plenary Session: *New trends in Quantum Field Theory*

9:00-9:30 A.A. Slavnov (Moscow)
"Progress in non-commutative field theories"

9:30-10:00 A.G. Sergeev (Moscow)
"On non-commutative Seiberg-Witten equations"

10:00-10:30 V. Kuvshinov (Minsk)
"Fidelity and Wilson loop in QCD and quantum computations"

10:30-11:00 M. Polikarpov (Moscow)
"Qualitative properties of elementary particles from supercomputers"

11:00-11:30 ***Coffee/tea break***

Plenary Session: *Elementary particles theory*

11:30-12:00 A. Andrianov (St. Petersburg)
"Stringification of chiral dynamics"

12:00-12:30 B.A. Arbuzov (Moscow)
"The Bogolyubov's quasiaverages method and dynamical electroweak symmetry breaking"

12:30-13:00 S. Derkachov (St. Petersburg)
"Quantum integrability in (super) Yang-Mills theory on the light cone"

13:00-13:30 I.A. Savin (JINR)
"Recent results on the nucleon spin structure"

13:30-15:00 ***Lunch break***

Session: *New trends in Quantum Field Theory and elementary particles theory*

15:00-15:20 A. Dynin (USA)
"Quantum string theory as third quantization"

15:20-15:40 N. Achasov (Novosibirsk)
"Problem of light scalar meson"

15:40-16:00 A.V. Efremov (JINR)
"On single spin asymmetries in hard processes"

16:00-16:20 L. Jenkovszky (Kyiv)
"Generalized parton distributions, analyticity and crossing"

16:20-16:40 ***Coffee/tea break***

16:40-17:00 F. Tkachov (Moscow)
"Generalized functions: from perturbative integrals to experimental data processing"

17:00-17:20 I.D. Manjavidze (JINR)
"S-matrix formulation of thermodynamics"

17:20-17:40 A. Dorokhov (JINR)
"Nonlocality of instanton vacuum and latest results on muon anomaly"

17:40-18:00 O.V. Teryaev (JINR)
"Irreversibility of QCD evolution equations"

18:00-18:20 A. Bakulev (JINR)
"Pion form factor in NLO analytic QCD perturbation theory"

18:20-18:40 A.L. Kataev (Moscow)
"The structure of the Godfried sum rule for deep-inelastic lepton-nucleon scattering".

18:40 Closing

September 7, Tuesday

Departure