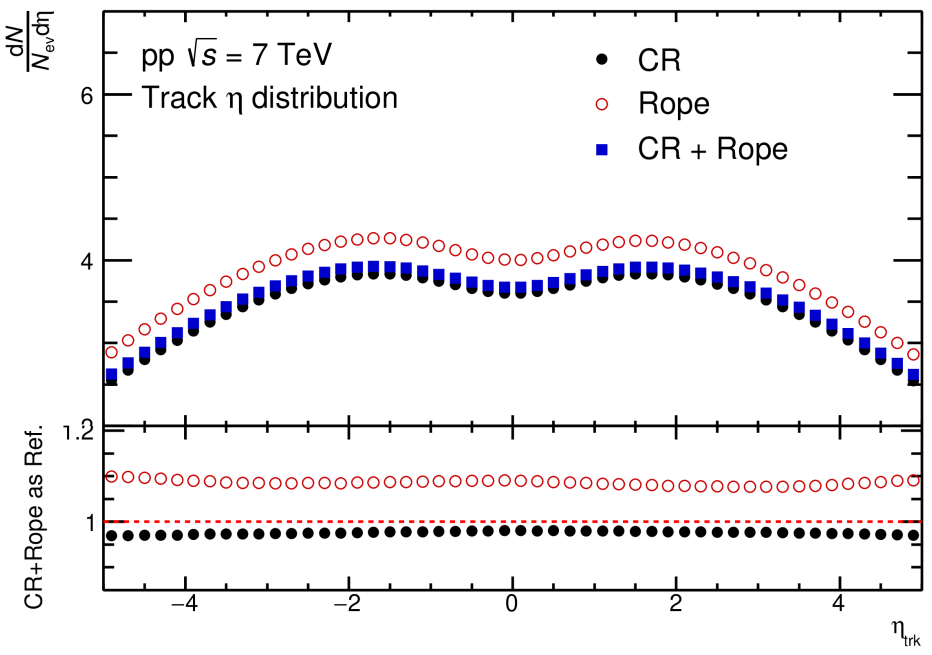
Study strange particle in jet

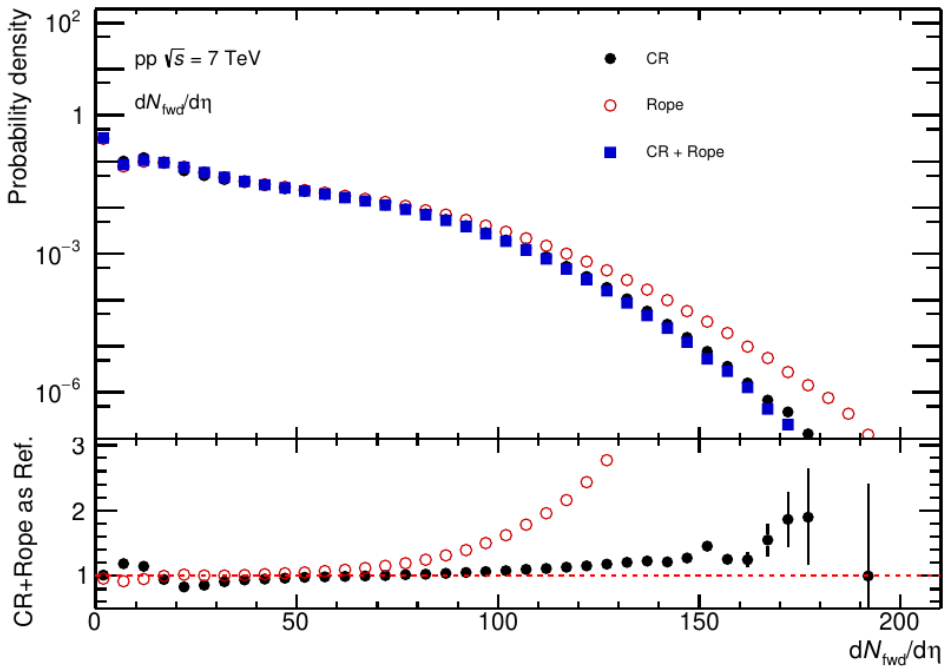
150 M events pp 7 TeV

New updated

To be updated

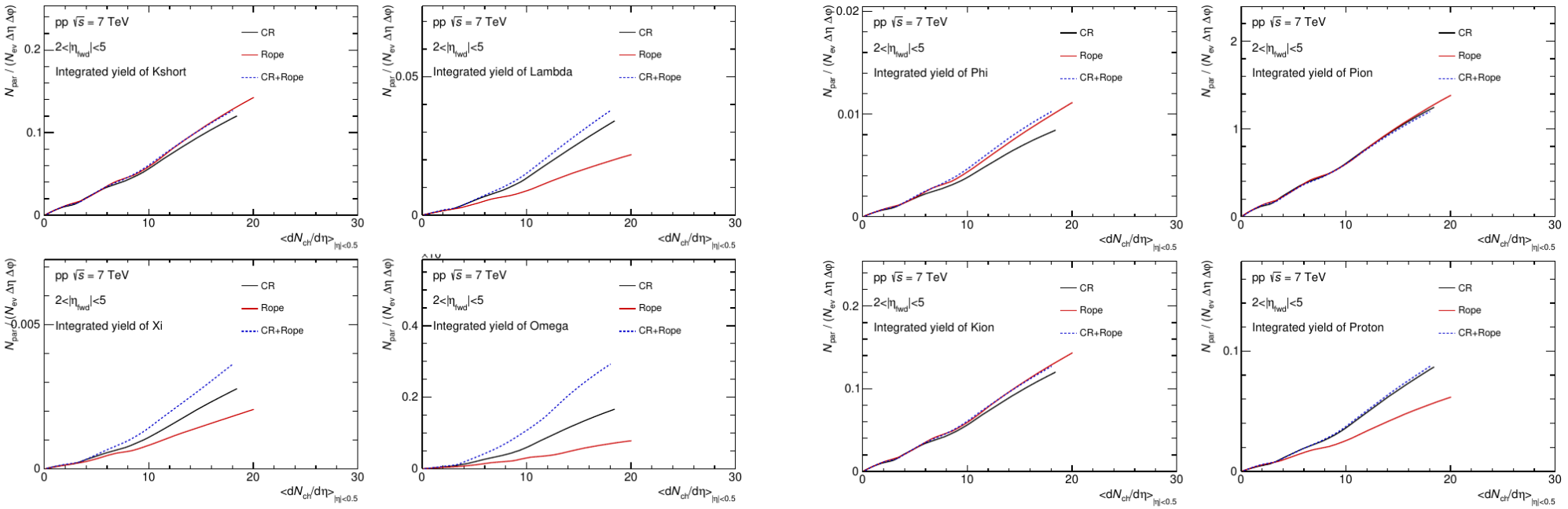
Tracks





- Track eta distribution in MB events
- Forward tracks dNdeta distribution

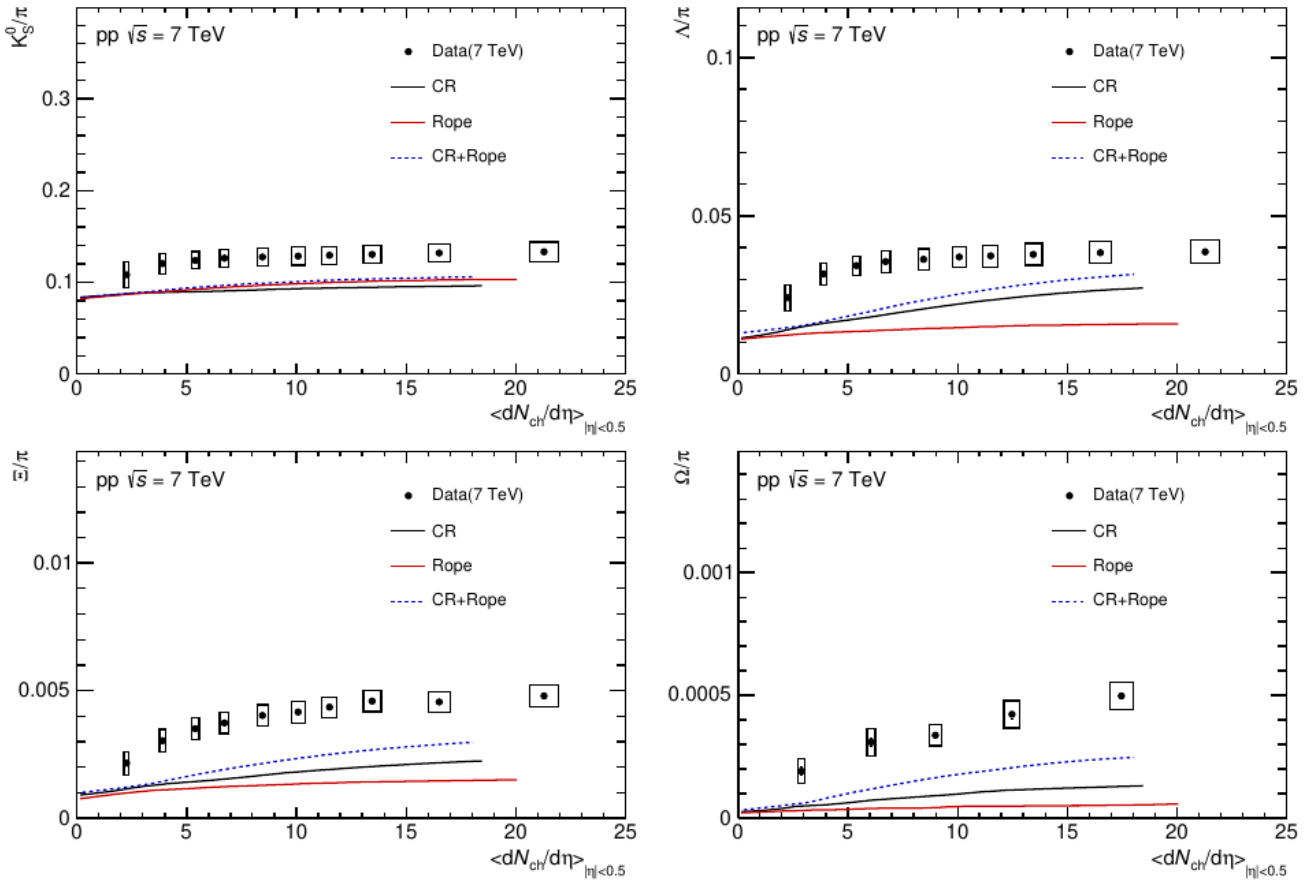
Integrated yield vs <dNdeta>

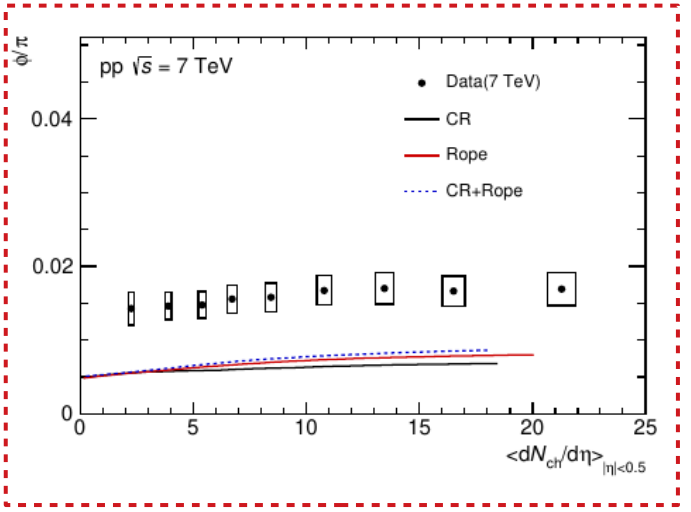


- Integrated yield of some interest particles (compare to Data)

