Session Program

June 1, 2019 to September 30, 2019

Student's Zone 2019 of the NICA Project

Presentations of topics

JINR DUBNA, B: 215; room 327
Joliot Curie 6

Mon, July 1

11:00 AM

Presentations of topics: Part I

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

11:00 – 11:10 AM

Non-organic surface modification with the solid state particle removal.

Speaker
Mr Krystian Roslon

11:10 – 11:20 AM

Integration of temperature monitoring software inside RACK Master and Slave 19 "cabinets for the Slow Control System for the TOF-MPD detector

Speaker
Mr Krystian Roslon

11:20 – 11:30 AM

Android application for monitoring data from the Slow Control System for the TOF-MPD detector

Speaker
Mr Krystian Roslon

11:30 – 11:40 AM

Modeling of K+K- fermtoscopic correlations in p+Pb collision using the Therminator2 model

Speaker
Mr Krystian Roslon

11:40 – 11:50 AM **Image taken by Fluke TiS20 visualization by LabVIEW**

Speaker
Mr Krystian Roslon

11:50 AM – 12:00 PM

Development of software for monitoring temperature inside the MPD-TOF detector

Speaker
Mr Krystian Roslon

12:00 PM

1:00 PM

Presentations of topics: Part II

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

1:00 – 1:10 PM

Model of the MPD Multi-Detector prepared with a 3D printing method

Speaker
Daniel Dabrowski

1:10 – 1:20 PM

Development of the PLC controller software for the Mixer module of the MPD/TOF Gas System

Speaker
Daniel Dabrowski

1:20 – 1:30 PM
Development of the data logging, archiving and exporting to database parameters of the MPD/TOF Gas System control software

Speaker
Daniel Dabrowski

1:30 – 1:40 PM
Simulation of the MPD/TOF Gas System operation in the Fluidsim environment

Speaker
Daniel Dabrowski

1:40 – 1:50 PM
Mobile application for the MPD/TOF Gas System monitoring

Speaker
Daniel Dabrowski

1:50 – 2:00 PM
Development of the SCADA software for MPD/TOF Gas System in the Simens WinCC

Speaker
Daniel Dabrowski

2:00 – 2:10 PM
Gas Supply project for the MPD/TOF Gas System

Speaker
Daniel Dabrowski

2:10 – 2:20 PM
Development of the PLC controller software for the Recirculation module of the MPD/TOF Gas System

Speaker
Daniel Dabrowski

2:20 – 2:30 PM
Studies of the MPD/TOF detector efficiency and time resolution for varying gas mixture components concentration.

Speaker
Daniel Dabrowski

2:30 – 2:40 PM
Pressure transmitters, mass flow controllers and control valves calibration and preparation for operation

Speaker
Daniel Dabrowski

2:40 – 2:50 PM
Emergency situations testing and error handling of the MPD/TOF Gas System control software

Speaker
Daniel Dabrowski

3:00 PM

Tue, July 2

9:30 AM

Presentations of topics: Part III

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

9:30 – 9:40 AM **NICA-MPD-PLATFORM (NMP)**

Speaker
Mr Marek Peryt

9:40 – 9:50 AM **NMP IPD Intelligent Power Distributor**

Speaker
Mr Marek Peryt

9:50 – 10:00 AM **NMP SCADA WinCC**

Speaker
Mr Marek Peryt

10:00 – 10:10 AM **NMP Temperature monitoring**

Speaker
Mr Marek Peryt

10:10 – 10:20 AM **NMP Access Control**

Speaker
Mr Marek Peryt

10:20 – 10:30 AM **NMP InteliPhy**

Speaker
Mr Marek Peryt

10:30 AM

11:00 AM

Presentations of topics: Part IV

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

11:00 – 11:10 AM **Heat transfer simulation of the MPD-TOF detector**

Speakers
Mr Krystian Roslon, Maciej Czarnynoga

11:10 – 11:20 AM **Heat transfer simulation of the MPD-TPC detector**

Speakers
Mr Krystian Roslon, Maciej Czarnynoga

11:20 – 11:30 AM **Heat transfer simulation of the MPD-ITS detector**

Speakers
Mr Krystian Roslon, Maciej Czarnynoga

11:30 – 11:40 AM

Heat transfer simulations for the PXI module and the CAEN module

Speaker
Maciej Czarnynoga

11:40 – 11:50 AM

Design and heat transfer simulations for the TOF_MPD detector cooling systemDesign and heat transfer simulations for the tof-mpd detector cooling system

