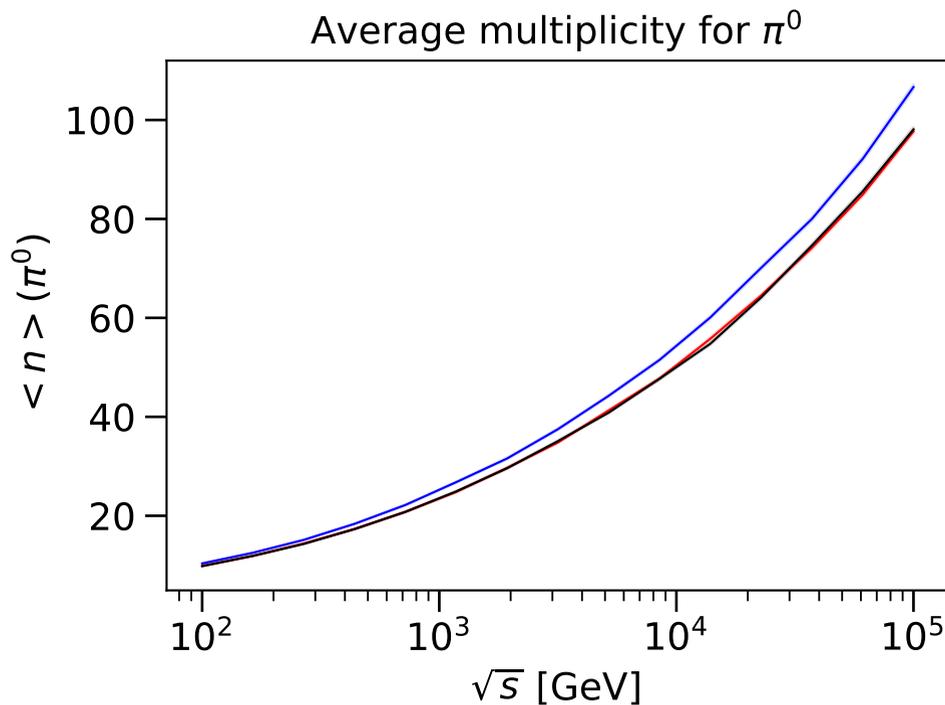
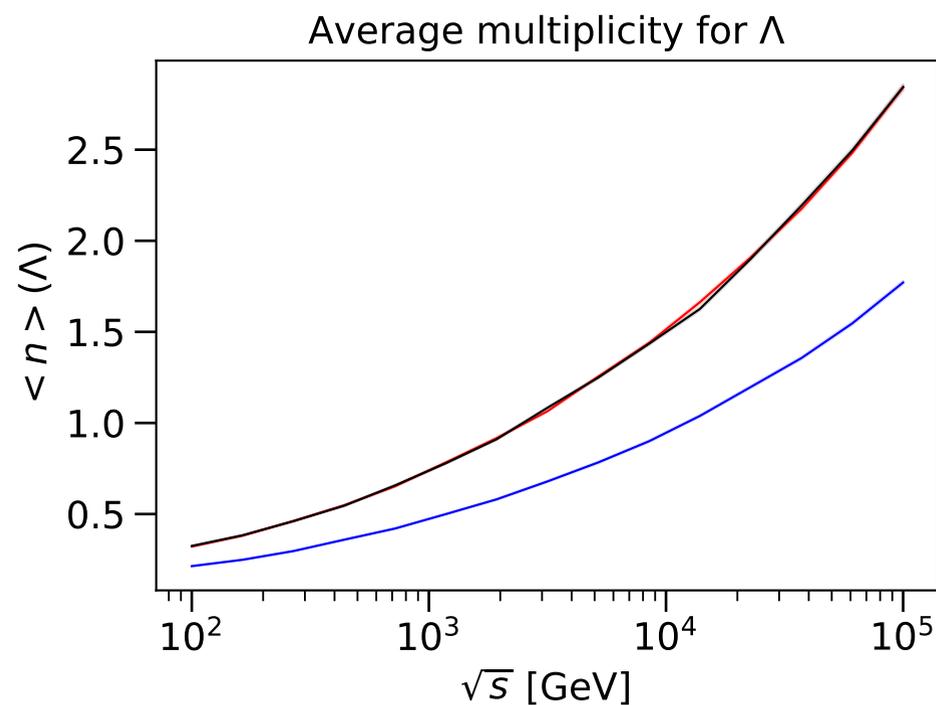
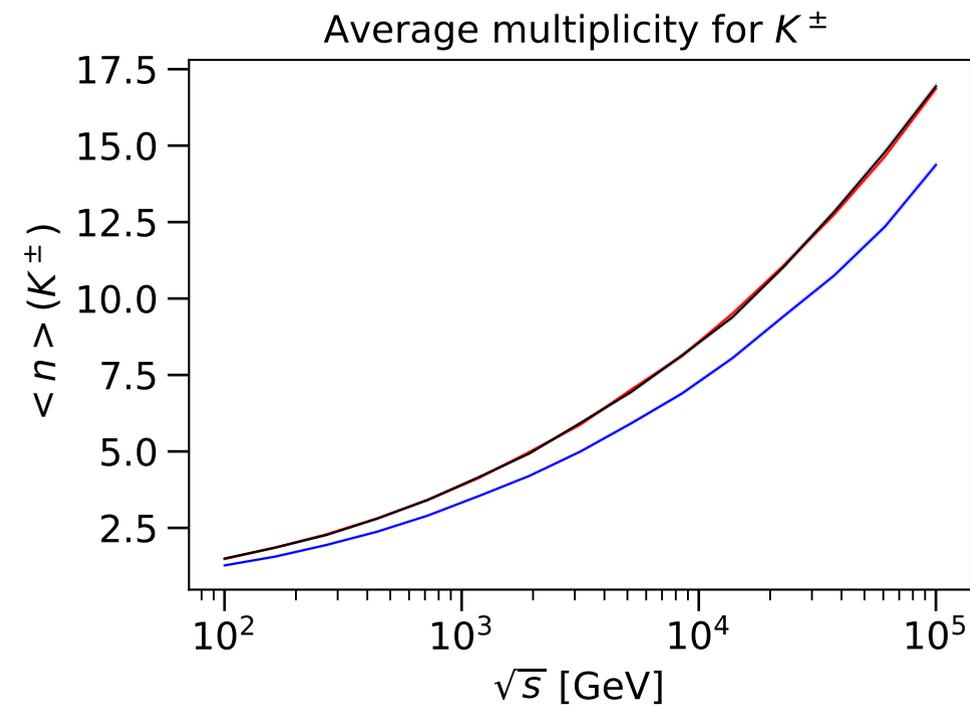