Particle-to-pion ratios with <dNdeta>

Figure 5: Inclusive integrated yields ratios of strange particle to π with $\langle dN_{ch}/d\eta \rangle$. (Data taken from arXiv:1606.07424v2 and arXiv:1807.11321v2)





Strange particle to phi ratio with <dNdeta>

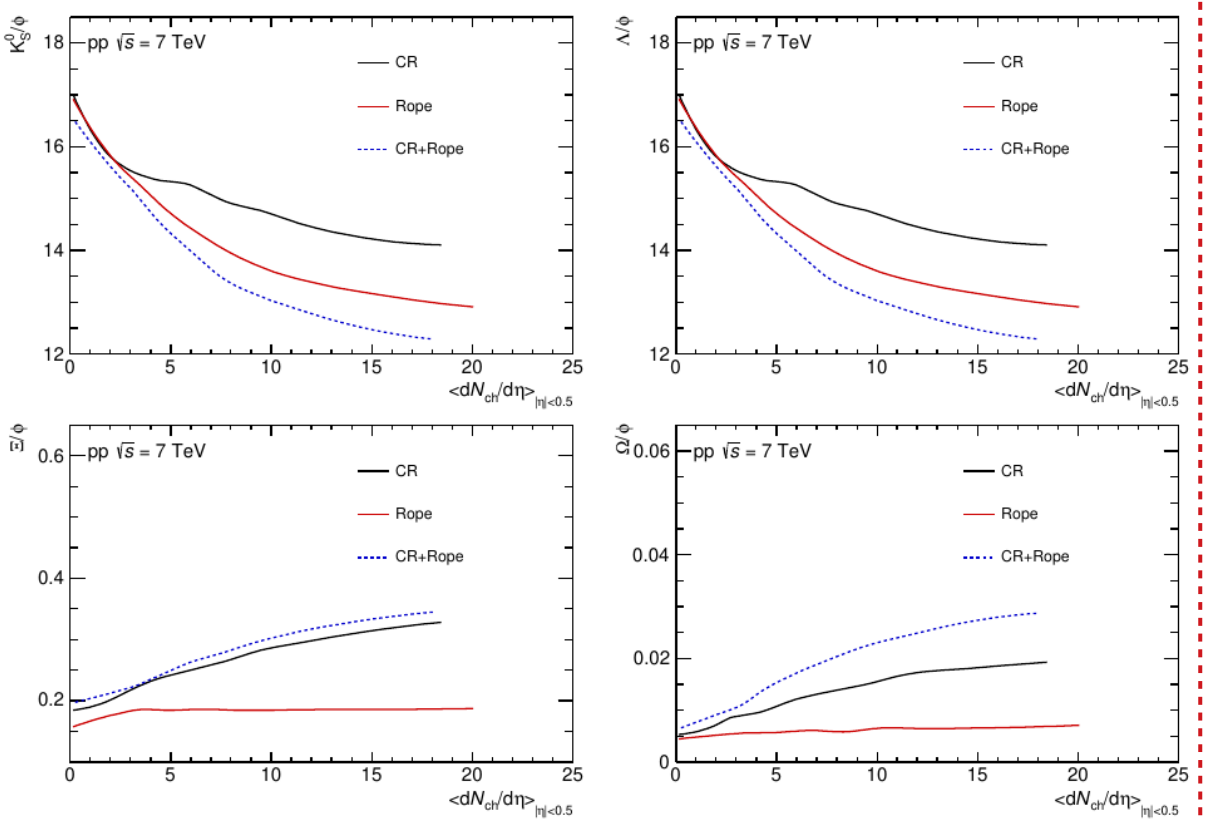


Figure 6: Inclusive integrated yields ratios of strange particle to ϕ with $\langle dN_{ch}/d\eta \rangle$.

