Contribution ID: **250** Type: **Poster**

K*(892)± production in pp collisions at √s = 5.02 and 8 TeV with ALICE at the LHC

Tuesday, 15 May 2018 19:10 (30 minutes)

Resonances are useful tools to study the properties of the hadronic medium produced in high energy heavy-ion collisions, due to their short lifetime. They are good candidates to probe the interplay of particle re-scattering and regeneration in the hadronic phase. In particular, the $K^*(892)^{\pm}$ resonances are important because of their very short lifetimes (~ 4 fm/c) which are comparable to that of the fireball. The $K^{*\pm}$ is reconstructed via a two-step decay process: the resonance undergoes a strong decay to $K^0_S + \pi^{\pm}$ and then the K^0_S decays weakly to $\pi^+ + \pi^-$. Measurements in pp collisions constitute a reference for the measurements in p-Pb and Pb-Pb collisions at the same center-of-mass energy and contribute to the study of the energy and multiplicity dependence of particle production in pp collisions. The results presented here include the transverse momentum (p_{T}) spectra, integrated yields and $\langle p_{\mathrm{T}} \rangle$ for $K^{*\pm}$ in pp collisions at $\sqrt{s}$ = 5.02 and 8 TeV. The results are compared to the measured production of neutral $K^*(892)$ and with the predictions from commonly used QCD-inspired event generators.

Content type

Experiment

Collaboration

ALICE

Centralised submission by Collaboration

Presenter name already specified

Authors: Ms SAHOO, Pragati (Indian Institute of Technology Indore (IN)); DE, Sudipan (Indian Institute of Technology Indore (IITI))

Presenter: Ms SAHOO, Pragati (Indian Institute of Technology Indore (IN))

Session Classification: Poster Session

Track Classification: QCD at high temperature