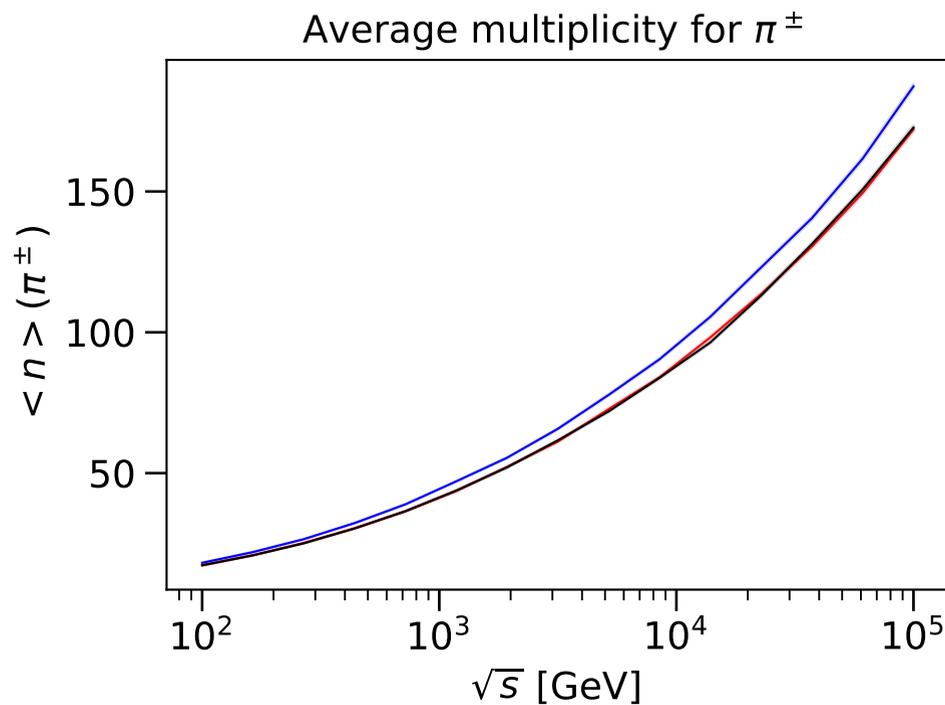
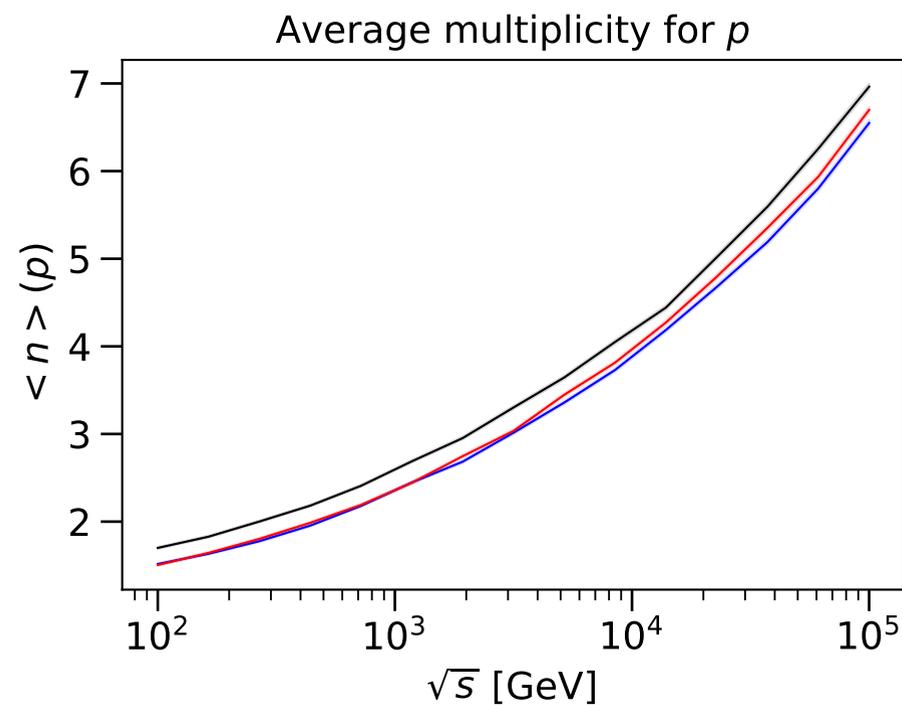
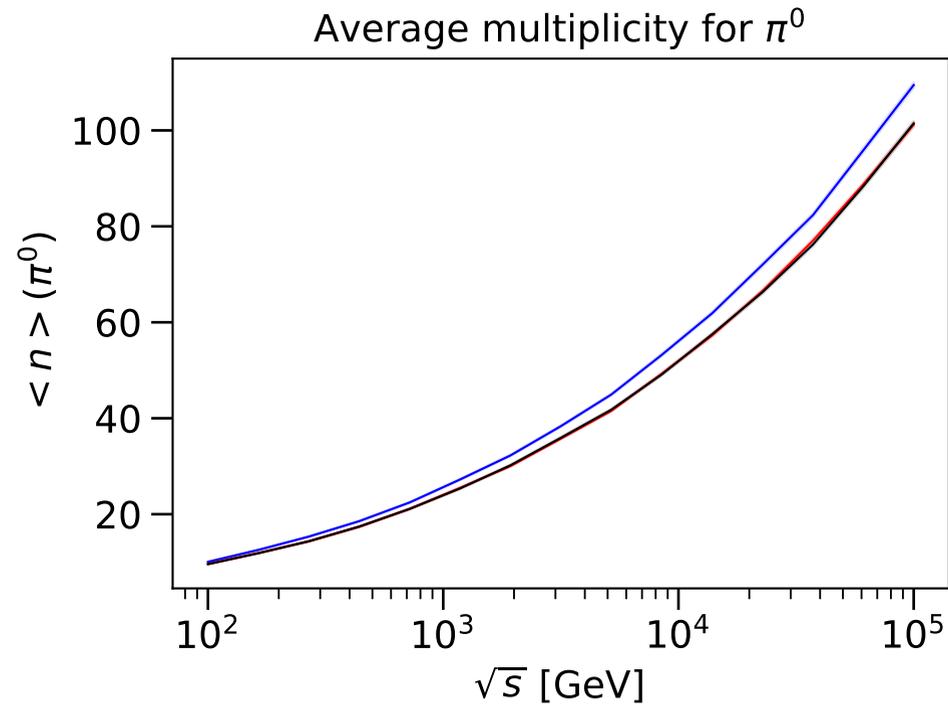
