

1 Additional material

2 PYTHIA 8 Tuning

The Pythia tuning represents the code that produced the results presented in Fig.5.

Parameter	Value
SoftQCD:all	on
StringFlav:probQQ1toQQ0join	0.0275,0.0275,0.0275,0.0275
StringFlav:probQQtoQ	0.0780000
StringFlav:ProbStoUD	0.2
StringZ:aLund	0.36
StringZ:bLund	0.56
StringFlav:mesonCvector	1.35
ColourReconnection:mode	1
BeamRemnants:remnantMode	1
ColourReconnection:allowDoubleJunRem	off
MultipartonInteractions:pT0Ref	2.15
PartonVertex:ProtonRadius	0.7
PartonVertex:setVertex	on
Ropewalk:beta	0.1
Ropewalk:deltat	0.05
Ropewalk:doFlavour	on
Ropewalk:doShoving	on
Ropewalk:gAmplitude	0.0
Ropewalk:RopeHadronization	on
Ropewalk:tShove	0.1

Table 1: PYTHIA 8 tuning used for the theory predictions.

3 Comparison to other experiments

In this appendix, the results from this paper are compared to measurements from other experiments.

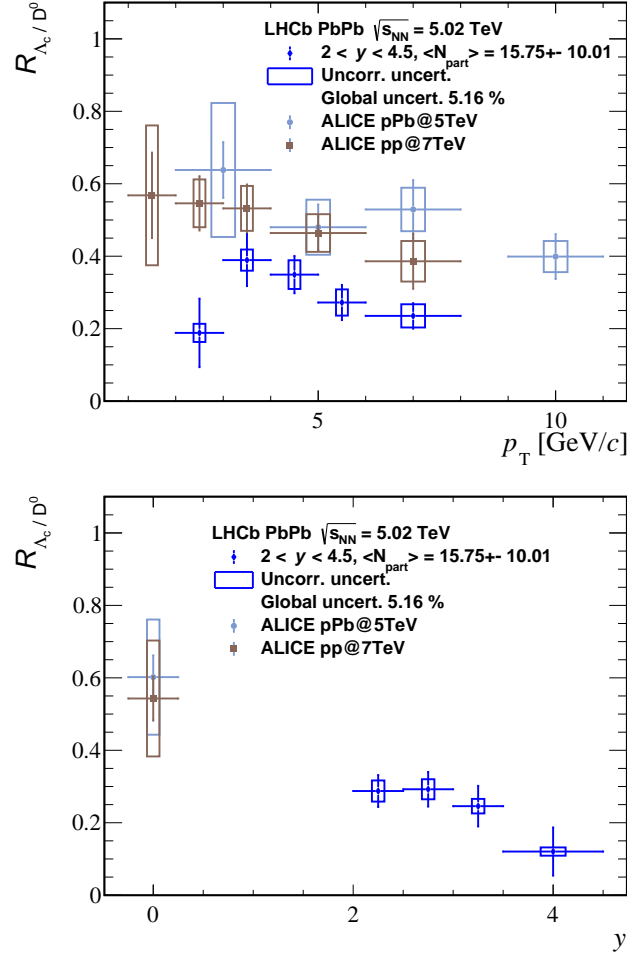


Figure 1: Prompt $R_{\Lambda_c^+ / D^0}$ production ratios as a function of p_T (top panel) and rapidity (bottom panel). The error bars represent the statistical uncertainties, the boxes around the points the uncorrelated systematic uncertainties. Results are compared to the ALICE measurements (brown) in $p p$ and (light blue) pPb collisions at $\sqrt{s_{NN}} = 5.02$ TeV [1].

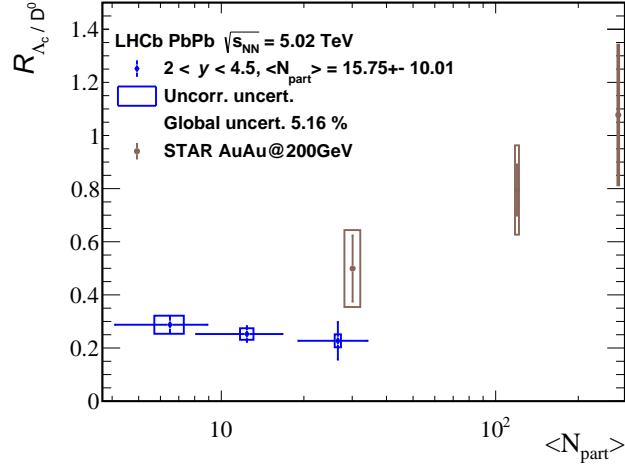


Figure 2: Prompt $R_{\Lambda_c^+/D^0}$ production ratios as a function of $\langle N_{part} \rangle$. The error bars represent the statistical uncertainties, the boxes around the points the uncorrelated systematic uncertainties. Results are compared to the STAR measurements in Au-Au collisions at $\sqrt{s_{NN}} = 200$ GeV [2].

References

- [1] S. Acharya *et al.*, “ Λ_c^+ production in pp and in p -Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV,” *Phys. Rev.*, vol. C104, no. 5, p. 054905, 2021.
- [2] J. Adam *et al.*, “First measurement of Λ_c^+ baryon production in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV,” *Phys. Rev. Lett.*, vol. 124, no. 17, p. 172301, 2020.