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Type: **Talk**

Production and reconstruction of short-lived resonances in heavy-ion collisions at NICA energies using the MPD detector

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The short-lived resonances have been very useful in the study of heavy-ion collisions at SPS, RHIC, and the LHC. Properties of these particles measured in hadronic decay channels carry a wealth of information about the hadron chemistry and reaction dynamics. Resonances containing one or two strange quarks contribute to the study of the strangeness enhancement phenomenon, their integrated and differential yields are sensitive to the hadron re-scattering and regeneration in the hadronic phase. The resonance production has never been studied in detail in heavy-ion collisions at NICA energies. We review the expected properties of the resonances and their sensitivity to different stages of Au+Au collisions at different energies, $\sqrt{s_{NN}} = 4\text{--}11$ GeV. Results of feasibility studies for reconstruction of $\rho^0(770)$, $K^*(892)$, $\phi(1020)$, $\Sigma(1385)^\pm$, $\Lambda(1520)$ and $\Xi(1530)^0$ resonances in the MPD experimental setup as a function of collision energy and centrality are presented.

Is this abstract from experiment?

Yes

Internet talk

Yes

Name of experiment and experimental site

MPD at NICA

Is the speaker for that presentation defined?

Yes

Details

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