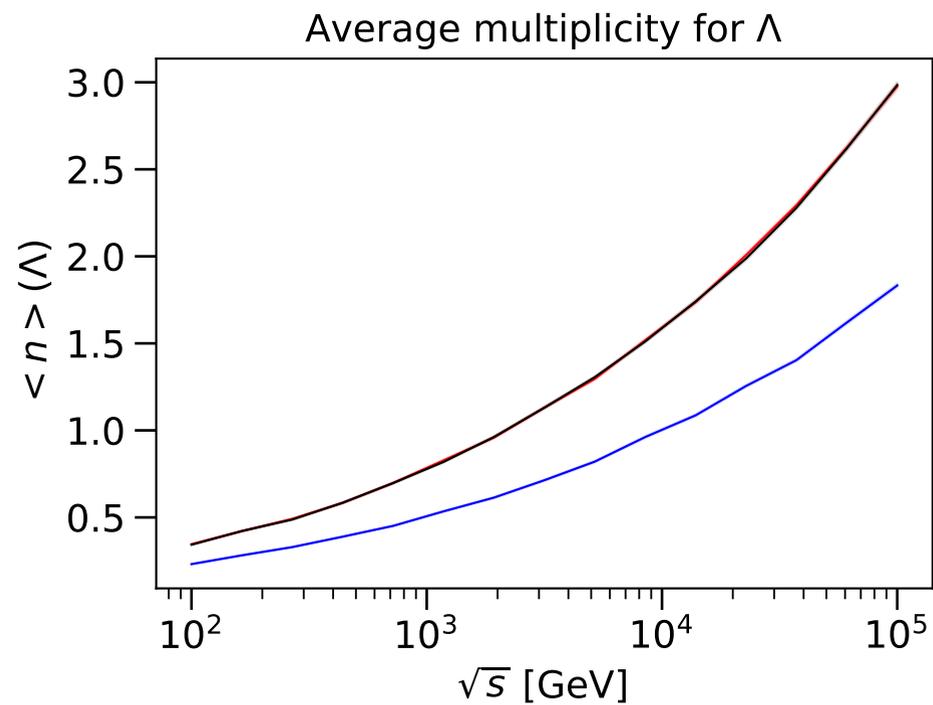
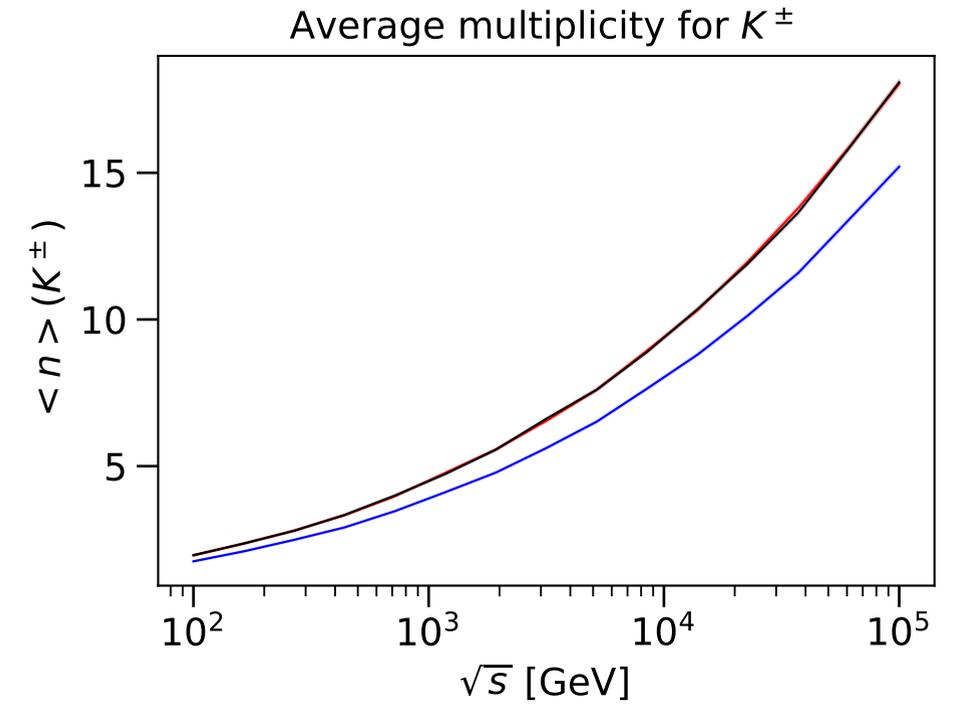
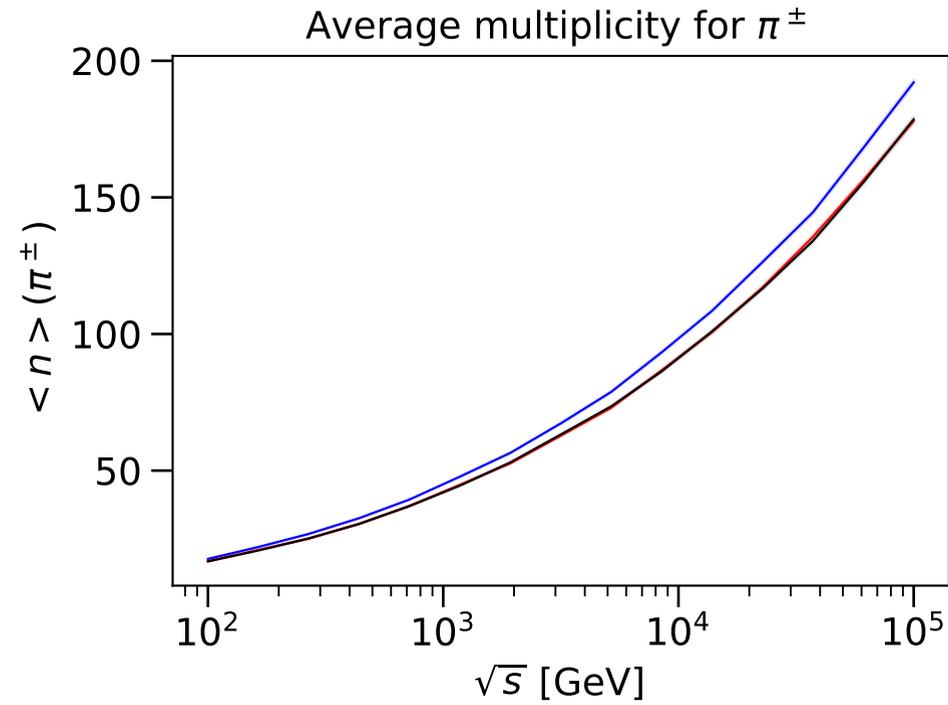
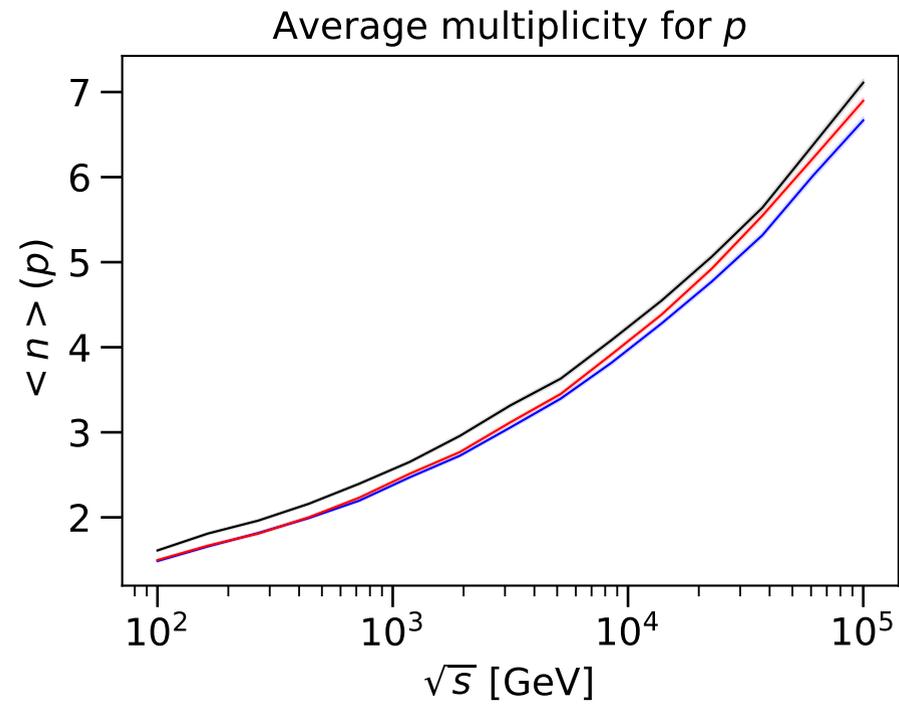