Strange baryon to baryon ratio with <dNdeta>

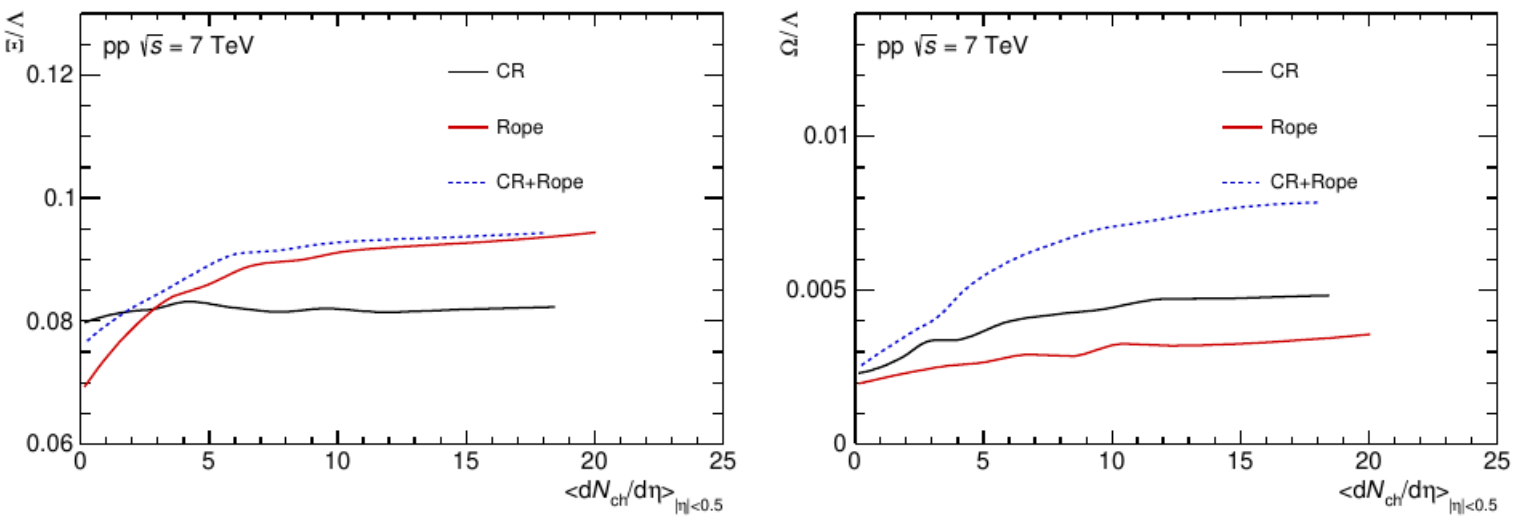
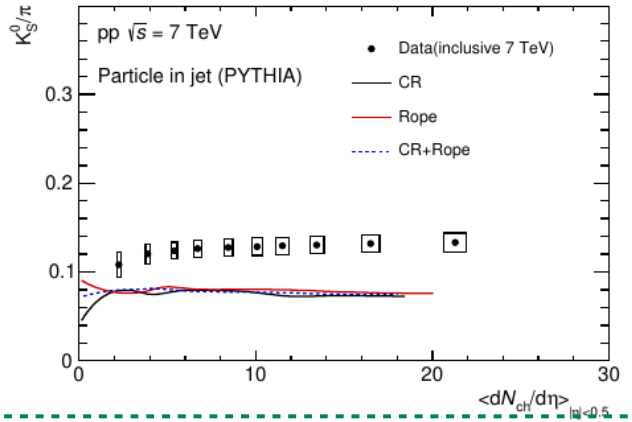
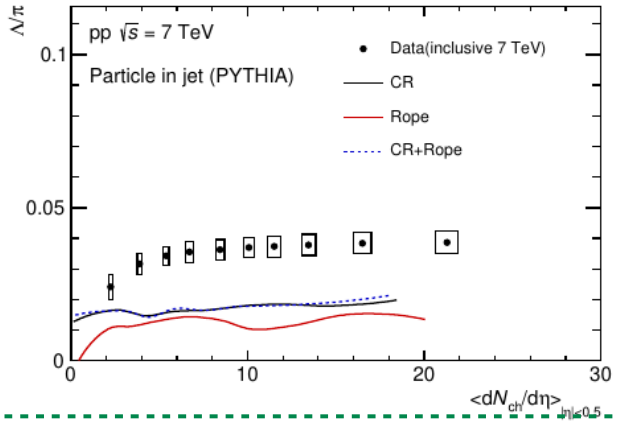


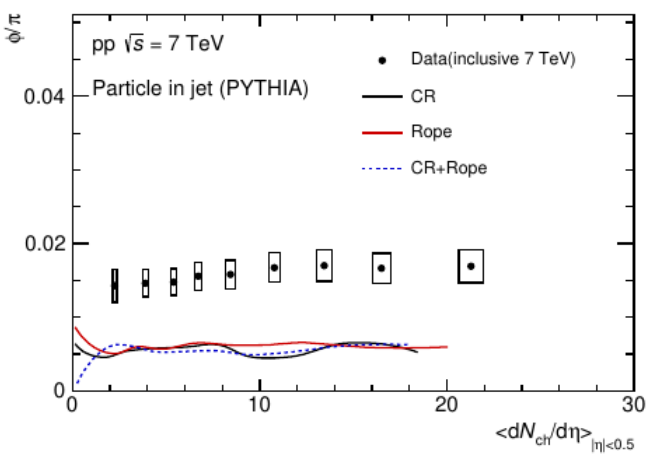
Figure 7: Inclusive integrated yields ratios of strange baryon to baryon with $\langle \mathrm{d}N_{\mathrm{ch}}/\mathrm{d}\eta \rangle$.

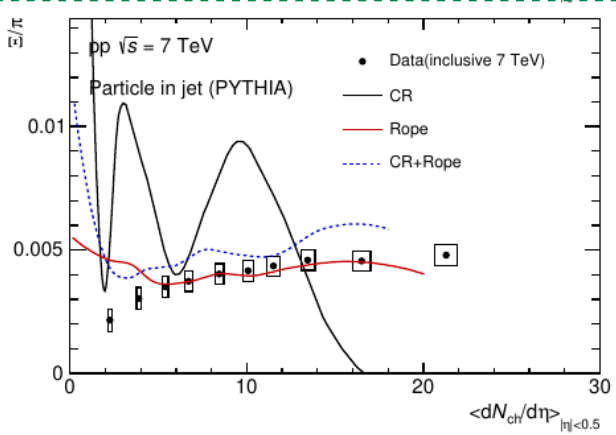
Particle-to-pion ratios in jet with <dNdeta>

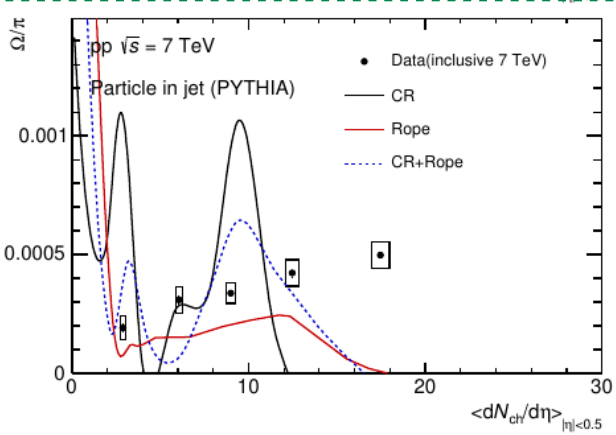
Figure 8: Integrated yields ratios in jet of strange particle to π with $\langle dN_{ch}/d\eta \rangle$. (Data taken from arXiv:1606.07424v2 and arXiv:1807.11321v2)











- Kshort, Lambda and phi to pion ratio almost independent with <dN/deta>
- Xi and Omega still lack of statistics

