New Trends in High-Energy Physics

Sunday 12 May 2019 - Saturday 18 May 2019

"Arkadia" hotel

Conference program

May 12, Sunday
11.00-22.00: Registration
16.00: Ballet "Swan Lake" by Pyotr Ilyich Tchaikovsky (Odessa Opera Theatre)

Lunch from Monday, 13 through Saturday, 18: 13.00-14.30,
dinner: 19.00-20.30 (both to be ordered in advance!)
May 13, Monday

8.00-10.00: Registration
10.00-10.15: Opening
Morning session, 10.15-12.00

NICA & FAIR
Chair: Victor Fadin

10.15-10.45 *Richard Lednicky (25+5)'*
Status of the NICA project

10.45-11.10 *Mustafa Schmidt (20+5)'*
The PANDA Experiment at FAIR

11.10-11.35 *Anton Lymanets (20+5)'*
Silicon Tracking System of the CBM Experiment at FAIR

11.35-12.00 *Aierke Rymbekova (20+5)'*
Study of polarized gluon structure of proton via prompt photon production in the SPD experiment at the NICA collider

Lunch: 13.00-14.30 (and registration, cntd.)
Afternoon session, 14.30-19.00

HEAVY NUCLEI & COLLECTIVE PROPERTIES
Chair: Jamal Jalilian-Marian

14.30-14.55 *Alejandro Ayala (20+5)'*
Superstatistics and the effective QCD phase diagram

14.55-15.20 *Grzegorz Wilk (20+5)'*
What can be deduced from the multiplicity distributions

15.20-15.45 *László P. Csernai (20+5)'*
Lambda polarization in peripheral heavy ion collisions

15.45-16.10 *Leonid Satarov (20+5)'*

Phase transitions and Bose-Einstein condensation in alpha-nucleon matter

16.10-16.30: Coffee break

Chair: László P. Csernai

16.30-16.55 *Volodymyr Vovchenko (20+5)'*
Towards equation of state of hot QCD at finite baryon density

16.55-17.20 *Anton Motornenko (20+5)'*
QCD thermodynamics from SU(3) parity doublet quark-hadron chiral model

17.20-17.45 *Michael Lublinsky (20+5)'*
Entanglement Entropy in High Energy QCD

17.45-18.10 *Vladimir Skalozub (20+5)'*
Induced color charges, effective gluon-photon-photon vertex in QGP. Application to heavy-ion collisions

18.10-18.35 *Michał Szymański (20+5)'*
Net-proton number fluctuations at the QCD critical point

19.00-22.00 Welcome party
May 14, Tuesday
Morning session (experiment) 9.00-13.00:

Chair: Alejandro Ayala

9.00-9.25 *Sergey Levonian (20+5)'*
Rho and Rho' production at HERA

9.25-9.50 *Tomas Nosek (20+5)'*
Results on Neutrino and Antineutrino Oscillations from the NOvA Experiment

9.50-10.15 *Vittorio Paolone (20+5)'*
T2K: Recent results and future plans

10.15-10.40 *Kota Ueshima (20+5)'*
KamLAND-Zen

10.40-11.05 *Tigran Rostomyan (20+5)'*
Recent results and future plans of the MUSE Collaboration

11.05-11.25: Coffee break

Chair: Kota Ueshima

11.25-11.50 *Andrzej Bożek (20+5)'*
Status and prospects of Belle II experiment

11.50-12.15 *Andrea Rappoldi (20+5)*
ICARUS: a new challenge within the Fermilab Short Baseline Neutrino Program

12.15-12.40 *Vit Vorobel (20+5)'*
Latest results from neutrino oscillation experiment Daya Bay

12.40-13.00 *Viktoriia Koriukina (15+5)'*
Eikonal Approximation in High-Energy Physics

Lunch: 13.00-14.30
Afternoon session: 14.30-16.35

Chair: Wolfgang Schäfer

14.30-14.55 *Volodymyr Aushev (20+5)'*
Heavy quark production in DIS (Charm and beauty review H1/ZEUS combined)

14.55-15.20 *Volodymyr Kotlyar (20+5)'*
Polarized charm and bottom quark production in proton-proton collisions at the LHC

15.20-15.45 *Szymon Harabasz (20+5)'*
Exploring baryon rich QCD matter with HADES and CBM