Atmospheric cascade related

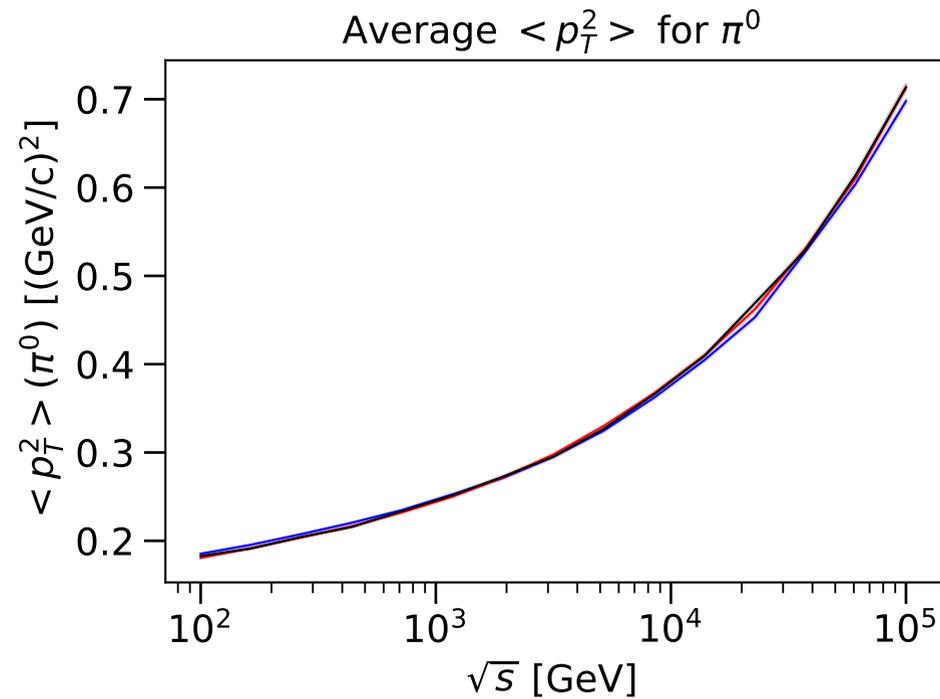
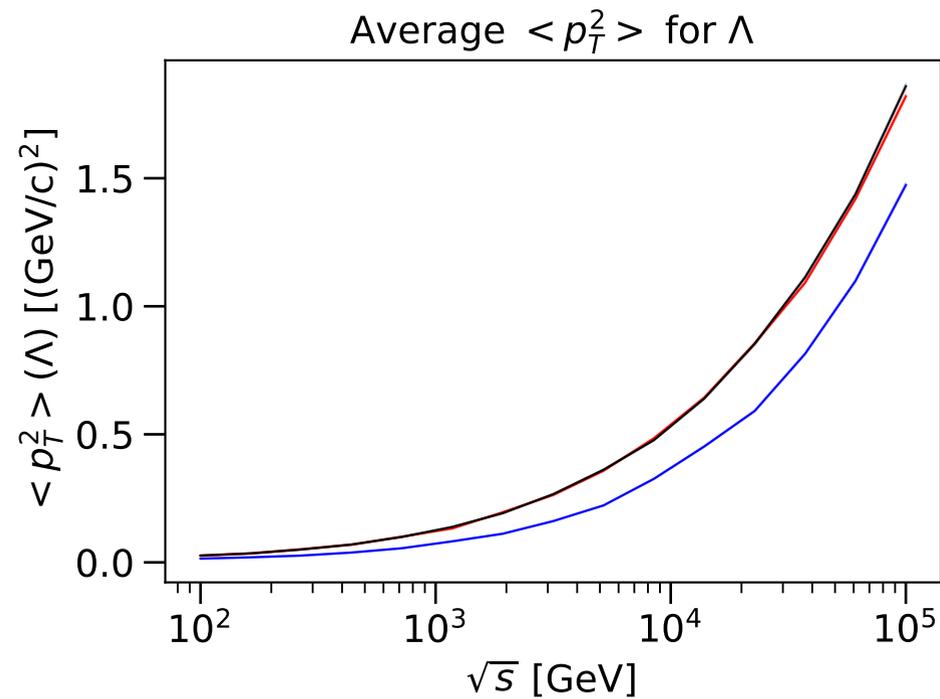
