

Commissioning of new FHCAL at BM@N experiment

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The BM@N (Baryonic Matter at Nuclotron) is the fixed target experiment at NICA-Nuclotron (JINR, Dubna, Russia) accelerator complex. The main goal of the experiment is studying the properties of dense nuclear matter produced in ion-ion collisions. New Forward Hadron Calorimeter (FHCAL) with modular structure and a beam hole in the center has been developed and constructed to measure the collision centrality after the BM@N upgrade. The transverse and longitudinal segmentation of the FHCAL allows to perform calibration of the calorimeter with cosmic muons.

FHCAL modules have lead/scintillator sampling structure with longitudinal segmentation. Light signals from the sections are collected with MPPCs, amplified and read-out by ADC boards. Fast analog signals are collected for trigger system.

The status of development and construction of the new FHCAL calorimeter for the BM@N experiment will be presented. Performance of FHCAL front-end and readout systems will be discussed.

TIPP2020 abstract resubmission?

No, this is an entirely new submission.

Funding information

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