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## Measurement of $\Lambda_c^-/\Lambda_c^+$ Ratio in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV with the STAR Experiment

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The yield ratios of strange anti-baryons to baryons have been measured in heavy-ion collisions and exhibit a trend that is getting closer to unity with increasing number of valence strange quarks. This ratio has, however, never been measured for charm baryons, and it will be important to establish if they exhibit a similar amount of baryon-to-anti-baryon enhancement as strange baryons.  $\Lambda_c$  is the lightest baryon containing a charm quark and, as such, presents a unique probe to study the hadronization of charm quarks in the hot and dense QCD medium created in ultra-relativistic heavy-ion collisions.  $\Lambda_c$  has, however, an extremely short lifetime ( $c\tau \sim 60 \mu\text{m}$ ) which makes the reconstruction experimentally challenging. The Heavy Flavor Tracker, installed at the STAR experiment between the years 2014-2016, has shown a high efficiency and an unparalleled track-pointing resolution that facilitates the  $\Lambda_c$  reconstruction in heavy-ion collisions. In this poster, we will present the reconstruction of  $\Lambda_c$  baryons via hadronic decays and the measurement of the yield ratio of  $\Lambda_c^-/\Lambda_c^+$ , utilizing the high-statistics data samples of Au+Au collisions at  $\sqrt{s_{NN}} = 200$  GeV, recorded with the STAR experiment in 2014 and 2016.

### Content type

Experiment

### Collaboration

STAR

### Centralised submission by Collaboration

Presenter name already specified

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