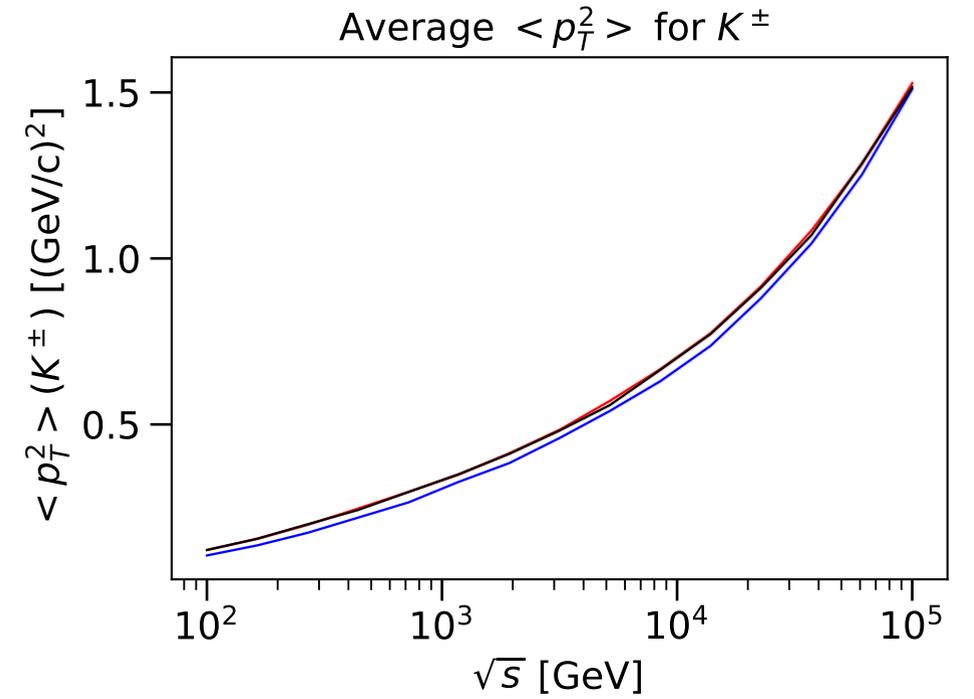
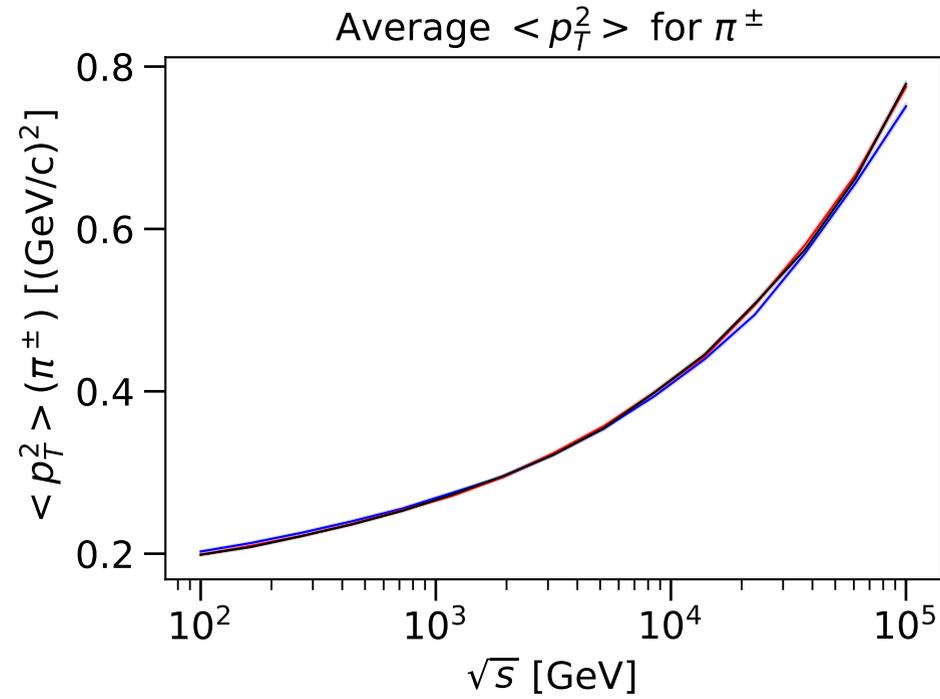
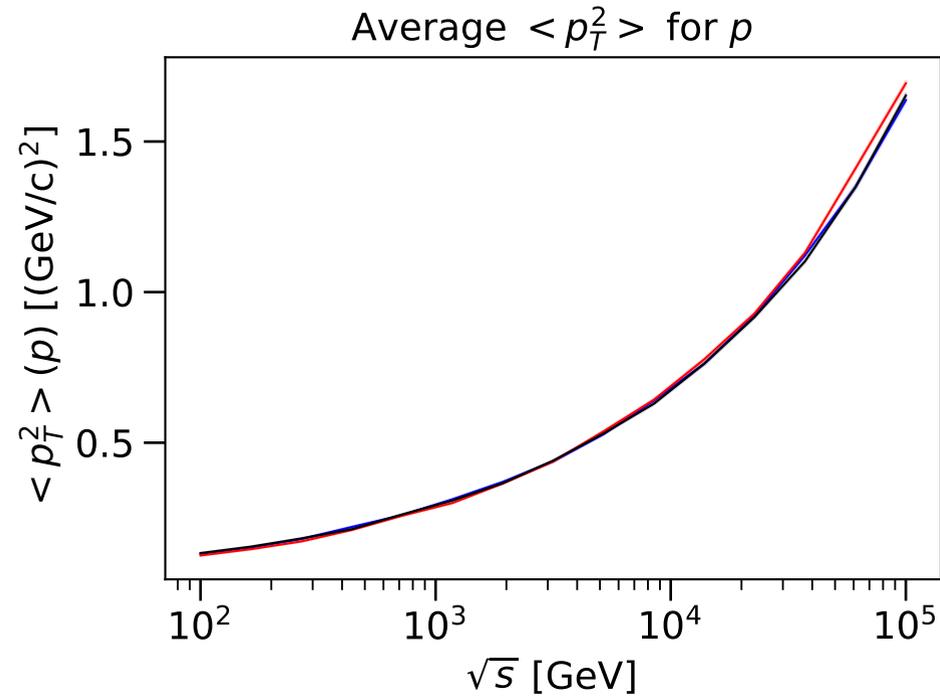