Inclusive particle ratio with pT distribution

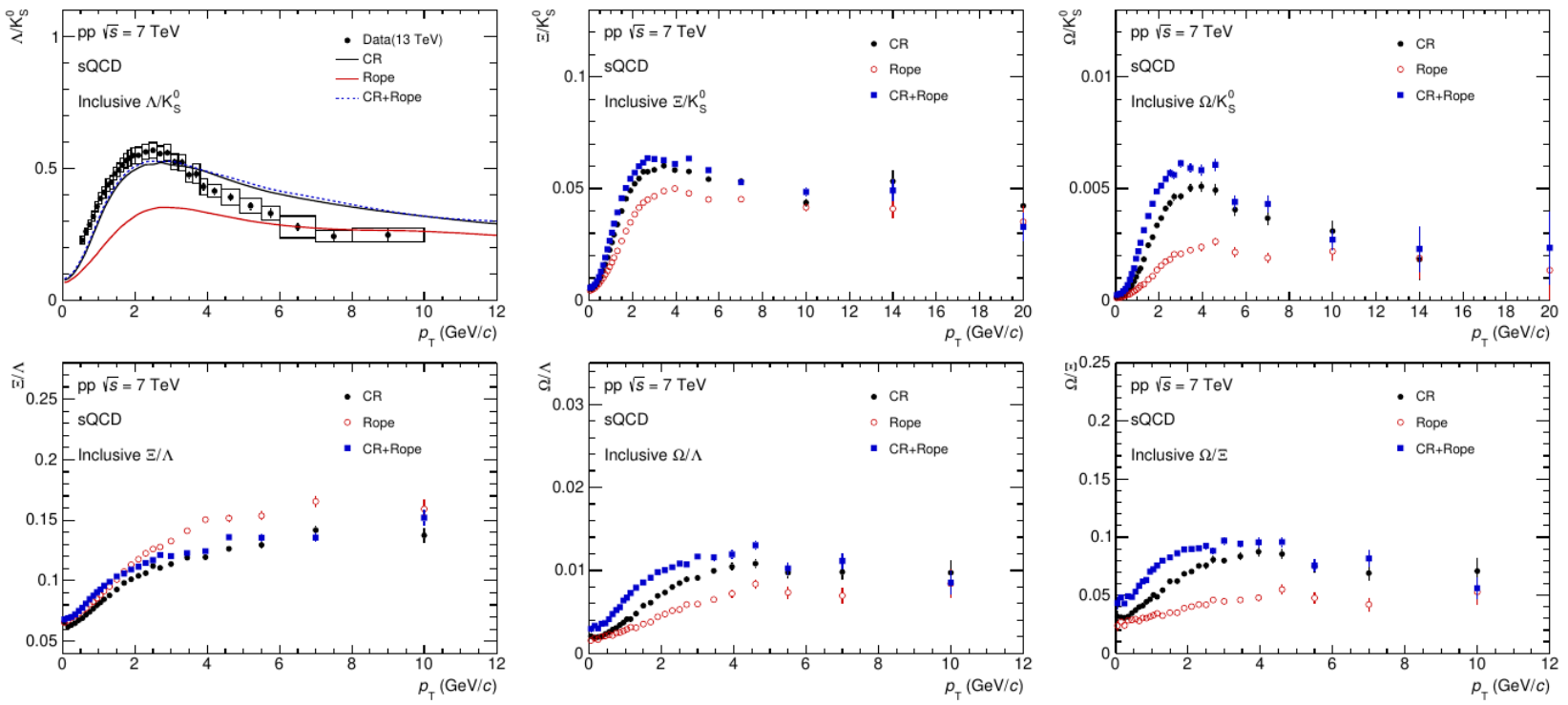


Figure 9: Inclusive baryon-to-meson ratio(top) and Baryon-to-meson ratio(bottom) with p_{T} distribution. (Only find data point of Lambda/Kshort in 13 TeV from arXiv:2005.11120)