15.45-16.10 *Alexander Korchin (20+5)'*
Search for effects beyond the Standard Model in some decays of the Higgs boson

16.10-16.35 *Yury Gornushkin (20+5)'*
Experiment DsTau - study of tau neutrino production at CERN SPS

16.35-19.00: Odessa tour (sight-seeing)
Wednesday, May 15
Morning session (Theory) 9.00-13.00:

QCD&Regge
Chair: Alexander Korchin

9.00-9.25 *Maciej Trzebinski (20+5)'*
Diffractive Physics at the LHC

9.25-9.50 *Istvan Szanyi (20+5)'*
The shape of the interaction region of colliding protons in a Regge model

9.50-10.15 *Victor Fadin (20+5)'*
Regge cuts and NNLLA BFKL

10.15-10.40 *Magno Machado (20+5)'*
Investigation of soft processes within the QCD color dipole picture

10.40-11.00 *Taras Zagoskin* (15+5)'
A new concept of spin and orbital momentum operators

11.00-11.20: Coffee Break

Chair: Magno Machado

11.20-11.55 *Piotr Lebiedowicz (20+5)'*
Searching for odderon in exclusive reactions

11.55-12.20 *Jiri Prochazka (20+5)'*
Models of elastic scattering - possibilities, limitations, assumptions and open questions

12.20-12.45 *Wolfgang Schäfer* (20+5)'
Recent results on inclusive quarkonium production in pp collisions

Lunch: 13.30-14.30
Afternoon session 14.30-19.00:

LHC
Chair: Henryk Sobczuk

14.30-14.55 *Rainer Schicker (20+5)'*
Central production in proton-proton collisions in ALICE at the LHC

14.55-15.20 *Manuel Colocci (20+5)'*
Production of light (anti-)nuclei and exotica states in ALICE

15.20-15.45 *Fiorella Fionda (20+5)'*
Quarkonia measurements with the ALICE experiment at the LHC

15.45-16.10 *Katarina Krizkova-Gajdosova (20+5)'*
Collectivity in small systems with ALICE

16.10-16.30: Coffee break

Chair: Alexander Zhuk

16.30-16.55 *Dominique Dittert (20+5)'*
Electromagnetic radiation from Au+Au collisions at 2.4 GeV center of mass energy measured with HADES

16.55-17.20 *Evgeny Shulga (20+5)'*
Status and prospects of heavy-ion physics at the LHC

17.20-17.45 *Andrey Korytov (20+5)'*
Status and prospects of Higgs Physics at the LHC

17.45-18.10 *Valery Pugatch (20+5)'*
Heavy-ion and fixed-target physics in LHCb

18.10-18.35 *Charlotte Van Hulse (20+5)'*
Central exclusive production in LHCb
Evening: Students' Session (20-23):

Chair: Rainer Schicker

20.00-21.00 *Maciej Trzebinski:* The PhD Guide to the Experiments in HEP (lecture), (55+5)', followed by students' posters and/or 10 min. talks:

21.00-21.10 *Vasyl Dobishuk (10)'*
J/Psi Production in Pb-Pb Ultra-Peripheral Collisions at 5 TeV

21.10-21.20 *Oleksandr Sulima (10)'*
The nucleation of a quark gluon plasma phase (QGP)

21.20-21.30 *Ivan Redkokasha (10)'*
The nucleation of a quark gluon plasma phase (QGP)

21.30-21.40 *Volodymyr Svintozelskyi (10)'*
Glueballs on a Pomeron trajectory

21.40-21.50 *Vladyslav Zagrevskyi (10)'*
Muon g-2 Experiment at Fermilab

21.50-22.00 *Jelena Mijuskovic*

POSTERS
Serhii Koliiev
CP violation in B-meson decay

Nadiia Maslova
B meson decays

Maryna Oleksienko, Maxim Terentiev
Metastable, supercooled nuclear matter

Svetlana Lukashevich
The energy-momentum tensor for a spin 1/2 particle taking into account polarizabilities

Oleksandr Kot
Nuclear modification factors for charmonium production
May 16, Thursday
Morning session (theory) 9.00-13.00:

COSMOS
Chair: László P. Csernai

9.00-9.25 *Jamal Jalilian-Marian (20+5)'*
Scattering in high energy QCD: particle production from high to low pt and back

9.25-9.50 *Alexander Zhuk (20+5)'*
Cosmic screening of the gravitational interaction