Average Multiplicity in piAir collisions



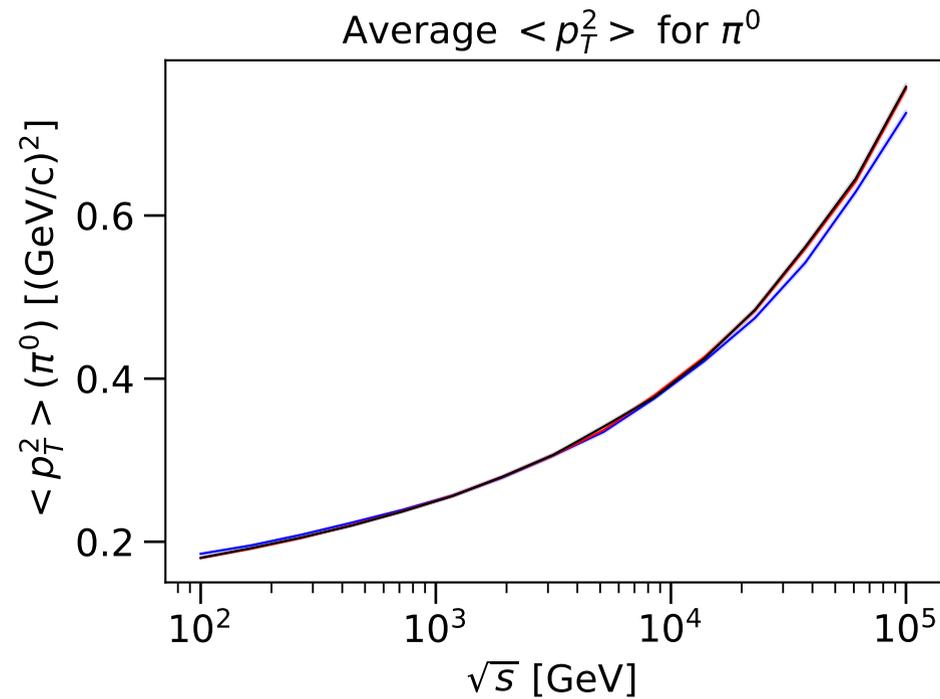
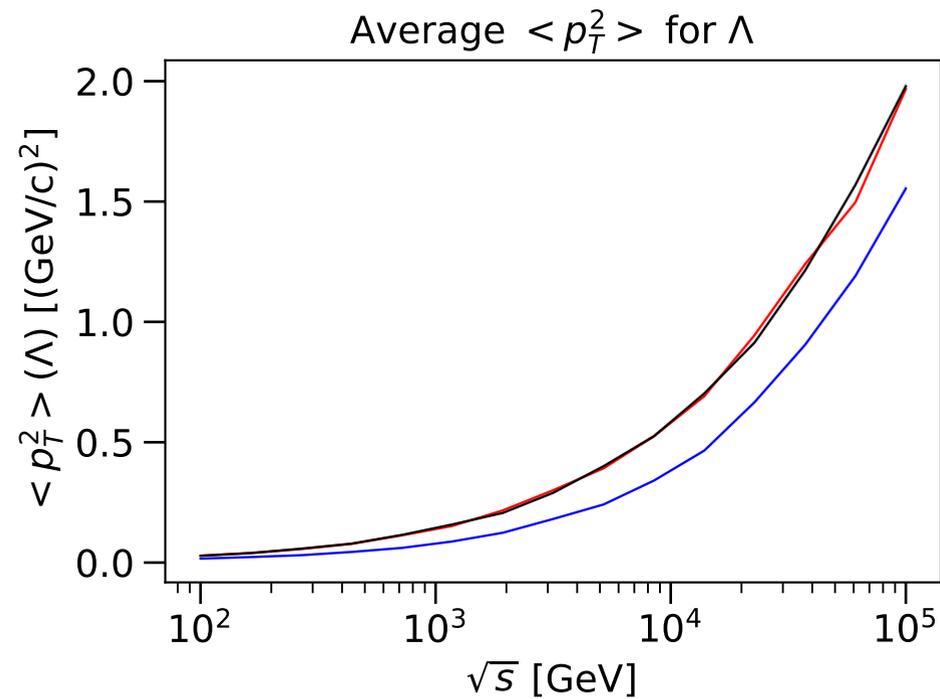
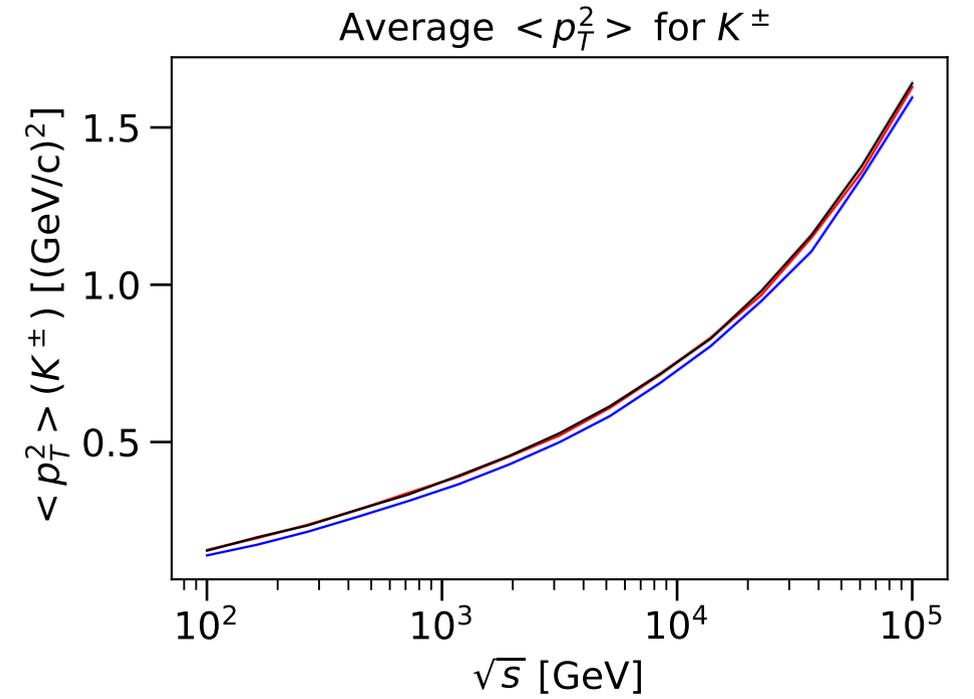