Inclusive particle ratio with pT distribution

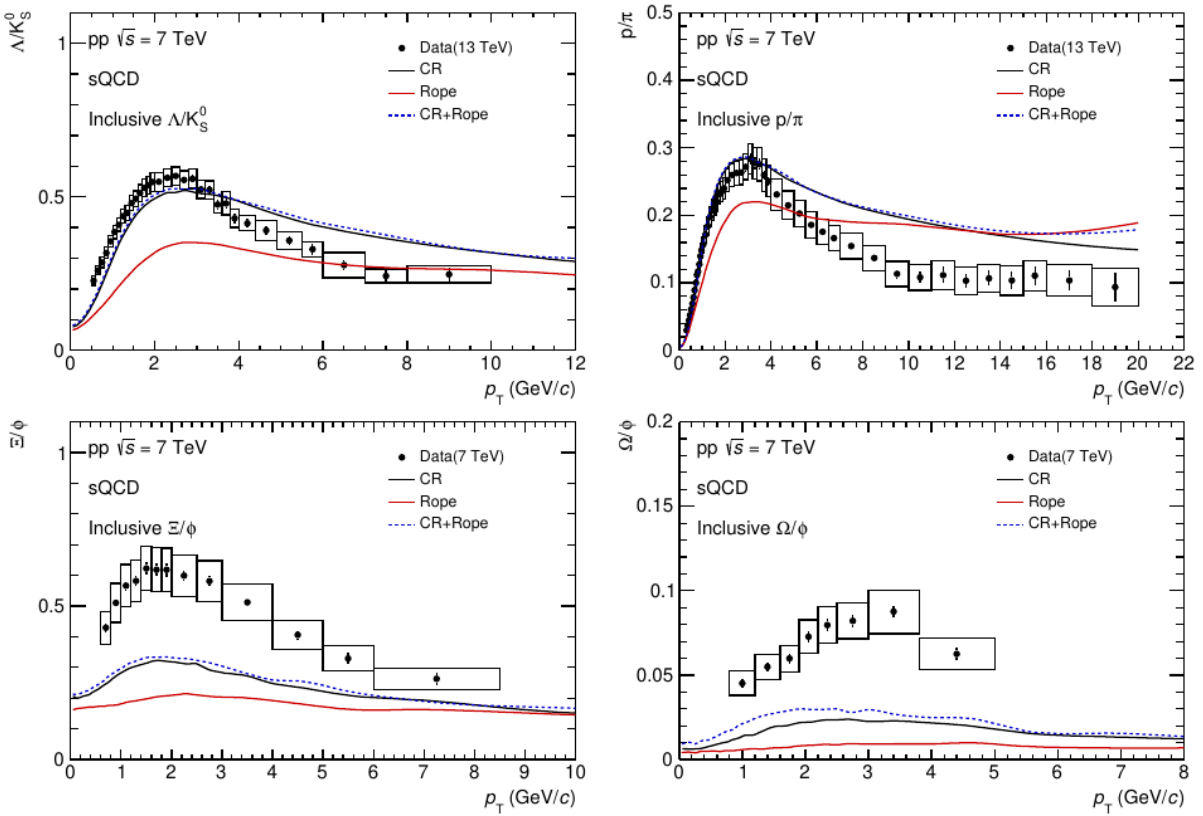
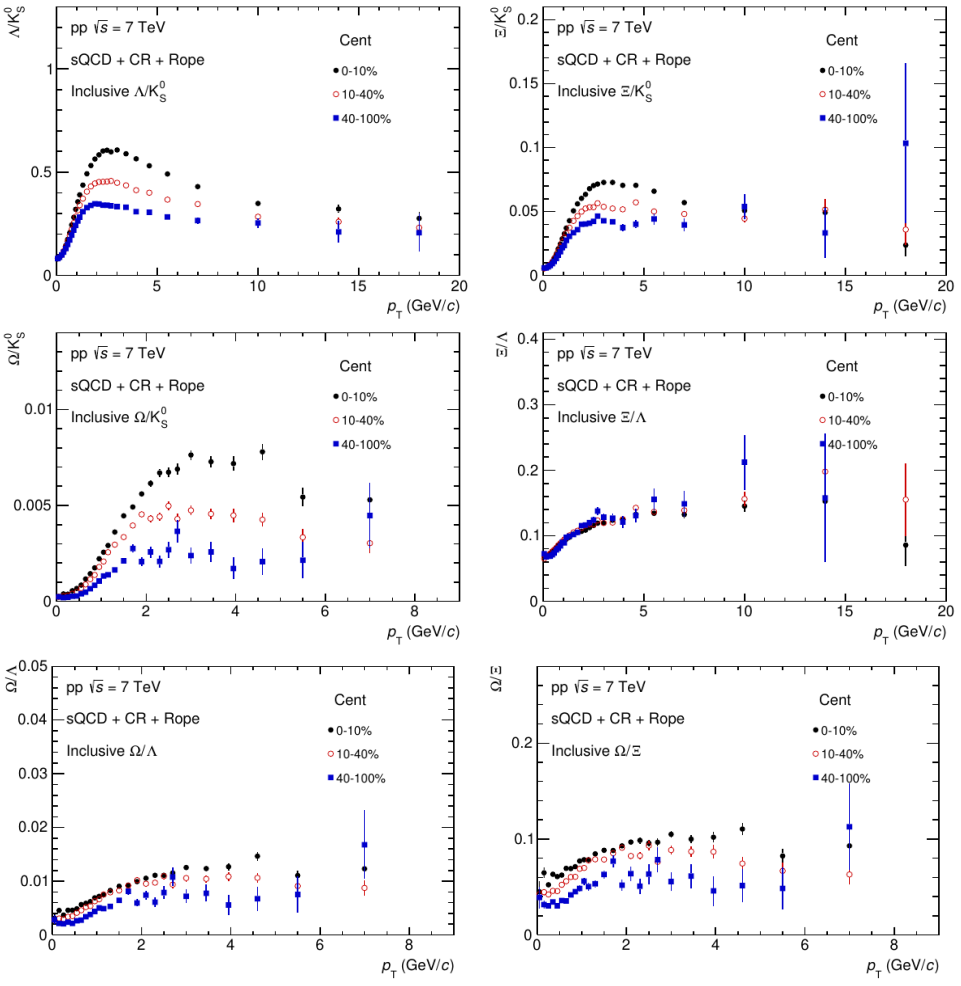
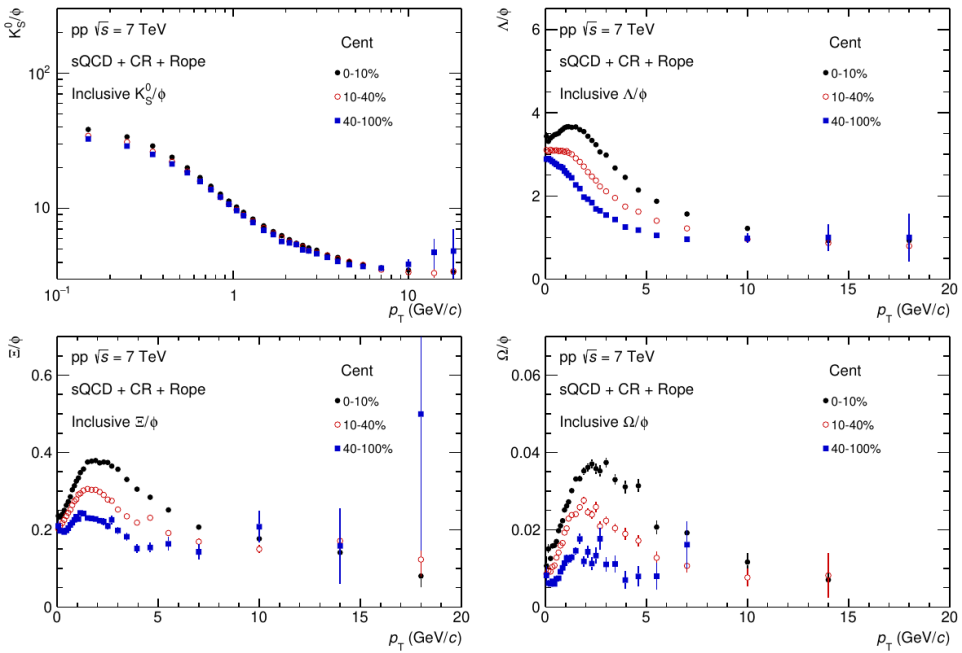


Figure 10: Inclusive baryon-to-meson ratio(top) with p_T distribution.(data points are taken from arXiv:2005.11120)

