



Contribution ID: 998

Type: Poster

Λ_c^+ production in 5.02 TeV pp and PbPb collisions with CMS

Friday 8 April 2022 14:00 (4 minutes)

In heavy-ion collisions, charm hadron production can occur via coalescence, where charm quarks combine with the surrounding light quarks in the QGP. The relative coalescence contribution is expected to be more significant for hadrons with a larger number of constituent quarks. Such an effect will contribute to the modification of the baryon-to-meson ratio in heavy-ion collisions, compared to pp collision. Therefore, measurements of Λ_c^+ production in PbPb and pp collisions can provide important input to the understanding of the coalescence mechanism for charm quark. The high luminosity datasets collected by the CMS detector have been used to measure Λ_c^+ production via $\Lambda_c^+ \rightarrow p^+ K^- \pi^+$. Results of the ratios of Λ_c^+ over D^0 yields in pp and PbPb collisions will be shown. The nuclear modification factors of Λ_c^+ will also be presented.

Author: CHANDRA, Soumik (Purdue University (US))

Presenter: CHANDRA, Soumik (Purdue University (US))

Session Classification: Poster Session 3 T11_5

Track Classification: Heavy flavors, quarkonia, and strangeness production