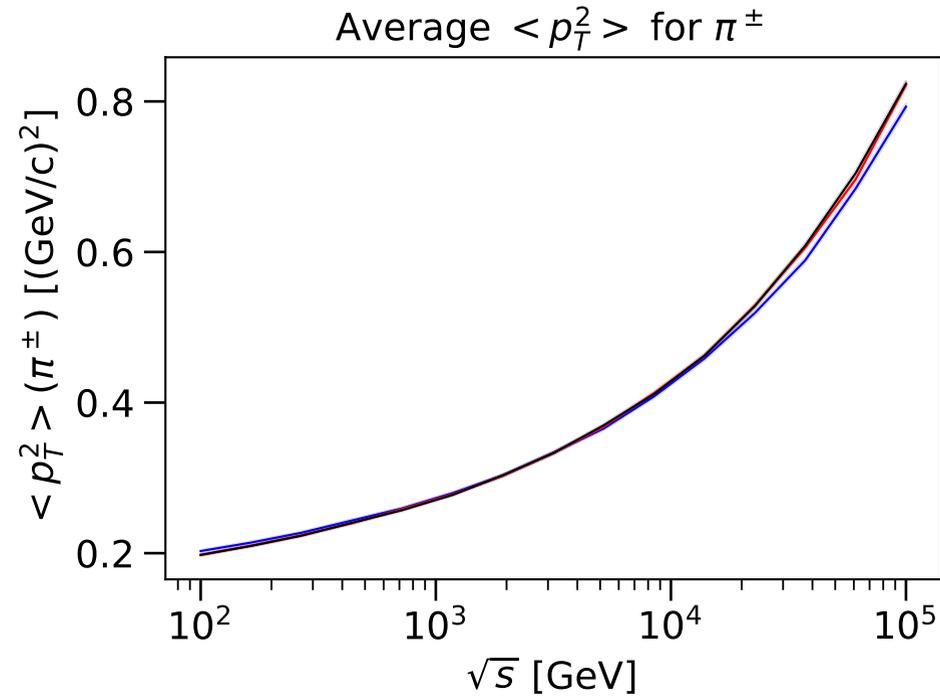
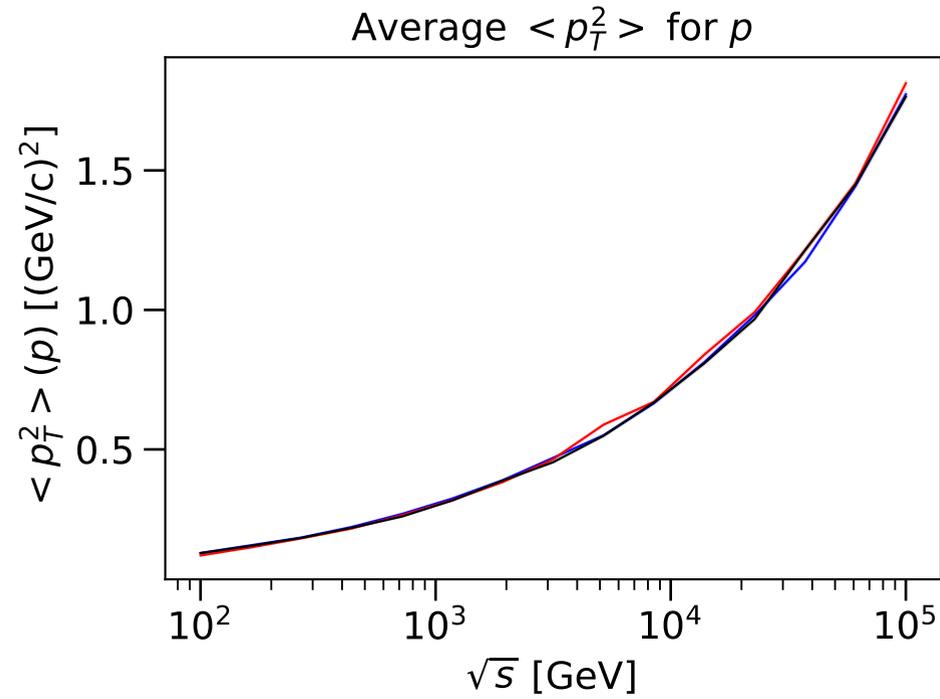
Average Multiplicity in kAir collisions