Particle ratio in different centrality bin

CR+Rope

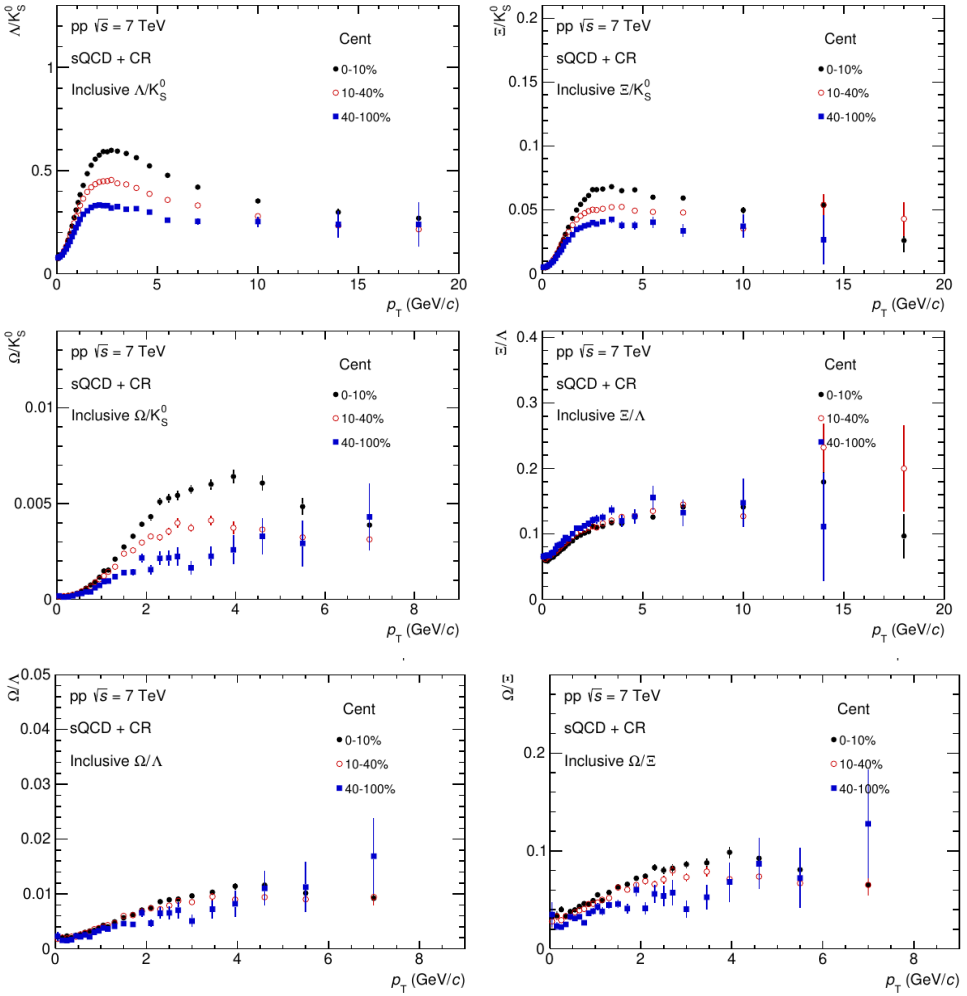


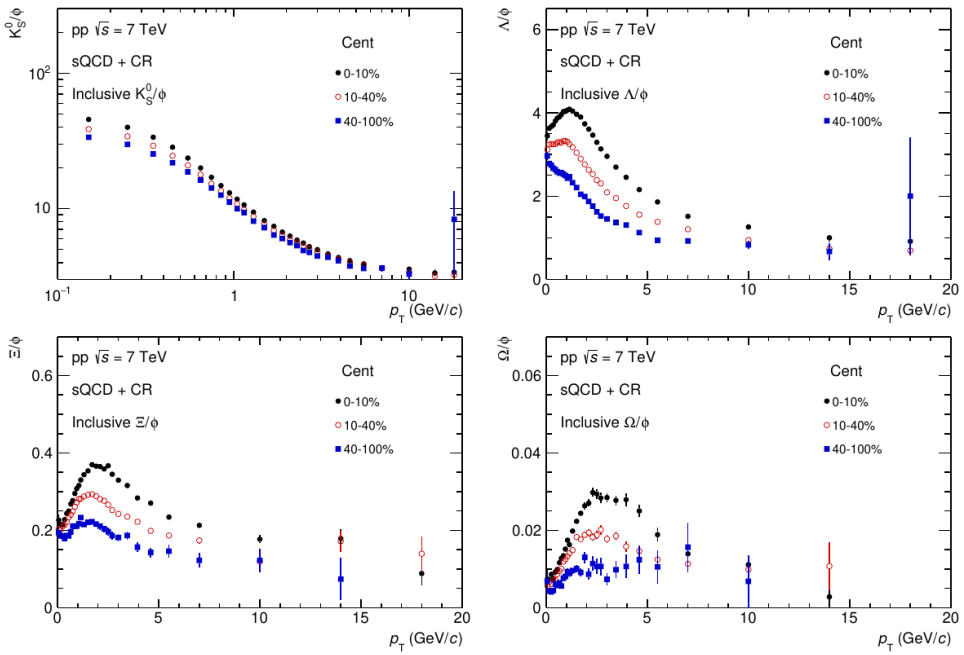


BB and BM with pT distribution

Particle ratio in different centrality bin

CR

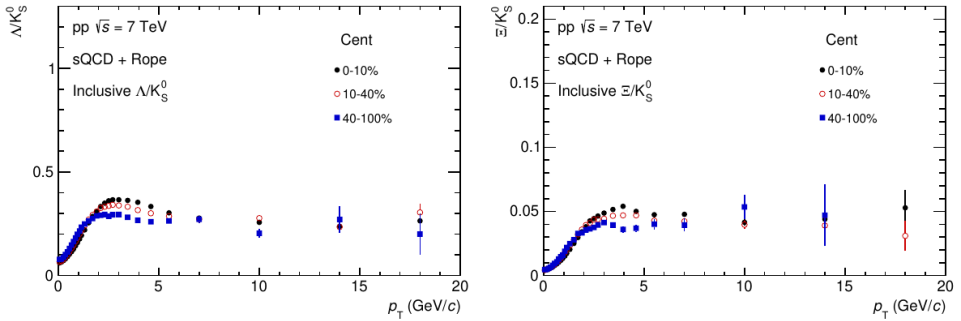


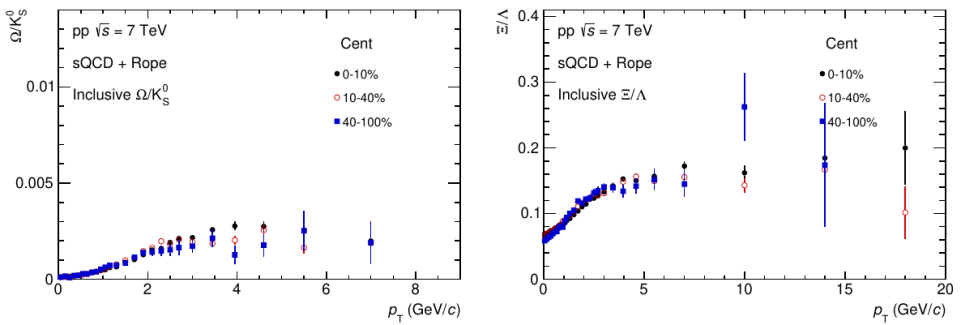


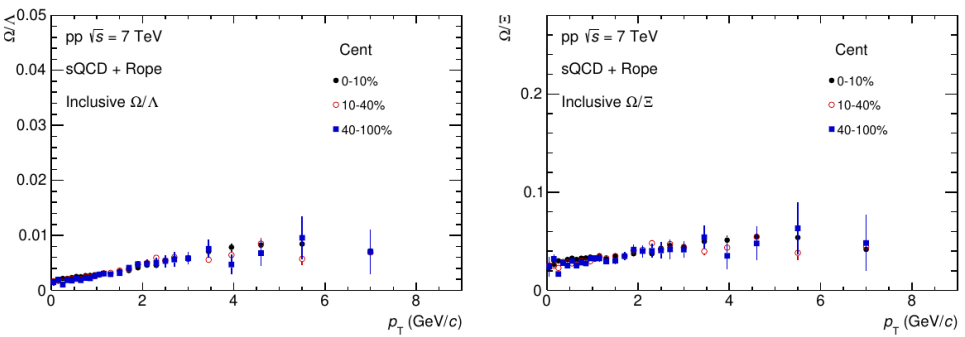
BB and BM with pT distribution

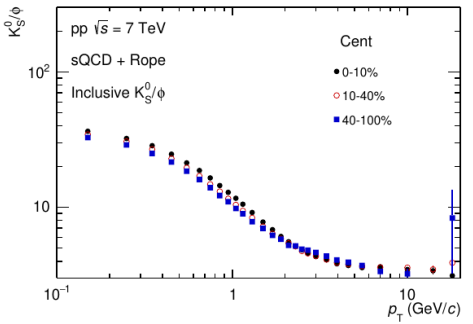
Particle ratio in different centrality bin

