

Evaluation of the MPD/NICA detector capabilities for studies of hyperons and mesons in dense nuclear matter

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Hyperons could provide essential signatures of the excited and compressed baryonic matter. Their identification and reconstruction should be one of the most important tasks of any experiment with heavy ions. The MPD/NICA start version's characteristics for measuring hyperons (Λ , $\bar{\Lambda}$, Ξ^- , Ω^-) obtained on Monte Carlo simulated event samples of gold-gold collisions at NICA energies will be presented. It will be shown that the MPD start version will provide a good opportunity to perform such measurements and the current status of the event reconstruction algorithms and software is adequate for a study of the strangeness production at NICA (achieved mass resolution 2-3 MeV/c² with high enough yields).

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