# Strange hadron production in d+Au collisions at $\sqrt{s_{\rm NN}} = 200$ 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 ($K_S{}^0$, $\Lambda$, $\Xi$, $\Omega$) at mid-rapidity in d+Au collisions at $\sqrt{s_{\rm NN}} = 200$ GeV, recorded by the STAR experiment in 2016. We will report transverse momentum ($p_{\rm T}$) spectra, $p_{\rm T}$ 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.