

# **12th Collaboration Meeting of the BM@N Experiment at the NICA Facility**

## **Report of Contributions**

Contribution ID: 1

Type: **not specified**

## Status of the BM@N experiment

*Monday, May 13, 2024 10:00 AM (30 minutes)*

**Presenter:** KAPISHIN, Mikhail (JINR, LHEP)

**Session Classification:** Plenary

Contribution ID: 2

Type: **not specified**

## **Detectors in the Xe run and plans**

*Monday, May 13, 2024 10:30 AM (25 minutes)*

**Presenter:** PIYADIN, Semen (JINR)

**Session Classification:** Plenary

Contribution ID: 3

Type: **not specified**

## **Status of the Booster and Nuclotron (Zoom)**

*Monday, May 13, 2024 10:55 AM (25 minutes)*

**Presenter:** VALERY, Lebedev (JINR)

**Session Classification:** Plenary

Contribution ID: **109**

Type: **not specified**

## Welcome

*Monday, May 13, 2024 9:50 AM (10 minutes)*

**Presenter:** YERMEKBAYEV, Samgat (Satbayev University)

Contribution ID: **110**

Type: **not specified**

## **Dinner**

Contribution ID: **111**

Type: **not specified**

## **Status of the trigger system**

*Tuesday, May 14, 2024 10:00 AM (20 minutes)*

**Presenter:** SEDYKH, Sergey

**Session Classification:** Detector meeting

Contribution ID: 112

Type: **not specified**

## Upgrade of the trigger electronics

*Tuesday, May 14, 2024 10:20 AM (20 minutes)*

**Presenter:** ROGOV, Victor (JINR)

**Session Classification:** Detector meeting



Contribution ID: **113**

Type: **not specified**

## **Beam tracker (via ZOOM)**

*Tuesday, May 14, 2024 10:40 AM (20 minutes)*

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

**Session Classification:** Detector meeting

Contribution ID: **114**

Type: **not specified**

## **Forward Silicon Tracker status (in Russian)**

*Tuesday, May 14, 2024 11:00 AM (20 minutes)*

**Presenter:** TARASOV, Oleg (JINR Dubna, Moscow Region, Russia)

**Session Classification:** Detector meeting

Contribution ID: 115

Type: **not specified**

## **Status of the GEM and CSC systems**

*Tuesday, May 14, 2024 11:40 AM (20 minutes)*

**Presenter:** KULISH, Elena (JINR)

**Session Classification:** Detector meeting

Contribution ID: **116**

Type: **not specified**

## **Performance of the TOF400 system in Xe run**

**Presenter:** Mr RUMYANTSEV, Michael (JINR)

**Session Classification:** Detector meeting

Contribution ID: **117**

Type: **not specified**

## **Si-station based on STS modules**

*Tuesday, May 14, 2024 12:00 PM (20 minutes)*

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

**Session Classification:** Detector meeting

Contribution ID: **118**

Type: **not specified**

## **Exploiting the tagging of projectile light fragments at BM@N**

*Tuesday, May 14, 2024 12:20 PM (20 minutes)*

**Presenter:** REYES PEÑA, Solné (Joint Institute for Nuclear Research)

**Session Classification:** Detector meeting

Contribution ID: 119

Type: **not specified**

## **High-Granular Time-of-Flight Neutron Detector HGND for the BM@N experiment**

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

**Session Classification:** Detector meeting

Contribution ID: 120

Type: **not specified**

## **Mechanical design, front-end electronics and integration of the HGND readout into the B@MN experiment data acquisition system**