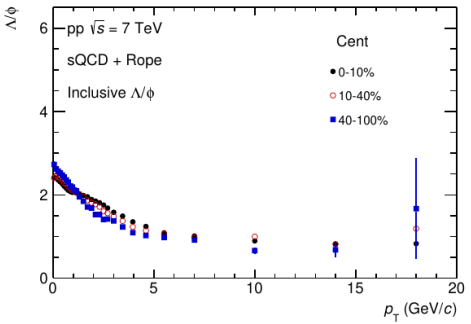
Rope

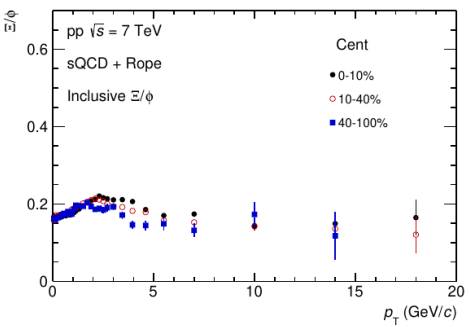


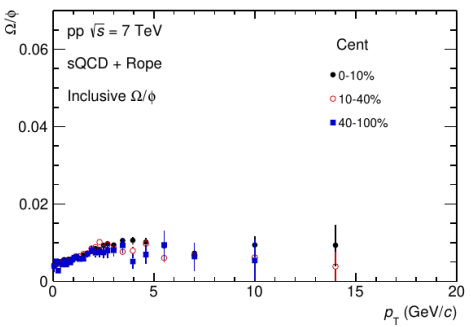












BB and BM with pT distribution

Lambda/Kshort with multiplicity bin

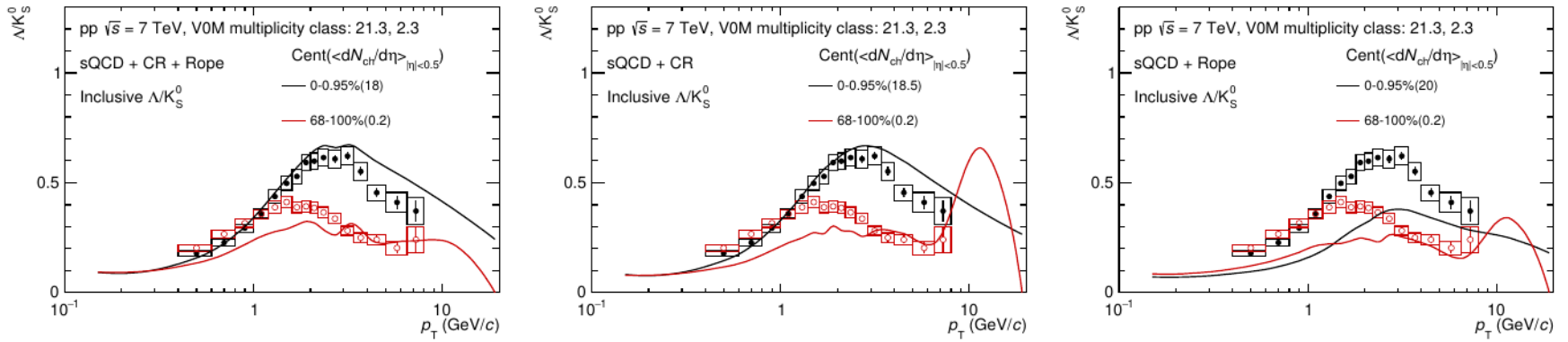


Figure 14: Λ/K^0_S ratio with p_T distribution in large multiplicity bin(black) and small multiplicity bin(red) with different PYTHIA parameters.

Particle ratio in jet with pT distribution

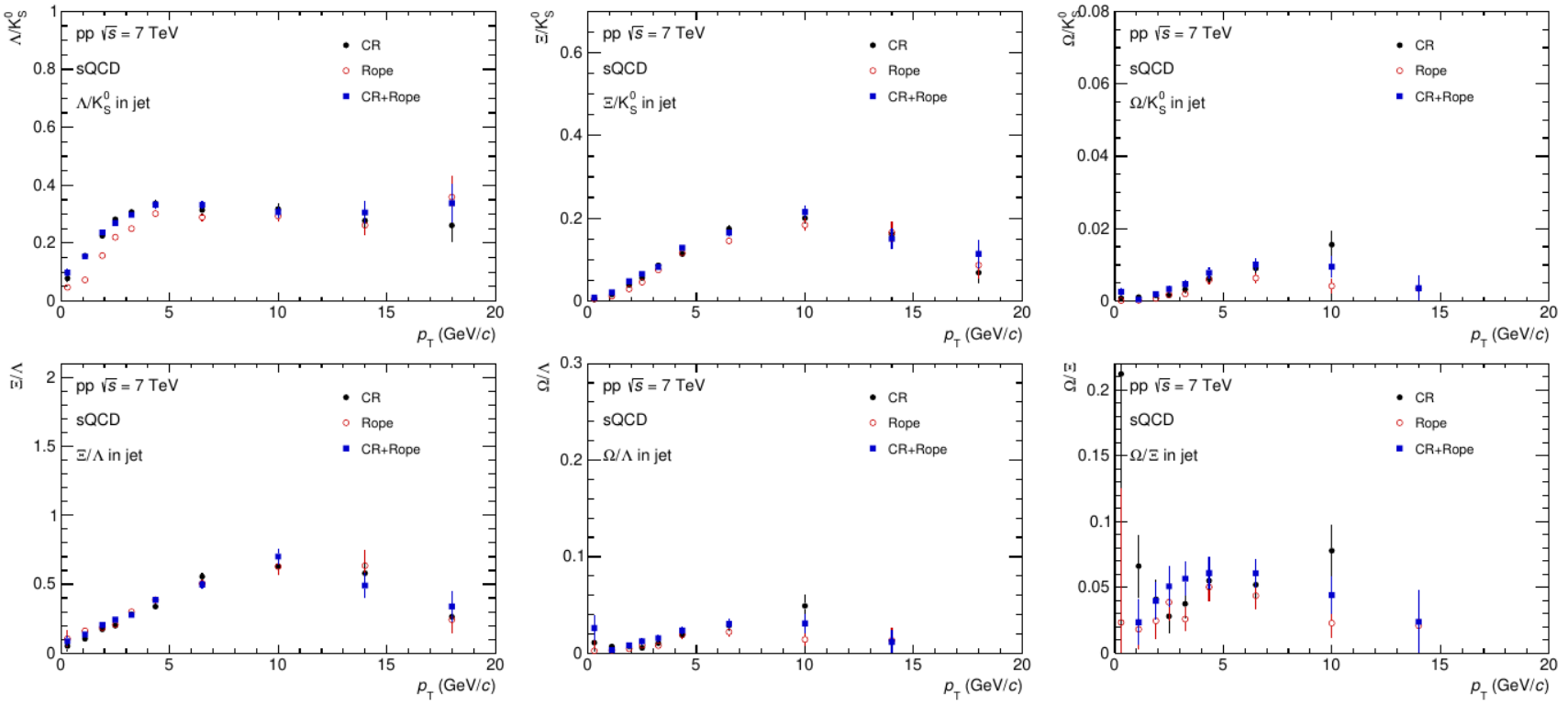
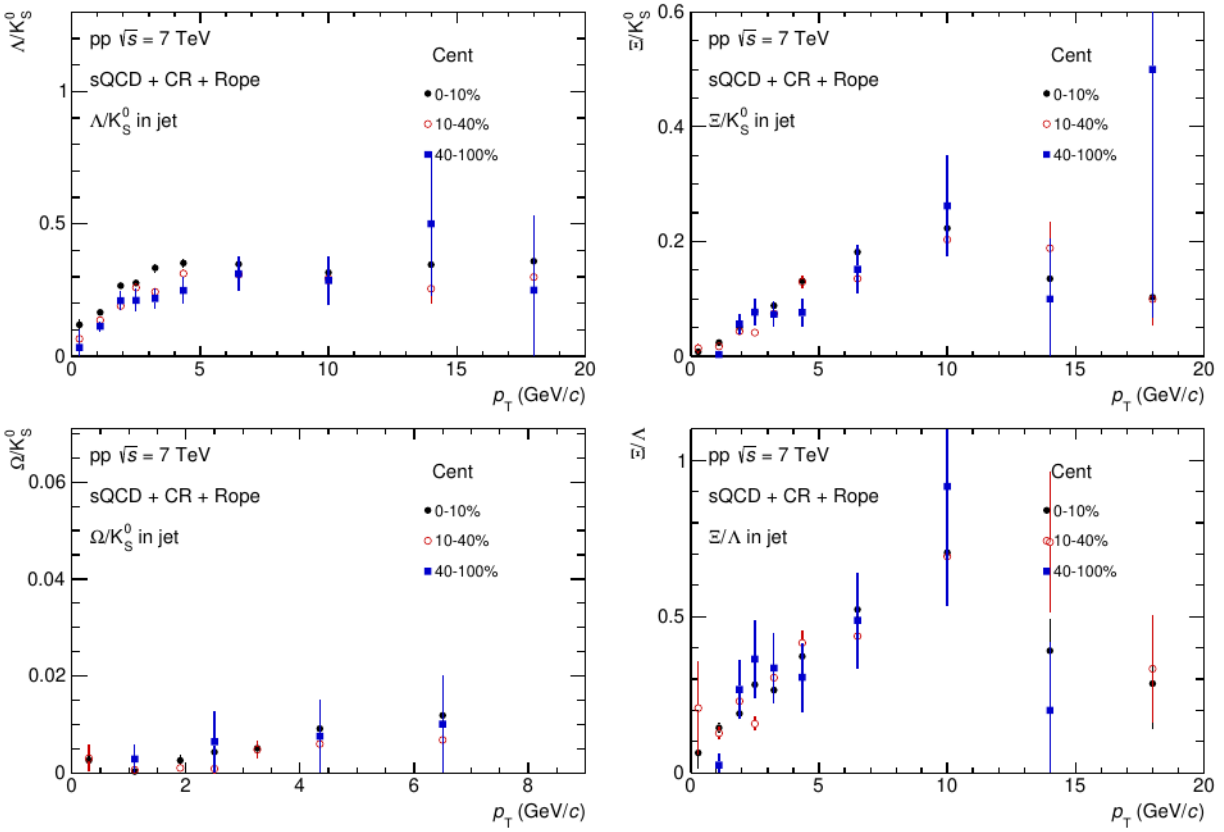


Figure 15: Baryon-to-meson ratio(top) and Baryon-to-meson ratio(bottom) in jets with p_T distribution.

