

## **Session Program**

**12-24 Aug 2018**



# **XIV-th International School-Conference "Actual Problems of Microworld Physics"**

## ***Lectures***

Belarus, Grodno region  
Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/  
glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

# Monday 13 August

11:30

## Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

11:30-12:15

### Modern heavy ion accelerator facilities in JINR and worldwide

**Speaker**

Boris Sharkov

12:15-13:00

### Femtoscscopy of Heavy Ion Collisions

**Speaker**

Richard Lednicky

13:00

14:00

## Lectures: General session

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

14:00-14:50

### Electromagnetic dipole moment and time reversal invariant interactions for high energy charged baryons in bent crystals at LHC

**Speaker**

Vladimir Baryshevsky

14:50-15:40

### Detecting materials for HEP applications: future of inorganic scintillators

**Speaker**

Mikhail Korjik

15:40-16:10

### Break

16:10-17:00

### Conceptual project of a Research Centre for Proton Therapy at JINR

**Speaker**

Nikolai Rusakovich

18:00

## Tuesday 14 August

09:30

### Lectures: Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30–11:00

#### Selected physics results from CMS

**Speaker**

Wolfgang Friedrich Lohmann

11:00–11:20

#### Break

11:20–13:00

#### Searching for exotic phenomena with the ATLAS detector

**Speaker**

Spyridon Argyropoulos

13:00

14:00

### Lectures: Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

14:00–14:45

#### Quantum field theory in strong external fields at high densities and temperatures (Part 1)

**Speaker**

Yurii Sitenko

14:45–15:30

#### Nonperturbative effects for some model of quantum fields

**Speaker**

Ilya Feranchuk

15:30–15:50

#### Break

15:50–16:35

#### The Nonperturbative laws of QCD in Experiments (Part 1)

**Speaker**

Stepan Shimanskiy

16:35–17:10

#### Instantons in Quantum Mechanics and Quantum Field Theory

**Speaker**

Roman Shulyakovsky

17:10–18:00

#### Classical and quantum dynamics of twisted (vortex) electron beams in electric and magnetic fields

**Speaker**

Alexander Silenko

18:30

# Wednesday 15 August

09:30

## Lectures: Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30–10:15

### The area of high radiation technologies on the basis of the accelerator complex NICA

**Speaker**

Sergey Tiutiunnikov

10:15–11:00

### Search for QGP at NICA project

**Speaker**

Oleg Rogachevskiy

11:00–11:15

### Break

11:15–12:00

### MPD TPC status

**Speaker**

Sergei Movchan

12:00–12:30

### Modular testing system for detectors and front-end electronics

**Speaker**

Vadim Bayev

13:00

14:00

## Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

14:00–14:45

### Quantum field theory in strong external fields at high densities and temperatures (Part 2)

**Speaker**

Yurii Sitenko

14:45–15:30

### The Nonperturbative laws of QCD in Experiments (Part 2)

**Speaker**

Stepan Shimanskiy

15:30–15:50

### Break

15:50

# Thursday 16 August

09:30

## Lectures: Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30–10:15

### Luminosity measurement at colliders

**Speaker**

Wolfgang Friedrich Lohmann

10:15–11:00

### First results on high-precision constraints on Z-Z' mixing with ATLAS and CMS diboson production data at the LHC at 13 TeV and predictions for RUN II

**Speaker**

Alexander Pankov

11:00–11:20

### Break

11:20–12:10

### Physics with tau-leptons

**Speaker**

Wolfgang Friedrich Lohmann

12:10–13:00

### Diffraction at the LHC: Results and Problems

**Speaker**

Vladimir Petrov

13:00

14:00

## Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

14:00–14:45

### Quantum field theory in strong external fields at high densities and temperatures (Part 3)

**Speaker**

Yurii Sitenko

14:45–15:45

### Measurability Conception for Quantum Theory, Gravity and Thermodynamics. Some Basic Results and Application

**Speaker**

Alexander Shalyt-Margolin

15:45–16:00

### Break

16:00

# Friday 17 August

09:30

## Lectures

### Session |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30–10:15

### The model of hadrons and problem of the multi-particles production

#### Speaker

Yurii Kurochkin

10:15–11:00

### Fundamental and applied aspects of high energy particle interaction with oriented crystals

#### Speaker

Victor Tikhomirov

11:00–11:20

### Break

11:20–12:15

### Bound on a diffuse flux of ultra-high energy neutrinos in the ADD model

#### Speaker

Alexandre Kisselev

12:15–12:50

### High-precision numerical estimates of Mellin-Barnes integrals using a stationary phase contour

#### Speaker

Olga Solovtsova

13:00

## Saturday 18 August

09:30

### Lectures

**Session** |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30–10:15

**CMS Endcap Calorimeter Upgrade****Speaker**

Pawel De Barbaro

10:15–10:35

**Space anisotropy search at colliders****Speaker**

Danila Tlisov

10:35–11:15

**A look at hadronization via high multiplicity****Speaker**

Elena Kokoulina

11:15–11:30

**Break**

11:30

# Monday 20 August

09:30

## Lectures

### Session |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30–10:15

### Higgs boson searches (Part 1)

#### Speaker

Tomas Davidek

10:15–10:40

### Design and construction of neutrino detector for BeINPP

#### Speaker

Valentin Gilewsky

11:00–11:20

### Break

11:20–12:50

### W physics in ATLAS

#### Speaker

Fabrice Balli

13:00



## Tuesday 21 August

09:30

### Lectures

#### Session |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30–10:15

#### Higgs boson searches (Part 2)

##### Speaker

Tomas Davidek

10:15–10:45

#### Search for short strings in $e^+e^-$ -annihilation

##### Speaker

Marina Kozhevnikova

11:00–11:30

#### Break

11:30–12:15

#### Solar flares and related phenomena

##### Speakers

Oleg Boyarkin, Galina Boyarkina

12:15–13:00

#### The odderon: myths and reality

##### Speaker

Laszlo Jenkovszky

13:00

# Wednesday 22 August

09:30

## Lectures

### Session |

**Location:** Belarus, Grodno region, Sanatorium "Ozerny", 231753, Grodno region, p/o Ozery, Belarus Hotel website: [http://ozerny.by/glavnaya\\_en/](http://ozerny.by/glavnaya_en/)

09:30-10:15

### Higgs boson searches (Part 3)

#### Speaker

Tomas Davidek

10:15-11:00

### Integral luminosity measurement at future e+e- colliders - feasibility and challenges

#### Speaker

Ivanka Bozovic-Jelisavcic

11:00-11:20

### Break

11:20-11:55

### Study of effects Colour Reconnections for WW, tt and Higgs events on FCC

#### Speaker

Nelli Pukhaeva

11:55-12:30

### Measurements of the inclusive jet production cross-section in association with a Z-boson in pp collisions at 8 TeV using the ATLAS detector

#### Speaker

Aliaksei Hrynevich

12:30-13:00

### Measurements of the Drell-Yan Forward-Backward Asymmetry in pp Collisions at the CMS

#### Speaker

Uladzislava Yevarouskaya

13:00