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# $^{0}_{c}$ production cross section in pp collisions at $\sqrt{s} = 13$ TeV with ALICE

*Thursday, June 10, 2021 6:45 PM (1 hour)*

Recent measurements of charm-baryon production at midrapidity by the ALICE collaboration in pp collisions show baryon-over-meson ratios significantly higher than those in $e^{+}e^{-}$ collisions for different charm-hadron species. The charmed baryon-to-meson and charmed baryon-to-baryon ratios provide unique information on hadronisation mechanisms. In this poster, the first measurement of production cross section of $^{0}_{c}$ via the hadronic decay channel $^{0}_{c} \rightarrow \pi^{+}$ $^{-}$ (and its charge conjugate) in $2 < p_{T} < 12$ GeV/$c$ performed with the ALICE detector at midrapidity in pp collisions at $\sqrt{s} = 13$ TeV is presented. The $^{0}_{c}/D^{0}$ and $^{0}_{c}/$ $^{0}_{c}$ ratios at midrapidity in pp collisions are compared to MC generators with fragmentation fractions based on $e^{+}e^{-}$ measurements and models including hadronization of charm quark via coalescence.

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