Speaker
Maciej Czarnynoga

11:50 AM – 12:00 PM **NMP Grounding monitoring**

Speaker
Mr Marek Peryt

12:00 – 12:10 PM **NMP Configurable screen for the control room.**

Speaker
Mr Marek Peryt

12:10 – 12:20 PM **NMP Alpha, beta, gamma monitoring**

Speaker
Mr Marek Peryt

12:20 – 12:30 PM **NMP Monitoring of the Earth's magnetic field**

Speaker
Mr Marek Peryt

12:30 PM

1:30 PM

Presentations of topics: PART V

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

1:30 – 1:40 PM **Drive x, y, z.**

Speaker
Mr Marek Peryt

1:40 – 1:50 PM **EqDb Equipment Database.**

Speaker
Mr Marek Peryt

1:50 – 2:00 PM **Drive r, φ.**

Speaker
Mr Marek Peryt

2:00 – 2:10 PM **Laboratory infrastructure**

Speaker
Mr Marek Peryt

2:10 – 2:20 PM **NMP Cable tester**

Speaker
Mr Marek Peryt

2:20 – 2:30 PM **NMP GPS Synchronization**

Speaker
Mr Marek Peryt

Subcontributions

Part I

Speaker
Mr Marek Peryt

3:00 PM

2:30 – 2:40 PM **NMP Environmental monitoring MPD**

Speaker
Mr Marek Peryt

Wed, July 3

9:30 AM

Presentations of topics: PART VI

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

9:30 – 9:40 AM **TPC detector construction**

Speaker
Sergey Aleksandrovich Movchan

9:40 – 10:30 AM **TPC read-out chambers development**

Speaker
Sergey Aleksandrovich Movchan

12:00 PM

1:00 PM

Presentations of topics: Part VII

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

3:00 PM

Thu, July 4

9:30 AM

Presentations of topics: Part VIII

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

9:30 – 9:40 AM **Management of large-scale physics simulations**

Speaker
Adam Kisiel

9:40 – 9:50 AM
Analysis of tracking efficiency and momentum resolution for MPDRoot

Speaker
Adam Kisiel

9:50 – 10:00 AM **Collaboration tools for MPD**

Speaker
Adam Kisiel

10:00 – 10:10 AM
Feasibility studies of baryon correlations in the MPD experiment at the NICA complex

Speaker
Adam Kisiel

10:10 – 10:20 AM **Generation of large vHELLE datasamples with MPDRoot**

Speaker
Adam Kisiel

10:20 – 10:30 AM **Generation of large UrQMD Monte-Carlo datasample with MPDRoot**

Speaker
Adam Kisiel

10:30 AM

11:00 AM

Presentations of topics: Part IX

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

11:00 – 11:40 AM **Inner tracker development**

Speaker
Yuriy Andreevich Murin

11:40 – 11:50 AM **Software development for MPD**

Speaker
Yuriy Konstantinovich Potryebennikov

11:50 AM – 12:00 PM **Setup of the NICA computing cluster**

Speaker
Yuriy Konstantinovich Potrebyennikov

12:00 – 12:30 PM

Cosmic ray measurements - using those detectors in huge physical experiments as LHC or NICA.

Speaker
Marcin Bielewicz

12:30 PM

1:30 PM

Presentations of topics: Part XII

Session | **Location:** JINR DUBNA, B: 215; room 327, Joliot Curie 6

1:30 – 1:40 PM **Group collaboration tools for the software of MPD**

Speaker
Oleg Vasilievich Rogachevsky`

1:40 – 1:50 PM **Model of the MPD detector**

Speaker
Bartłomiej Juruć

1:50 – 2:00 PM

Installation and implementation of JIRA and Confluence ATLASSIAN platforms for the Engineering Support for NICA Group.

Speaker
Mr Marek Peryt

2:00 – 2:10 PM

Automatic, multipoint, high precision system for temperature measurement.

Speaker
Marcin Bielewicz

2:10 – 2:25 PM

Experimental measurement of the level of transmutation and neutron flux density in subcritical nuclear reactors ADS.

Speaker
Marcin Bielewicz

5:10 PM