



# 13th APCTP - BLTP JINR Joint Workshop "Modern Problems in Nuclear and Elementary Particle Physics"

## Monday, 15 July 2019

### Modern problems in nuclear and elementary particle physics (09:30 - 11:00)

-Conveners: Victor Voronov

time	[id] title	presenter
09:30	[49] Shape coexistence in nuclei	Prof. JOLOS, Rostislav
10:00	[28] Study of nuclear structure with a generalized Skyrme functional	Prof. OH, Yongseok
10:30	[2] Electron Ion Collider Plan in China (EicC)	Prof. CHEN, Xurong

### Modern problems in nuclear and elementary particle physics (11:30 - 13:00)

-Conveners: Rostislav Jolos

time	[id] title	presenter
11:30	[67] Modeling of Physical Phenomena in Superconducting Nanostructures	Prof. SHUKRINOV, Yury
12:00	[19] Scalar meson $a_0(980)$ as the mixed tetraquark within QCD sum rules	Prof. LEE, Hee-Jung
12:30	[41] The Isoscalar Mesons and Exotic States in Light Front Holographic QCD	Dr ZOU, Liping

### Modern problems in nuclear and elementary particle physics (14:30 - 16:00)

-Conveners: Hee-Jung Lee

time	[id] title	presenter
14:30	[35] On $\rho$ meson generalized parton distributions	Prof. DONG, Yubing
15:00	[47] Baryon Polarization in heavy-Ion Collisions	TERYAEV, Oleg
15:30	[8] Interaction of a twisted Dirac particle with a magnetic field in high energy physics	Prof. SILENKO, Alexander

### Modern problems in nuclear and elementary particle physics (16:30 - 18:00)

-Conveners: Yubing Dong

time	[id] title	presenter
16:30	[5] B-splines and Bernstein basis polynomials	Prof. ERSHOV, Sergey
17:00	[17] The structure of low-energy excited states in even-even spherical nuclei within a multiphonon approach	Prof. STOYANOV, Chavdar
17:20	[4] Vortical toroidal mode in nuclei: recent progress	Prof. NESTERENKO, Valentin
17:40	[46] Transfer products accompanying complete fusion	Dr KALANDAROV, Shuhrat

**Tuesday, 16 July 2019****Modern problems in nuclear and elementary particle physics (09:30 - 11:00)****-Conveners: Myung-Ki Cheoun**

time	[id] title	presenter
09:30	[33] Revival of supersymmetric dark matter	Dr ARBUZOVA, Elena
10:00	[15] The central cusps in dark matter halos: fact or fiction?	Prof. BAUSHEV, Anton
10:20	[26] Matrix elements for neutrinoless double beta decay	Prof. SIMKOVIC, Fedor
10:40	[69] Ordinary muon capture studies by means of gamma-spectroscopy	Mrs ZINATULINA, Daniya

**Modern problems in nuclear and elementary particle physics (11:30 - 13:00)****-Conveners: Oleg Teryaev**

time	[id] title	presenter
11:30	[6] The Pomeron, Odderon, and nucleon resonances in $\varphi$ -meson photoproduction	Dr KIM, Sangho
12:00	[68] BFKL evolution manifestations in jet production at colliders	Prof. KIM, Victor
12:20	[43] A Froissart-bounded longitudinal structure function	Dr KOTIKOV, Anatoly
12:40	[54] Beyond the Standard Model and neutrino precision test	Dr DAS, Chitta Ranjan

**Modern problems in nuclear and elementary particle physics (14:30 - 16:00)****-Conveners: Andrey Vdovin**

time	[id] title	presenter
14:30	[22] Open quantum systems of atomic nuclei	Prof. XU, Furong
15:00	[42] Relativistic description of novel nuclear structure towards extremes of spin and isospin	Prof. ZHAO, Pengwei
15:30	[37] Multi-photon dynamics of non-linear quantum processes in short polarized electromagnetic pulses	Prof. TITOV, Alexander

**Modern problems in nuclear and elementary particle physics (16:30 - 18:10)****-Conveners: Furong Xu**

time	[id] title	presenter
16:30	[27] Tidal deformability of neutron stars and gravitational waves	Prof. LEE, Chang-Hwan
17:00	[3] Neutrino-Process for Core Collapse Supernova Explosion	Prof. CHEOUN, Myung-Ki
17:30	[18] Electron capture rates on neutron-rich nuclei in core-collapse supernova	Prof. VDOVIN, Andrey
17:50	[7] Effects of RPA correlations on charged-current neutrino opacities in supernova neutrino-sphere	Dr DZHIOEV, Alan

