

SEARCH FOR NUCLEON-NUCLEON CORRELATIONS IN NUCLEUS-NUCLEUS COLLISION AT THE MPD/NICA

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A proposal for an experiment to measure the cross section of pion, kaon, proton and antiproton production in a nucleus-nucleus collision in a kinematically forbidden region for nucleon-nucleon interaction on the MPD/NICA is considered. It is shown that this process can be separated from the kinematically allowed production process using the existing detectors of the MPD facility at an energy of 9.2 GeV. The data could be used to search for scaling dependence, which was observed earlier at lower energies [1]. Obtaining new results is of great importance for estimating the magnitude of the probability of the subthreshold heavy particles production process [2].

1. A. Kurepin et al., Acta Physica Polonica B, 27, 3077 (1996).

2. A. Kurepin, Journal of Modern Physics 12, 433 (2021).

The speaker is a student or young scientist

Yes

Section

1. Intermediate and high energies, heavy ion collisions

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