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ML approach for centrality determination in Xe+CsI collision at 4.0 AGeV at the BM@N experiment

The first experiment at the upgraded BM@N on the study of particle production in Xe+CsI at 4.0 AGeV collisions is planned at the beginning of 2022. To measure the centrality of nucleus collisions in this reaction the new forward hadron calorimeter FHCal will be used. The performance of new upgraded forward hadron calorimeter with transverse and longitudinal segmentations is shown. Results of applying the ML methods for the centrality determination with FHCal at simulated data of Xe+CsI collisions at 4.0 AGeV are discussed. This work was supported by the Russian Foundation of Basic Research (RFBR) Grants №18-02-40081.

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