**Wednesday, 17 July 2019****Modern problems in nuclear and elementary particle physics (09:30 - 11:00)****-Conveners: Andrej Arbuzov**

time	[id] title	presenter
09:30	[29] Deeply Virtual Meson Production with CLAS and Impact on chiral-odd GPD models	Prof. KIM, Wooyoung
10:00	[20] Meson-baryon scattering in the Regge realm	Prof. YU, Byung Geel
10:30	[36] Triton binding energy and neutron-deuteron scattering up to next-to-leading order in chiral effective field theory	Dr SONG, Young-Ho

**Modern problems in nuclear and elementary particle physics (11:30 - 13:00)****-Conveners: Chang-Hwan Lee**

time	[id] title	presenter
11:30	[34] Radiative symmetry breaking in the Standard Model	Dr ARBUZOV, Andrej
12:00	[71] Decay $B_s \rightarrow K^* \mu^+ \mu^-$ in covariant confined quark model	Dr ISSADYKOV, Aidos
12:20	[25] Implementation of polarized $e^+ e^- \rightarrow \gamma \gamma$ process in MCSANC	Mr YERMOLCHYK, Vitaly
12:40	[38] The proton size puzzle: latest news	Prof. DOROKHOV, Alexander

**Modern problems in nuclear and elementary particle physics (14:30 - 16:00)****-Conveners: Seung-il Nam**

time	[id] title	presenter
14:30	[48] Phase transition between the isovector to isoscalar pairing correlations in deformed $N=Z$ nuclei	Dr HA, EUN JA
15:00	[11] Pygmy and giant dipole resonances in $^{48,50}\text{Ca}$ and $^{68,70}\text{Ni}$	Dr ARSENYEV, Nikolay
15:20	[10] Self-consistent study of isobaric analog resonances in nuclei with pairing	Dr BORZOV, Ivan
15:40	[12] Investigation of level density parameters of superheavy nuclei	Mrs BEZBAKH, Anna

**Modern problems in nuclear and elementary particle physics (16:30 - 18:00)****-Conveners: Arkadiy Taranenko**

time	[id] title	presenter
16:30	[9] QCD vacuum in nuclear matter?	Dr KIM, Youngman
17:00	[39] Stochastic hydrodynamics and long time tails under the effect of multiplicative noise	CHAO, Jingyi
17:30	[32] Transverse momentum distributions of hadrons in the Tsallis nonextensive statistics	Dr PARVAN, Alexandru

**Thursday, 18 July 2019****Modern problems in nuclear and elementary particle physics (09:30 - 11:00)****-Conveners: Leonid Kaptari**

time	[id] title	presenter
09:30	[73] Role of the $h_1(1800)$ and $f_1(1285)$ states in the $J/\psi$ decays	Dr XIE, Ju-Jun
10:00	[1] Tetraquark mixing framework for the two light-meson nonets	Prof. KIM, Hungchong
10:30	[70] DK interaction as a doorway to manifestly exotic mesons	Prof. GENG, Lisheng

**Modern problems in nuclear and elementary particle physics (11:30 - 13:00)****-Conveners: Victor Kim**

time	[id] title	presenter
11:30	[24] Modeling the gluon and ghost propagators in Landau gauge by truncated Dyson-Schwinger equations	Prof. KAPTARI, Leonid
12:00	[23] CMS upgrade plan for high-luminosity era and prospect on heavy-ion physics	Prof. HONG, Byungsik
12:30	[44] Scaling properties of azimuthal anisotropy at RHIC	Dr TARANENKO, Arkadiy

# Friday, 19 July 2019

## Modern problems in nuclear and elementary particle physics (09:30 - 12:00)

-Conveners: Yongseok Oh

time	[id] title	presenter
09:30	[14] Calculation of fission fragment mass distributions by using a semi-empirical method	Prof. HONG, Seung-Woo
10:00	[16] Studies on $\Lambda^+_c$ hadronic decays	Prof. NAM, Seung-il
10:30	[75] Spreading widths of giant dipole resonance in the lead region	Dr NAZMITDINOV, Rashid
11:00	[40] Nuclear experiments at KoBRA and Y2L in Korea	Prof. HAHN, Kevin
11:30	[62] Towards an ab initio covariant density functional for nuclear structure	Prof. MENG, Jie