**Presenters:** FINOGEEV, Dmitry (INR RAS); MAKHNEV, Aleksandr (INR of RAS)

**Session Classification:** Detector meeting



Contribution ID: 121

Type: **not specified**

## **Test of the ECAL modules as gamma protection for the neutron detector**

*Tuesday, May 14, 2024 12:40 PM (20 minutes)*

**Presenter:** AFANASIEV, Sergei (JINR)

**Session Classification:** Detector meeting

Contribution ID: 122

Type: **not specified**

## What the AI can do for us

*Thursday, May 16, 2024 9:15 AM (20 minutes)*

**Presenter:** RATNIKOV, Fedor

**Session Classification:** Software meeting

Contribution ID: 123

Type: **not specified**

## **BM@N Software Progress and Current Issues**

*Thursday, May 16, 2024 9:35 AM (20 minutes)*

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

**Session Classification:** Software meeting

Contribution ID: 124

Type: **not specified**

## **Software contribution from MIPT: Development of software systems for BM@N**

*Thursday, May 16, 2024 9:55 AM (15 minutes)*

**Presenter:** OLGA, Nemova (MIPT)

**Session Classification:** Software meeting

Contribution ID: 125

Type: **not specified**

## **Contribution of the St. Petersburg University group to the development of software for the BM@N experiment**

*Thursday, May 16, 2024 10:10 AM (15 minutes)*

**Presenter:** NEMNYUGIN, Sergei (Saint-Petersburg State University)

**Session Classification:** Software meeting

Contribution ID: 126

Type: **not specified**

## **Automated BM@N Software Distribution and Testing: Current Status**

*Thursday, May 16, 2024 10:25 AM (15 minutes)*

**Presenters:** BALASHOV, Nikita (JINR); Mr БАЛАШОВ, Никита (JINR)

**Session Classification:** Software meeting

Contribution ID: 127

Type: **not specified**

## **Storage Service for Scientific Documentation**

*Thursday, May 16, 2024 10:40 AM (15 minutes)*

**Presenter:** SOKOLOV, Ivan (JINR)

**Session Classification:** Software meeting

Contribution ID: 128

Type: **not specified**

## **BM@N distributed computing status and analytics**

*Thursday, May 16, 2024 11:30 AM (15 minutes)*

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

**Session Classification:** Software meeting



Contribution ID: 129

Type: **not specified**

## **Integration of the DIRAC File Catalogue for the BM@N experiment (via ZOOM)**

*Thursday, May 16, 2024 11:45 AM (15 minutes)*

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

**Session Classification:** Software meeting

Contribution ID: 130

Type: **not specified**

## **Production of the Configuration Information system for the BM@N experiment**

*Thursday, May 16, 2024 10:55 AM (15 minutes)*

**Presenter:** АЛЕКСАНДРОВ, Игорь (JINR)

**Session Classification:** Software meeting

Contribution ID: 131

Type: **not specified**

## **Production version of BM@N Geometry Database**

*Thursday, May 16, 2024 12:30 PM (15 minutes)*

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

**Session Classification:** Software meeting

Contribution ID: 132

Type: **not specified**

## **Status of the geometry alignment for BM@N inner tracker system (via ZOOM)**

*Thursday, May 16, 2024 12:45 PM (15 minutes)*

**Presenter:** SHARIPOV, Zarif (JINR)

**Session Classification:** Software meeting

Contribution ID: 133

Type: **not specified**

## **Improvement of Information Systems and Services for the BM@N experiment**

**Presenter:** Mr CHEBOTOV, Alexander (JINR)

**Session Classification:** Software meeting

Contribution ID: 134

Type: **not specified**

## On the paper draft "Production of p,d,t in agron-nucleous interactions at 3.2 AGeV"

*Monday, May 13, 2024 11:45 AM (25 minutes)*

**Presenter:** KOVACHEV, Lalyo (Dimitrov)

**Session Classification:** Analysis meeting

Contribution ID: 135

Type: **not specified**

## **BM&N results on light nuclei and prospects for the study of the production of composite nuclear fragments at NICA energies**