9.50-10.15 *Ezgi Yalçınkaya (20+5)'*
Multidimensional scalar-tensor gravity: theory and experiment

10.15-10.40 *Anna Uryson (20+5)'*
Ultra-high energy cosmic rays from supermassive black holes

10.40-11.00: Coffee break

Chair: Leonid Satarov

11.00-11.25 *Ioannis Gkigkitzis (20+5)'*
Black Hole Torsion Effect and its Relation to Information

11.25-11.50 *Vladimir Burdyuzha (20+5)'*
Probable Physics of the First Parts of Second in Life of our Universe

11.50-12.15 *Ines Valino (20+5)'*
The Pierre Auger Observatory: studying the highest energy frontier

12.15-13.00 *M.I. Ryabov (40+5)'*
G. Gamow in Odessa (historical excursus)

Lunch: 13.00-14.30
Afternoon session: 14.30-17.45:

Miscellaneous
Chair: Valery Pugatch

14.30-14.55 *Dezső Horváth (20+5)'*
Tests of CPT Invariance at the Antiproton Decelerator of CERN

14.55-15.20 *Enrico Bozzo (20+5)'*
The THESEUS ESA M5 candidate mission

15.20-15.45 *Myroslav Kavatsyuk (20+5)'*
The PANDA experiment at FAIR

15.45-16.10 *Gustavo Petronilo (20+5)'*
Galilean covariance and Spin 1/2 Representations

16.10-16.30: Coffee break

Chair: Wolfgang Schäfer

16.30-16.55 *Michaela Schever (20+5)*
Status of the Jiangmen Underground Neutrino Observatory

16.55-17.20 *Alvina Burgazli (20+5)'*

Late stage Universe: cosmological models with interacting and non-interacting perfect fluids and scalar fields

17.20-17.45 *Denys Savchenko (20+5)'*
The 3.5 keV dark matter candidate line in the Milky Way

19.00-23.00: Conference dinner
May 17, Friday
Morning session 9.00-13.00:

New trends beyond the standard model
Chair: Mustafa Schmidt

9.00-9.25 *Florian Fraenkle (20+5)'*
The neutrino mass experiment KATRIN

9.25-9.50 *Matteo Sanguineti (20+5)'*
ANTARES & KM3NeT: the neutrino telescopes in the Mediterranean Sea

9.50-10.15 *Sultan Catto (20+5)'*
Octonionic Methods in Field Theory

10.15-10.40 *Vyacheslav Olyeynik (20+5)'*
On particle-like models in vacuum space-times with torsion and nonmetricity tensors

10-40-11:05 *Tetiana Obikhod (20+5)'*
Computer modeling of the production mode of MSSM Higgs boson

11.05-11.25: Coffee break

Chair: Ezgi Yalçınkaya

11.25-11.50 *Oleksandr Kovalenko (20+5)'*
Neutral meson measurements with the ALICE experiment

11.50-12.15 *Valentina Sola (20+5)'*
Precise timing measurement for the CMS upgrade and beyond

12.15-12.40 *Volodymyr Gorkavenko (20+5)'*
SHiP: Search for Hidden Particles

Lunch: 13.00-14.30

Afrernoon:14.30-16.30:

Chair: Sultan Catto

14.30-14.55 *Bertrand Laforge (25+5)'*
Dark matter searches at the LHC

15.00-15.25 *Oleg Kuprash (20+5)'*
Study of the hard double-parton scattering contribution to inclusive four-lepton production in pp collisions at 8 TeV with the ATLAS detector

15.25-15.50 *Pavlo Minaiev (20+5)'*
The electroweak phase transition in spontaneously magnetized plasma

15.50-16.15 *Yaroslav Klopot (20+5)'*
Non-Abelian axal anomaly, low energy theorem and decays of pseudoscalar mesons

17-19: Tasting local wines
May 18, Saturday
Morning session: 9.00-12.00

Chair: L. Jenkovszky & R. Schicker

9.00-9.25 *Krzysztof Ciesla (20+5)'*
On the Centrality Determination with Forward Proton Detectors

9.25-9.50 *Dmytro Ptashynskyi (20+5)'*
Multi-particle fields on a subset of simultaneity

11.10-11.30: Round-table discussion on new trends in high-energy physics
11.30-12.00: Closing

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