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Type: Talk

Strange hadron production in d+Au collisions at $\sqrt{s_{NN}} = 200$ GeV using the STAR detector

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Strangeness production has been suggested as a sensitive probe to the early dynamics of the deconfined matter created in heavy-ion collisions. Ratios of particle yields involving strange particles are often utilized to study freeze-out properties of the nuclear matter, such as the strangeness chemical potential and the chemical freeze-out temperature. d+Au data connect between Au+Au and pp collisions, and supply the baseline for the study of strangeness enhancement in the deconfined matter. The study of nuclear modification factor in d+Au collisions can also help to understand Cronin-like effects.

In this work, we will present new measurements on the production of strange hadrons (K_S^0 , Λ , Ξ , Ω) at mid-rapidity in d+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, recorded by the STAR experiment in 2016. We will report transverse momentum (p_T) spectra, p_T integrated yield dN/dy , average transverse momentum, yield ratios, and nuclear modification factors for those strange hadrons. The physics implications of the measurement on the collision dynamics will be discussed.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

STAR Experiment, BNL

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

Maybe

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