*Monday, May 13, 2024 12:10 PM (30 minutes)*

**Presenter:** KOLESNIKOV, Vadim (VBLHEP, JINR)

**Session Classification:** Analysis meeting

Contribution ID: 136

Type: **not specified**

## Status of p-d femtoscopy

*Monday, May 13, 2024 12:40 PM (25 minutes)*

**Presenter:** ALEKSEEV, Petr (JINR, KI)

**Session Classification:** Analysis meeting



Contribution ID: 137

Type: **not specified**

## **Analysis of data on $\Lambda$ and $K_s$ production**

*Monday, May 13, 2024 2:25 PM (30 minutes)*

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

**Session Classification:** Analysis meeting

Contribution ID: 138

Type: **not specified**

## **Anisotropic flow measurements in the recent Xe+Cs(I) run**

*Monday, May 13, 2024 2:55 PM (30 minutes)*

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

**Session Classification:** Analysis meeting

Contribution ID: **139**

Type: **not specified**

## **Modification of DCM-QGSM-SMM**

*Monday, May 13, 2024 3:25 PM (20 minutes)*

**Presenter:** Dr MUSULMANBEKOV, Genis (JINR, LIT)

**Session Classification:** Analysis meeting

Contribution ID: 140

Type: **not specified**

## **Study of $\Lambda$ -hyperon production in carbon collisions with solid targets (Run6)**

*Tuesday, May 14, 2024 2:20 PM (20 minutes)*

**Presenter:** ALISHINA, Ksenia (Russia)

**Session Classification:** Analysis meeting

Contribution ID: 141

Type: **not specified**

## **Anisotropic flow measurements at Nuclotron-NICA and equation of State**

*Tuesday, May 14, 2024 2:40 PM (25 minutes)*

**Presenter:** PARFENOV, Peter (JINR)

**Session Classification:** Analysis meeting

Contribution ID: 142

Type: **not specified**

## **Review of methods for measuring collective fluxes and global polarization of lambda hyperons**

*Tuesday, May 14, 2024 3:05 PM (20 minutes)*

**Presenter:** TROSHIN, Valery (JINR)

**Session Classification:** Analysis meeting

Contribution ID: 143

Type: **not specified**

## **Measurement of neutron energy spectra in the region of large angles in Xe + CsI collisions at energy of 3.8 A GeV**

*Tuesday, May 14, 2024 3:25 PM (25 minutes)*

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

**Session Classification:** Analysis meeting

Contribution ID: 144

Type: **not specified**

## **Report on the QA and run-by-run systematics in the Xe+Cs(I) run (via ZOOM)**

*Tuesday, May 14, 2024 4:10 PM (20 minutes)*

**Presenter:** DEMANOV, Alexander

**Session Classification:** Analysis meeting



Contribution ID: 145

Type: **not specified**

## **Pileup studies in run 8 data (via ZOOM)**

*Tuesday, May 14, 2024 4:30 PM (20 minutes)*

**Presenter:** GOLOSOV, Oleg (NRC "Kurchatov Institute", MEPHI)

**Session Classification:** Analysis meeting

Contribution ID: 146

Type: **not specified**

## **Analysis of geometrical cuts efficiency for $\Lambda$ and K-short reconstruction in the Xe run**

*Tuesday, May 14, 2024 4:50 PM (20 minutes)*

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

**Session Classification:** Analysis meeting

Contribution ID: 147

Type: **not specified**

## **Performance of ToF-700 and big CSC**

*Tuesday, May 14, 2024 5:10 PM (20 minutes)*

**Presenter:** MERTS, Sergei (JINR, LHEP)

**Session Classification:** Analysis meeting

Contribution ID: 148

Type: **not specified**

## **Estimation of the efficiency of small CSCs in Xenon run**

*Tuesday, May 14, 2024 5:30 PM (20 minutes)*

**Presenter:** PLOTNIKOV, Vasiliy (JINR)

**Session Classification:** Analysis meeting

Contribution ID: 149

Type: **not specified**

## **Performance of the TOF400 system in Xe run**

*Tuesday, May 14, 2024 5:50 PM (20 minutes)*

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

**Session Classification:** Analysis meeting

Contribution ID: **150**

Type: **not specified**

