

---

## PROGRAM

THE 12TH APCTP-BLTP JINR JOINT WORKSHOP ON  
“Modern Problems in Nuclear and Elementary Particle Physics”

**Venue:** Centum Premier Hotel, Haeundae, Busan, Korea

**Period:** August 20 - 24, 2018

**Workshop homepage:** <https://www.apctp.org/plan.php/apctp-bltp2018>

**Supported by:** APCTP, BLTP@JINR, CHEP@KNU



*August 19*

You are cordially invited to the APCTP reception.

Sunday 8/19

6:30 PM

APCTP Reception (플아래채, 051-743-0125)  
Please come to the hotel lobby at 6:30 PM.

August 20

Monday 8/20		
<b>Session 1 (Convener: C.-H. Lee)</b>		
8:15 AM	Registration	
8:45 AM	Welcome remarks	
9:00 AM	The complex configuration effects in the nuclear structure problems	Victor Voronov (JINR)
9:30 AM	Production of neutron-rich heavy and superheavy nuclei in multinucleon transfer reactions	Alexander Karpov (JINR)
10:00 AM	Probing high momentum protons and neutrons in asymmetric nuclei	Wooyoung Kim (Kyungpook Nat. Univ.)
10:30 AM	Coffee Break	
11:00 AM	Effects of tensor forces from <i>ab initio</i> calculations	Jie Meng (Peking Univ.)
11:30 AM	Toy model for nuclei	Ghi Ryang Shin (Andong Nat. Univ.)
12:00 PM	Lunch	
<b>Session 2 (Convener: S. Ershov)</b>		
2:00 PM	Gravitational waves and tidal deformability of neutron stars	Chang-Hwan Lee (Pusan Nat. Univ.)
2:30 PM	Particle production by oscillating curvature in $R + R^2$ cosmology	Elena Arbuzova (Dubna St. Univ. and Novosibirsk St. Univ.)
3:00 PM	Coffee Break	
3:30 PM	Symmetries of the Standard Model	Alexey Gladyshev (JINR)
4:00 PM	Ground hadron states in composite superconformal string model	Alla Semenova (NRC KI, PNPI)
4:30 PM	Double-heavy hadrons from supersymmetric light front holographic QCD	Liping Zou (IMP, CAS)
4:45 PM	Phase diagram of two-color QCD matter at finite baryon and axial isospin densities	Jingyi Chao (IMP, CAS)
5:00 PM	Adjourn (approximate)	

August 21

Tuesday 8/21		
	<b>Session 3 (Convener: P. Zhang)</b>	
9:00 AM	Hadron spectroscopy from the production and decay of $\Lambda_c$ and $\Lambda_b$	Bing-Song Zou (ITP, CAS)
9:30 AM	$K^+\Lambda$ photo- and electro-production off proton	Dalibor Skoupil (Kyushu Univ.)
10:00 AM	Hadronic and semileptonic decays of $B_c$ mesons	Aidos Issadykov (JINR)
10:30 AM	Coffee Break	
11:00 AM	The proton radius puzzle	Alexander Dorokhov (JINR)
11:30 AM	Radiative corrections to quasi-elastic neutrino-nucleon scattering	Andrei Arbuzov (JINR)
12:00 PM	Lunch	
	<b>Session 4 (Convener: H.-J. Lee)</b>	
2:00 PM	The few-nucleon systems in the Bethe-Salpeter approach	Serge Bondarenko (JINR)
2:30 PM	The $S_{E1}$ -factor of radiative $\alpha$ -capture on $^{12}\text{C}$ in effective field theory	Shung-Ichi Ando (Sunmoon University)
3:00 PM	Charge symmetry violation effect in kaon and pion structure	Parada T P Hutaaruk (APCTP)
3:30 PM	Coffee Break	
4:00 PM	<b>Memorial Session for late Professor Nikolai Innokentievich Kochelev (26.10.1953 - 05.04.2018)</b> Speech by V. Voronov, A. Dorokhov, P. Zhang, H.-J. Lee, V. Vento, V. Kim	
4:30 PM	Adjourn (approximate)	

August 22

Wednesday 8/22		
Session 5 (Convener: A. Arbuzov)		
9:30 AM	Phase transition in dense skyrmion matter	Byung-Yoon Park (Chungnam Nat. Univ.)
10:00 AM	Transverse momentum distributions of hadrons in heavy-ion and $pp$ collisions with the Tsallis statistics	Alexandru Parvan (JINR)
10:30 AM	Coffee Break	
11:00 AM	Doubly charmed hadron production in relativistic heavy ion collisions	Sungtae Cho (Kangwon Nat. Univ.)
11:30 AM	Recent light flavor production at LHC	In-Kwon Yoo (Pusan Nat. Univ.)
12:00 PM	Lunch	
2:00 PM	<b>Excursion (Songdo)</b>	
6:30 PM	<b>Banquet (Korean Buffet)</b>	
8:30 PM	Adjourn (approximate)	

August 23

Thursday 8/23		
<b>Session 6 (Convener: N. Antonenko)</b>		
9:00 AM	Thermal systems and black holes	Bum-Hoon Lee (Sogang Univ.)
9:30 AM	The elusive glueballs	Vicente Vento (Univ. of Valencia)
10:00 AM	On the effective strong coupling and properties of hadrons and glueballs	Gurjav Ganbold (JINR)
10:30 AM	Coffee Break	
11:00 AM	Exotic glueball states from QCD sum rules	Alexandr Pimikov (IMP, CAS)
11:30 AM	A new mechanism to form hadronic molecules	Lisheng Geng (Beihang Univ.)
12:00 PM	Lunch	
<b>Session 7 (Convener: J. Meng)</b>		
2:00 PM	Status of LAMPS at RAON	Byungsik Hong (Korea Univ.)
2:30 PM	Study of $^{19}\text{Ne}$ and $^{19}\text{F}$ structures for astrophysical implication	Kevin Insik Hahn (Ewha Womans Univ.)
3:00 PM	Jost-matrix analysis of the resonance $^5\text{He}^*(\frac{3}{2}^+)$ near the $dt$ -threshold	Sergey Ershov (JINR)
3:30 PM	Adjourn (approximate)	

*August 24*

Friday 8/24		
Session 8 (Convener: Y. Oh)		
9:30 AM	Possibilities of production of new isotopes	Nikolai Antonenko (JINR)
10:00 AM	Viscous HydHSD: proton and pion transverse momentum and rapidity spectra	Andrey Khvorostukhin (JINR)
10:30 AM	Daejeon-16 for light nuclei	Youngman Kim (IBS)
11:00 AM	Coffee Break	
11:30 AM	Current progress in the NICA project	Evgeny Stokovskiy (JINR)
12:00 PM	Closing Remarks	Victor Voronov (JINR)
12:20 PM	Lunch	
2:00 PM	Collaboration discussions in small groups	
6:00 PM	Adjourn	