### 14th Collaboration Meeting of the BM@N Experiment at NICA



### Report of Contributions

Contribution ID: 135 Type: not specified

#### **Welcome and Opening (the JINR Directorate)**

Tuesday 13 May 2025 10:00 (5 minutes)

**Presenter:** KEKELIDZE, Vladimir (LHEP, JINR)

Session Classification: Plenary

May 18, 2025

Contribution ID: 136 Type: not specified

#### Status of the BM@N experiment

Tuesday 13 May 2025 10:05 (20 minutes)

Presenter: LEDNICKY, Richard (JINR Dubna)

Session Classification: Plenary

Contribution ID: 137 Type: not specified

#### Status of the BM@N detector

Tuesday 13 May 2025 10:25 (25 minutes)

Presenter: PIYADIN, Semen

Session Classification: Plenary

Contribution ID: 138 Type: not specified

#### Status of hyperon analysis in Run 8

Tuesday 13 May 2025 11:30 (35 minutes)

**Presenter:** ZINCHENKO, Alexander (Joint Institute for Nuclear Research)

Session Classification: Analysis meeting

Contribution ID: 139 Type: not specified

# Production of Lambda hyperons in 4.0 AGeV and 4.5 AGeV carbon-nucleus interactions at the Nuclotron

Tuesday 13 May 2025 12:05 (25 minutes)

Presenter: ALISHINA, Ksenia (Russia)

Session Classification: Analysis meeting

Contribution ID: 140 Type: not specified

# Study of neutron emission from target spectators in Xe + CsI collisions at 3.8 A GeV with a compact TOF spectrometer

Tuesday 13 May 2025 12:30 (25 minutes)

**Presenter:** LASHMANOV, Nikita (Joint Institute for Nuclear Research)

Session Classification: Analysis meeting

Contribution ID: 141 Type: not specified

# Why is it interesting to study central collisions of heavy projectiles with light targets at the BM@N?

Tuesday 13 May 2025 14:00 (25 minutes)

Presenter: PSHENICHNOV, Igor (Institute for Nuclear Research, Russian Academy of Sciences)

Session Classification: Analysis meeting

Contribution ID: 142 Type: not specified

#### Status of baryon femtoscopy in Ar run

Tuesday 13 May 2025 14:25 (20 minutes)

**Author:** ALEKSEEV, Petr

**Presenter:** ALEKSEEV, Petr

Session Classification: Analysis meeting

Contribution ID: 143 Type: not specified

## Status of hypernuclei signal reconstruction in Xe+Csl Collisions in the BM@N experiment

Tuesday 13 May 2025 14:45 (25 minutes)

Presenter: MERTS, Sergei (JINR, LHEP)

Session Classification: Analysis meeting

Contribution ID: 144 Type: not specified

# Status of phi-meson signal reconstruction in Xe+Csl collisions in the BM@N experiment

Tuesday 13 May 2025 15:10 (20 minutes)

**Presenter:** BARAK, Ramin (VBLHEP JINR)

Session Classification: Analysis meeting

Contribution ID: 145 Type: not specified

### Bayesian approach for centrality determination in nucleus-nucleus collisions at the BM@N experiment

Wednesday 14 May 2025 14:00 (20 minutes)

Presenter: IDRISOV, Dim

Session Classification: Analysis meeting

Contribution ID: 146 Type: not specified

#### Updates on the directed flow of charged hadrons

Wednesday 14 May 2025 14:20 (30 minutes)

**Presenter:** MAMAEV, Mikhail (NRNU MEPhI)

Session Classification: Analysis meeting

Contribution ID: 147 Type: not specified

#### Quality Assurance in Xe+Csl run

Wednesday 14 May 2025 14:50 (15 minutes)

**Presenter:** DEMANOV, Alexander

Session Classification: Analysis meeting

Contribution ID: 148 Type: not specified

# Status and plans of software development for forward detectors

Wednesday 14 May 2025 15:05 (20 minutes)