## **New data flow processing for TOF700**

*Thursday, May 16, 2024 2:20 PM (15 minutes)*

**Presenter:** ZHAVORONKOVA, Irina (National Research Nuclear University MPhI)

**Session Classification:** Analysis meeting

Contribution ID: 151

Type: **not specified**

## Status of the $\pi^+$ , $K^+$ analysis in the Xe+CsI run

*Thursday, May 16, 2024 2:35 PM (15 minutes)*

**Presenter:** MASHITSIN, Konstantin (St Petersburg University)

**Session Classification:** Analysis meeting

Contribution ID: 152

Type: **not specified**

## **Centrality assessment of Xe+CsI@3.8AGeV collisions using forward detectors at BM@N experiment**

*Thursday, May 16, 2024 2:50 PM (15 minutes)*

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

**Session Classification:** Analysis meeting



Contribution ID: 153

Type: **not specified**

## **Charged fragments-spectators measurements with Scintillation Wall in the BM@N experiment Xe+Csl@3.8 AGeV**

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

**Session Classification:** Analysis meeting

Contribution ID: 154

Type: **not specified**

## **Measurement of forward neutron yields with a High Granular Neutron Time-of-Flight Detector prototype from electromagnetic dissociation and nuclear interaction in Xe+CsI@3.8 AGeV collisions at the BM@N experiment**

*Thursday, May 16, 2024 3:05 PM (20 minutes)*

**Presenter:** ZUBANKOV, Aleksandr (Institute for Nuclear Research of the Russian Academy of Sciences)

**Session Classification:** Analysis meeting

Contribution ID: 155

Type: **not specified**

## **Analysis of the $^{124}\text{Xe}$ nucleus electromagnetic dissociation in the $\text{Xe}+\text{CsI}$ reaction**

*Thursday, May 16, 2024 3:25 PM (20 minutes)*

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

**Session Classification:** Analysis meeting

Contribution ID: 156

Type: **not specified**

## **ML-based neutron reconstruction in the HGND at the BM@N experiment**

**Presenter:** BOCHARNIKOV, Vladimir (HSE University)

**Session Classification:** Detector meeting

Contribution ID: 157

Type: **not specified**

## **Algorithm of neutron identification with the HGND at the BM@N experiment**

**Presenter:** SHABANOV, Arseniy (INR RAS)

**Session Classification:** Detector meeting

Contribution ID: 158

Type: **not specified**

## **RUCIO File Catalogue as a solution for the BM@N experiment (via ZOOM)**

*Thursday, May 16, 2024 12:00 PM (15 minutes)*

**Presenter:** ALEXANDROV, Anatoly (SPbU)

**Session Classification:** Software meeting

Contribution ID: 159

Type: **not specified**

## **Software for the hybrid tracking system of the next BM@N run**

*Thursday, May 16, 2024 12:15 PM (15 minutes)*

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

**Session Classification:** Software meeting

Contribution ID: **160**

Type: **not specified**

## **High-Granular Time-of-Flight Neutron Detector HGND for the BM@N experiment**

*Thursday, May 16, 2024 4:20 PM (20 minutes)*

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

**Session Classification:** Detector and Analysis Meeting



Contribution ID: 161

Type: **not specified**

## **Mechanical design, front-end electronics and integration of the HGND readout into the B@MN experiment data acquisition system**

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**Presenters:** FINOGEEV, Dmitry (INR RAS); MAKHNEV, Aleksandr (INR of RAS)

**Session Classification:** Detector and Analysis Meeting

Contribution ID: **162**

Type: **not specified**

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Type: **not specified**

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**Session Classification:** Detector and Analysis Meeting

Contribution ID: 164

Type: **not specified**

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**Session Classification:** Detector and Analysis Meeting