

The 7th APCTP-BLTP JINR Joint Workshop  
Modern Problems in Nuclear and Elementary Particle Physics  
July 14-19, 2013

July 14

18.00 Reception

July 15

9.00-9.10 V. Voronov (BLTP JINR)  
Opening

Chairman V. Voronov

9.10-9.50 Dong-Pil Min  
Ambassador for Science and Technology Cooperation of Republic of Korea,  
21st C. Da Vinci Society  
Science diplomacy for international cooperation

9.50-11.30 A. Fomichev (FLNR JINR)  
Study of light exotic systems and super heavy elements in JINR

10.30-11.00 Coffee

Chairman Wooyoung Kim

11.00-11.40 Insik Kevin Hahn (Ewha Womans University)  
Prospects for Nuclear Astrophysics Experiments in Korea

11.40-12.20 S. Ershov (BLTP JINR)  
Cluster models with core excitations: Applications to radioactive nuclei

12.20-14.00 Lunch

**Chairman Yongseok Oh**

14.00-14.40 Atsushi Hosaka (Research Center for Nuclear Physics (RCNP)  
Osaka University)  
Hadronic molecules with heavy quarks

14.40-15.20 Hee-Jung Lee (Chungbuk National University)  
A QCD sum rule study of  $f_0(980)$ .

15.20-15.50 Coffee

**Chairman A. Dorokhov**

15.50-16.40 Makoto Oka (Department of Physics of Tokyo Institute of Tech-  
nology)  
Production the tetraquark states in the  $e^+ + e^-$  collisions

16.40-17.20 Huiyoung Ryu (Korea Institute of Science and Technology In-  
formation)  
Photoproduction of multi-kaons in an effective Lagrangian approach

17.20-18.00 S. Bondarenko (BLTP JINR)  
Bethe-Salpeter approach with the separable interaction for the deuteron

July 16

**Chairman Makoto Oka**

9.00-9.40 Chang-Hwan Lee (Pusan National University)  
Neutron Star Equations of State and Gravitational Waves

9.40-10.20 A. Zubov (BLTP JINR)  
Production of superheavy and exotic nuclei in fusion reactions

10.20-10.50 Coffee

**Chairman S. Ershov**

10.50-11.30 Seonho Choi (Seoul National University)  
Indication of Shell Closure for  $N=16$  using  $^{24}\text{O}$  Isotope

11.30-12.10 I. Egorova (BLTP JINR)  
Democratic decay of  $^6\text{Be}$  studied in direct reactions

12.10-14.00 Lunch

**Chairman Atsushi Hosaka**

14.00-14.40 A. Titov (BLTP JINR)  
Non-Perturbative Quantum Effects in Strong Electromagnetic Fields

14.40-15.20 A. Dorokhov (BLTP JINR)  
Muon  $g-2$  and other low energy tests of Standard Model

15.20-16.00 A. Zhevlakov (Institute for System Dynamics and Control Theory SB RAS, Irkutsk and BLTP JINR)  
Anomaly  $g-2$  of muon: Light-by-Light contribution in nonlocal quark model

16.00-16.30 Coffee

**Chairman A. Fomichev**

16.30-17.10 Yu. Parfenova (FLNR JINR)  
Investigation of structure of states and dynamics of nuclear decays on the boundary of proton and neutron stability for  $^6\text{Be}$  and  $^{17}\text{Ne}$  case

17.10-17.50 Myung Gi Cheon (Soongsil University)  
Symmetry Energy and Equation of states for finite and infinite nuclear systems

July 17

**Chairman Dong-Pil Min**

9.00-9.40 Yongseok Oh (Kyungpook National University)  
Skyrmions with vector mesons in hidden local symmetry

9.40-10.20 Byung-Yoon Park (Chungnam National University)  
Dense Baryonic Matter in Hidden Local Symmetry

10.20-10.50 Coffee

**Chairman E.-M. Ilgenfritz**

10.50-11.30 A. Radzhabov (Dynamics and Control Theory Siberian Branch of Academy of Science of Russia, Irkutsk)

Fluctuations of conserved charges in the nonlocal chiral quark model at finite temperatures

11.30-12.10 N. Kochelev (BLTP JINR)

Glueballs and Quark-Gluon Plasma Dynamics

12.10-14.00 Lunch

**Chairman Myung Gi Cheon**

14.00-14.40 Yu. Markov (Institute for System Dynamics and Control Theory Siberian Branch of Academy of Sciences of Russia, Irkutsk)

”Soft-quark bremsstrahlung and energy losses of high-energy color-charged partons in a hot quark-gluon plasma”.

14.40-15.20 M. Markova (Institute for System Dynamics and Control Theory Siberian Branch of Academy of Sciences of Russia, Irkutsk)

On the fluctuation-dissipation theorem for soft fermionic excitations in a hot QCD plasma

15.20-15.50 Coffee

**Chairman A. Radzhabov**

15.50-16.30 Hiroyuki Kamano (Research Center for Nuclear Physics (RCNP) Osaka University)

Dynamical coupled-channels approach to light-flavor baryon spectroscopy

16.30-17.00 V. Lomov (Irkutsk State University)

Renormalization procedure for fermions with CP invariant interaction

17.00-17.30 A. Kaloshin (Irkutsk State University)

Loop mixing of the opposite parity fermion fields and its manifestation in  $\pi N$  scattering

17.30-18.00 S. Korenblit (Irkutsk State University)

Finite temperature bosonization for the Thirring model

July 18

Chairman A. Arbuzov

9.00-9.40 Hong Joo Kim (Kyungpook National University)  
Dark matter search (KIMS) and Neutrino-less double beta decay search (AMoRE)  
project in Korea

9.40-10.20 A. Gladishev (BLTP JINR)  
Searches for supersymmetry at LHC

10.20-10.50 Coffee

Chairman Bumhoon Lee

10.50-11.30 A. Arbuzov (BLTP JINR)  
Top-quark condensate and spontaneous symmetry breaking in the Standard  
Model

11.30-12.10 Hyun Kyu Lee (Hanyang University)  
Symmetry energy in the era of advanced gravitational detectors

12.10-14.00 Lunch

14.00-18.00 Excursion

19.00 Workshop dinner

July 19

Chairman A. Gladishev

10.00-10.40 Bumhoon Lee (Center for Quantum Spacetime (CQUeST), So-  
gang University)  
Holographic Approach to QCD

10.40-11.10 Coffee

11.10-11.50 E.-M. Ilgenfritz (VBLHEP JINR).  
The Quark Gluon Plasma from Lattice Gauge Theory  
11.50-14.00 Lunch

**Chairman Chang-Hwan Lee**

**14.00-14.40 Wooyoung Kim (Kyungpook National University)  
Deeply Virtual Compton Scattering and Meson Production for Generalized  
Parton Distributions**

**14.40-15.20 N. Budnev (Irkutsk University)  
The Tunka multicomponent EAS detector for high energy cosmic ray physics  
and gammaastronomy**

**15.20 V. Voronov  
Closing**