**Presenter:** KARPUSHKIN, Nikolay (INR RAS)

**Session Classification:** Analysis meeting

Contribution ID: 149 Type: not specified

# Status of analysis of charged fragments production measured with ScWall in Xe+CsI reaction at 3.8 A GeV

Wednesday 14 May 2025 16:05 (20 minutes)

**Presenter:** VOLKOV, Vadim (INR RAS)

Session Classification: Analysis meeting

Contribution ID: 150 Type: not specified

# Development of cluster method for neutron identification and energy determination with the HGND

Wednesday 14 May 2025 16:45 (20 minutes)

Presenter: SHABANOV, Arseniy (INR RAS)

Session Classification: Analysis meeting

Contribution ID: 151 Type: not specified

### Analysis of neutron yields in the Xe+CsI reaction at 3.8 AGeV measured by the HGND prototype

Wednesday 14 May 2025 16:25 (20 minutes)

Presenter: ZUBANKOV, Aleksandr (Institute for Nuclear Research of the Russian Academy of Sci-

ences)

Session Classification: Analysis meeting

Contribution ID: 152 Type: not specified

# Graph Neural Network-based Neutron Reconstruction in the HGND at the BM@N experiment

Wednesday 14 May 2025 17:05 (20 minutes)

Presenter: BOCHARNIKOV, Vladimir (HSE University)

**Session Classification:** Analysis meeting

Contribution ID: 153 Type: not specified

#### Upgrade of the trigger detectors

Wednesday 14 May 2025 09:30 (15 minutes)

**Presenter:** VELICHKOV, Valyo

Session Classification: Detector meeting

Contribution ID: 154 Type: not specified

#### Status of the trigger system

Wednesday 14 May 2025 09:45 (15 minutes)

**Presenter:** SEDYKH, Sergey

Session Classification: Detector meeting

Contribution ID: 155 Type: not specified

#### Status of the first Si-plane based on STS modules

Wednesday 14 May 2025 10:00 (20 minutes)

**Presenter:** DEMENTEV, Dmitrii (JINR LHEP)

Session Classification: Detector meeting

Contribution ID: 156 Type: not specified

# Waiting for the beam of relativistic nuclei (124Xe) at BM@N

Wednesday 14 May 2025 10:20 (20 minutes)

Presenter: ZAMYATIN, Nikolay (JINR)

Session Classification: Detector meeting

Contribution ID: 157 Type: not specified

#### Profilometer of the beam for BM@N

Wednesday 14 May 2025 11:10 (20 minutes)

**Presenter:** CHEMEZOV, Danil (VBLHEP JINR)

Session Classification: Detector meeting

Contribution ID: 158 Type: not specified

### Preparation of forward detectors to forthcoming beam run

Wednesday 14 May 2025 11:30 (20 minutes)

**Presenter:** MOROZOV, Sergey (Institute for Nuclear Research RAS)

Session Classification: Detector meeting

Contribution ID: 159 Type: not specified

# Status of the HGND mechanics assembly and tests of the full scale HGND scintillation layer

Wednesday 14 May 2025 11:50 (20 minutes)

**Presenter:** MAKHNEV, Aleksandr (INR of RAS)

Session Classification: Detector meeting

Contribution ID: 160 Type: not specified

#### Status of the HGND DAQ tests

Wednesday 14 May 2025 12:10 (20 minutes)

**Presenter:** FINOGEEV, Dmitry (INR RAS)

Session Classification: Detector meeting

Contribution ID: 161

## Status of TOF systems: Data reconstruction and preparation for future run

Wednesday 14 May 2025 15:50 (15 minutes)

Status of TOF systems: Data recon...