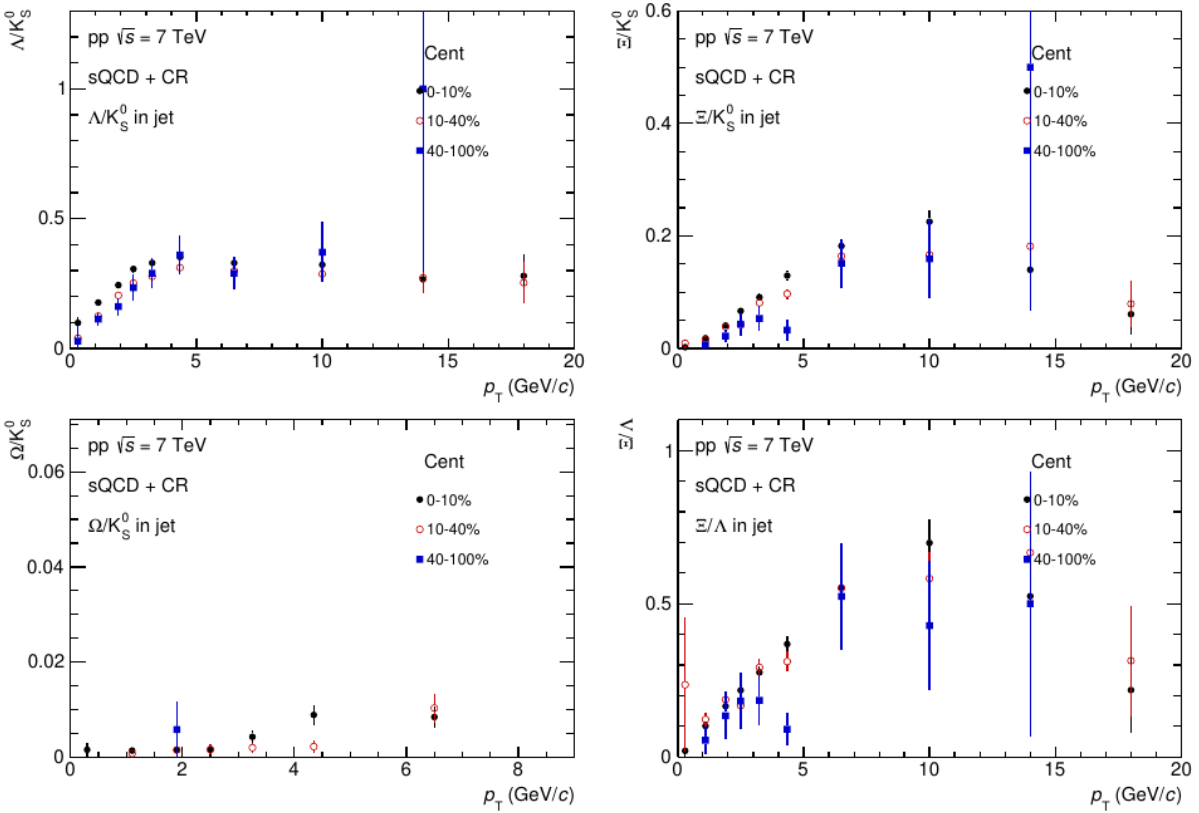
Particle ratio in jet with different centrality bin



CR+Rope

Figure 16: Baryon-to-meson ratio(top) and Baryon-to-meson ratio(bottom) in jets with p_T distribution in different centrality bins (CR + Rope).

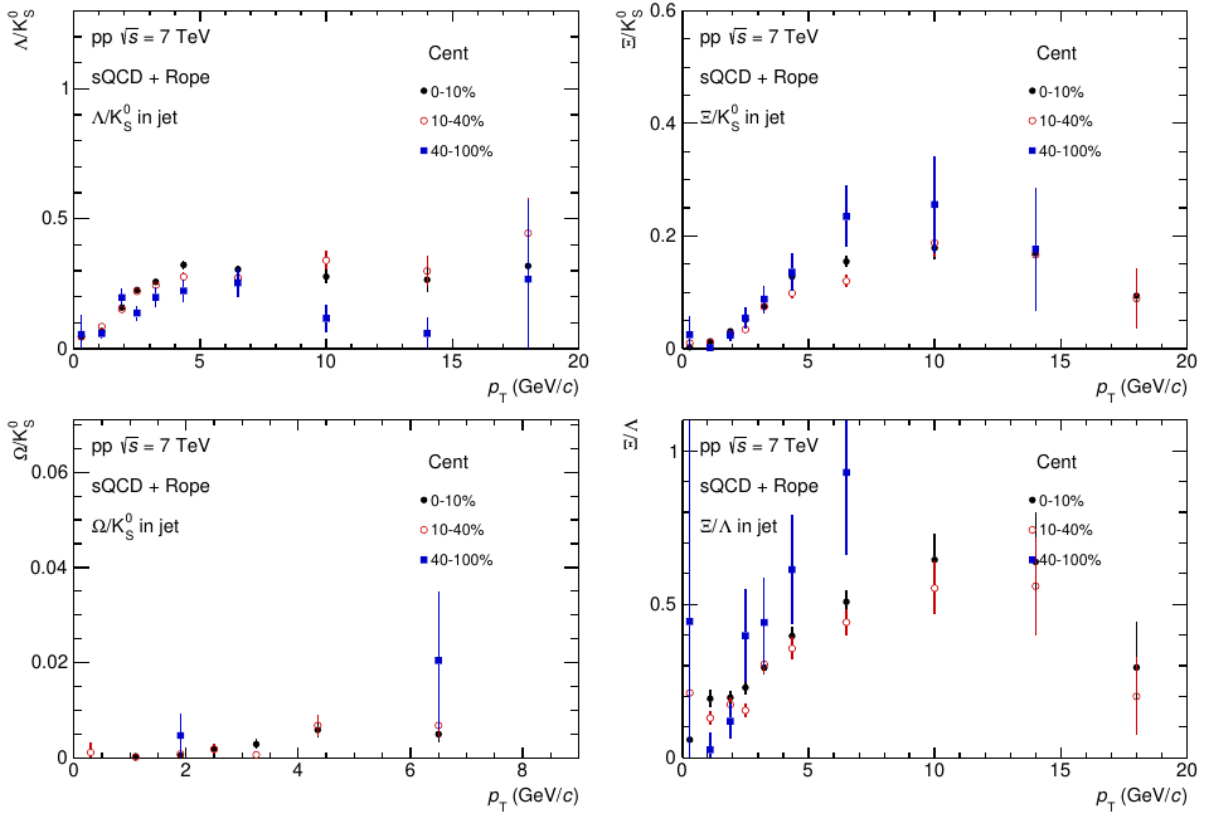
Particle ratio in jet with different centrality bin



CR

Figure 17: Baryon-to-meson ratio(top) and Baryon-to-meson ratio(bottom) in jets with p_T distribution in different centrality bins (CR).

Particle ratio in jet with different centrality bin



Rope

Figure 18: Baryon-to-meson ratio(top) and Baryon-to-meson ratio(bottom) in jets with p_T distribution in different centrality bins (Rope).