Abstract ID : **133**

Strangeness production in d+Au collisions at √sNN = 200 GeV using the STAR detector

Content

Strangeness production has been suggested as a sensitive probe to the early-time dynamics of the deconfined matter created in heavy-ion collisions. The ratios of particle yields involving strange particles are often utilized to study various properties of the created nuclear matter, such as the strangeness chemical potential and the chemical freeze-out temperature. Analysis of d+Au data will serve for connecting data between Au+Au and p+p 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 poster, we will present new measurements of mid-rapidity strange particle production (${K_S}^0$, Λ, Ξ, Ω) from d+Au collisions at $\sqrt{s_{\rm NN}} = 200$ GeV recorded by the STAR experiment in 2016. We will report their transverse momentum spectra, dN/dy, average transverse momentum, yield ratios, and nuclear modification factors. The physics implications on the collision dynamics will be discussed.

Primary authors: AGGARWAL, Ishu (Panjab University Chandigarh); COLLABORATION , STAR

Track Classification: Light-flavor and Strangeness

Contribution Type: Poster

Submitted by **AGGARWAL, Ishu** on **Monday, 14 March 2022**