

- ▶ Negligible impact on D^0 meson
 - ◆ Charm F_2 , gluon helicity, gluon TMD measurements via D^0 will not be affected
- ▶ Larger impact on Λ_c baryon
 - ◆ Charm hadron double ratio R_{eA} : negligible impact on D^0 meson, about a factor of 2 stat. err. increase for Λ_c
 - ◆ Λ_c/D^0 ratio to study hadron chemistry: increasing impact at low p_T range and forward rapidity

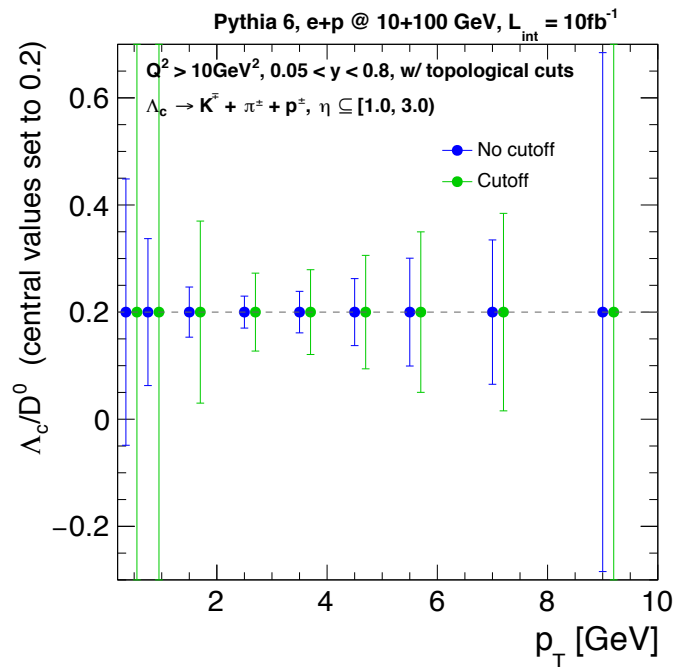
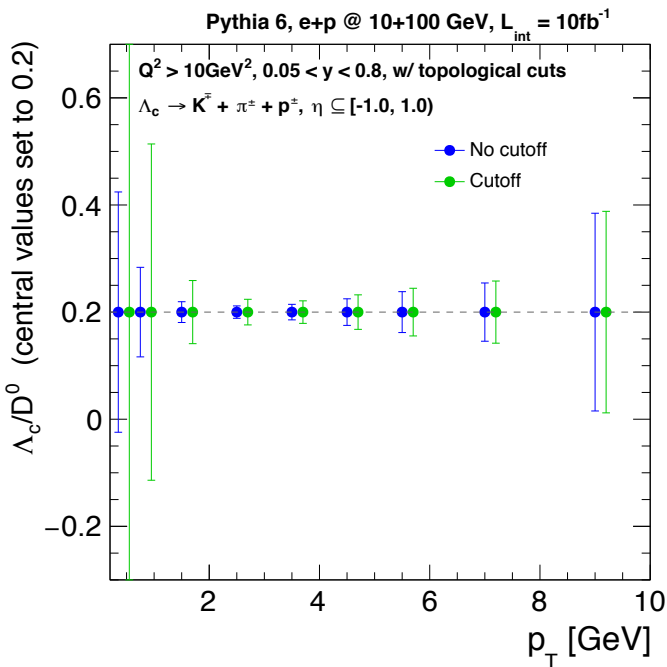


Figure from ATHENA proposal (credit: Yuanjing Ji)

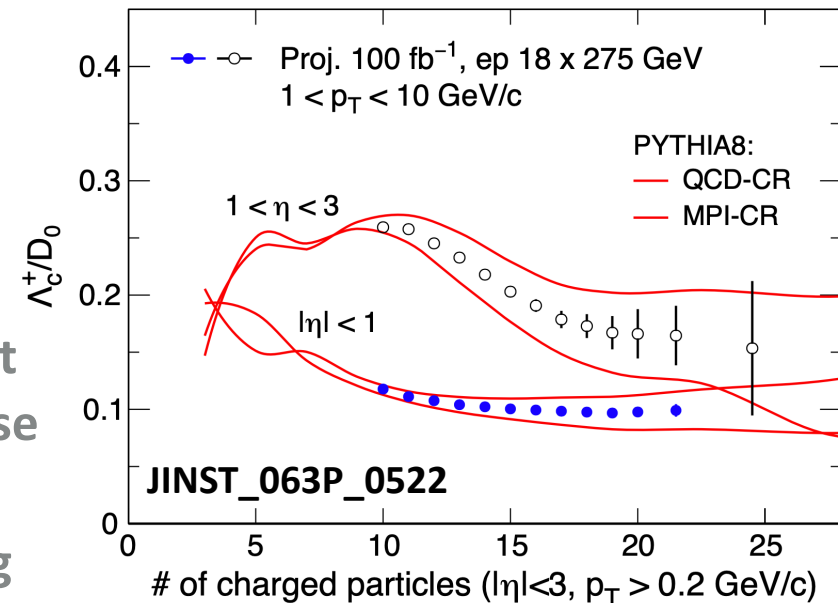


Figure 3.28: Projections for ATHENA measurements of the heavy-quark Λ_c^+ to D^0 baryon-to-meson ratio as a function of the charged track multiplicity (FastSim).