Type: not specified

**Presenter:** RUMYANTSEV, Mikhail (JINR)

Session Classification: Analysis meeting

Contribution ID: 162 Type: not specified

#### **Status of the Slow Control System**

Wednesday 14 May 2025 12:30 (20 minutes)

Presenter: OSOKIN, Ilya (JINR)

Session Classification: Detector meeting

Contribution ID: 163 Type: not specified

#### BM@N DAQ Data Centre

Thursday 15 May 2025 10:45 (15 minutes)

**Presenter:** SLEPNEV, Ilya (JINR LHEP)

Session Classification: Software meeting

Contribution ID: 164 Type: not specified

#### Status of the raw data decoder and online QA

Thursday 15 May 2025 09:30 (25 minutes)

**Presenter:** GABDRAKHMANOV, Ilnur (JINR VBLHEP)

Session Classification: Software meeting

Contribution ID: 165 Type: not specified

## Geometry of hybrid tracker in the BM@N experiment for RUN 9

Thursday 15 May 2025 10:15 (15 minutes)

**Presenter:** BARANOV, Dmitriy (JINR)

Session Classification: Software meeting

Contribution ID: 166 Type: not specified

# Airflow automation of online data processing for BM@N Run 9

Thursday 15 May 2025 11:30 (15 minutes)

Presenter: ILYIN, Nikita

**Session Classification:** Software meeting

Contribution ID: 167 Type: not specified

## Development of a virtual assistant for shift operators of the BM@N experiment

Thursday 15 May 2025 10:30 (15 minutes)

Presenter: ROMANOV, Ilya (JINR)

Session Classification: Software meeting

Contribution ID: 168 Type: not specified

# Preparation of DIRAC distributed computing infrastructure for BM@N Run 9

Thursday 15 May 2025 11:45 (20 minutes)

**Presenter:** PELEVANYUK, Igor (Joint Institute for Nuclear Research)

Session Classification: Software meeting

Contribution ID: 169 Type: not specified

# Using containerization for BM@N distributed data processing

Thursday 15 May 2025 12:05 (15 minutes)

Presenter: NIZAMOV, Rinat (SPBU)

Session Classification: Software meeting

Contribution ID: 170 Type: not specified

### Data Management System based on the DIRAC File Catalog for BM@N

Thursday 15 May 2025 12:20 (20 minutes)

**Presenter:** ZHIRONKIN, Igor (Sergeevich)

Session Classification: Software meeting

Contribution ID: 171 Type: not specified

## Design of the Data Quality Monitoring system for the BM@N experiment

Thursday 15 May 2025 09:55 (20 minutes)

**Presenter:** ALEXANDROV, Igor (JINR)

Session Classification: Software meeting

Contribution ID: 172 Type: not specified

# Application of machine learning for particle tracking in BM@N

Thursday 15 May 2025 14:25 (15 minutes)

Presenter: ALEKSANDROV, Anatoly (SPBU)

Session Classification: Software meeting

Contribution ID: 173 Type: not specified

# Development of new Event Display and auxiliary software for BM@N experiment

Thursday 15 May 2025 14:00 (25 minutes)

**Presenter:** DUNAEV, Igor (MIPT)

Session Classification: Software meeting

Contribution ID: 174 Type: not specified

# Integration Geometry and Configuration Information Systems into BM@N data processing

Thursday 15 May 2025 12:40 (20 minutes)

**Presenter:** Mr ALEXANDROV, Evgeny (JINR)

Session Classification: Software meeting

Contribution ID: 175 Type: not specified

### Status of the BM@N software infrastructure and future plans

Thursday 15 May 2025 14:40 (15 minutes)

Presenter: CHEBOTOV, Alexander (JINR)

Session Classification: Software meeting

Contribution ID: 176 Type: not specified

#### BM@N Software Readiness for Run 9

Thursday 15 May 2025 14:55 (35 minutes)

**Presenter:** GERTSENBERGER, Konstantin (JINR)

Session Classification: Software meeting

Contribution ID: 177 Type: not specified

### On the measurement of the Xe+CsI inelastic cross section

Tuesday 13 May 2025 15:30 (15 minutes)

Presenter: KAPISHIN, Mikhail (JINR, LHEP)

Session Classification: Analysis meeting