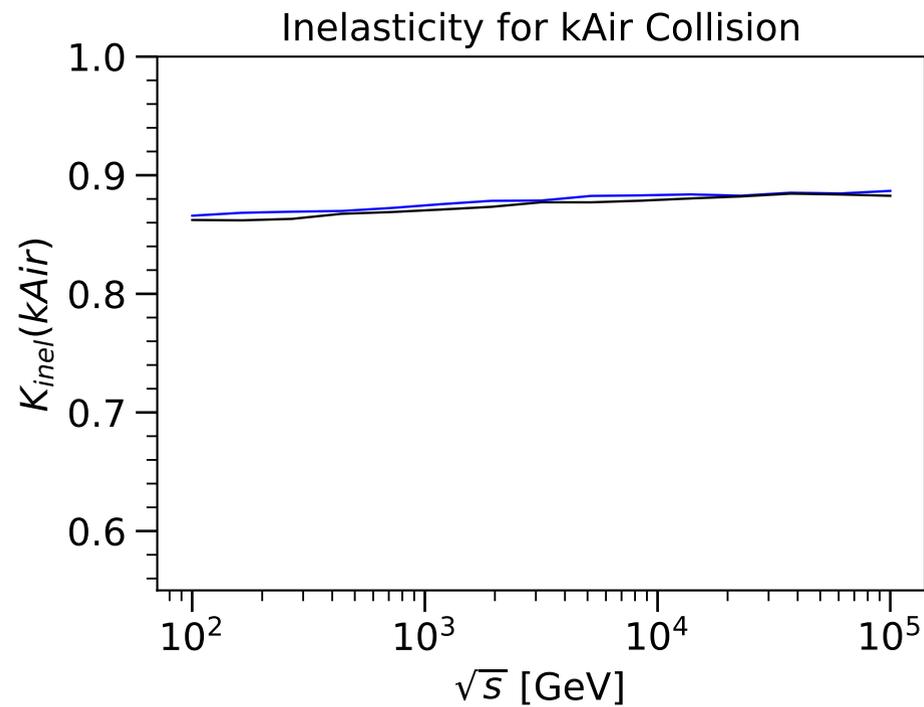
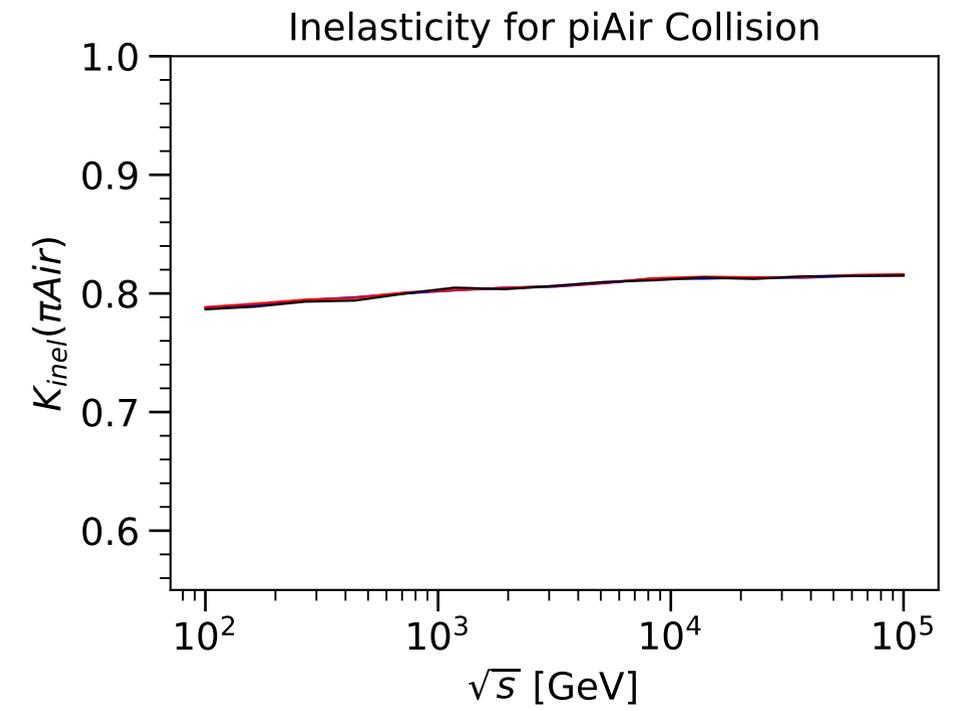
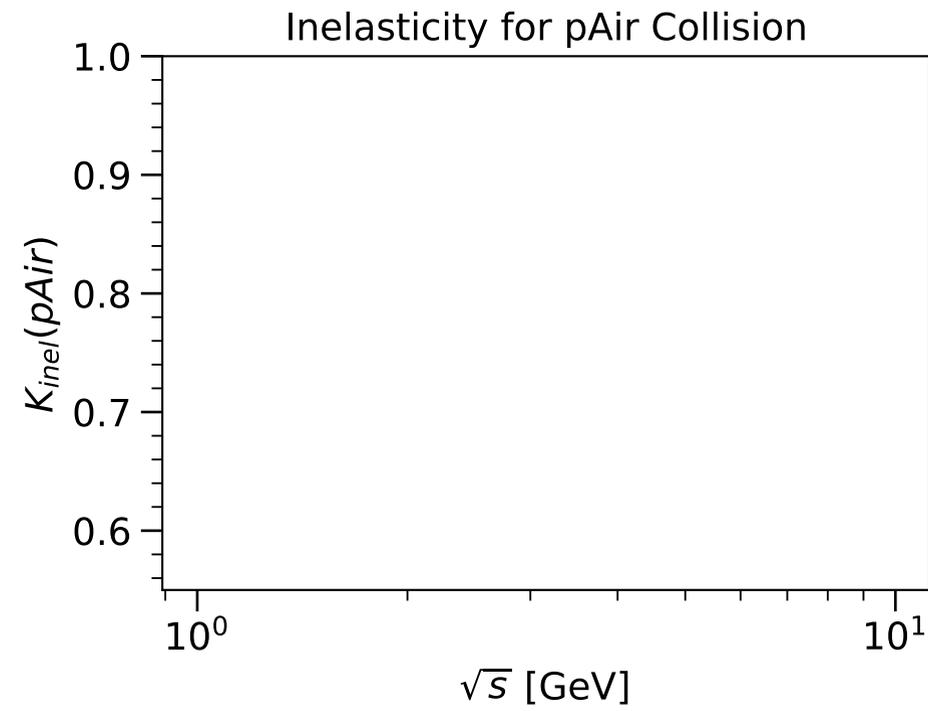
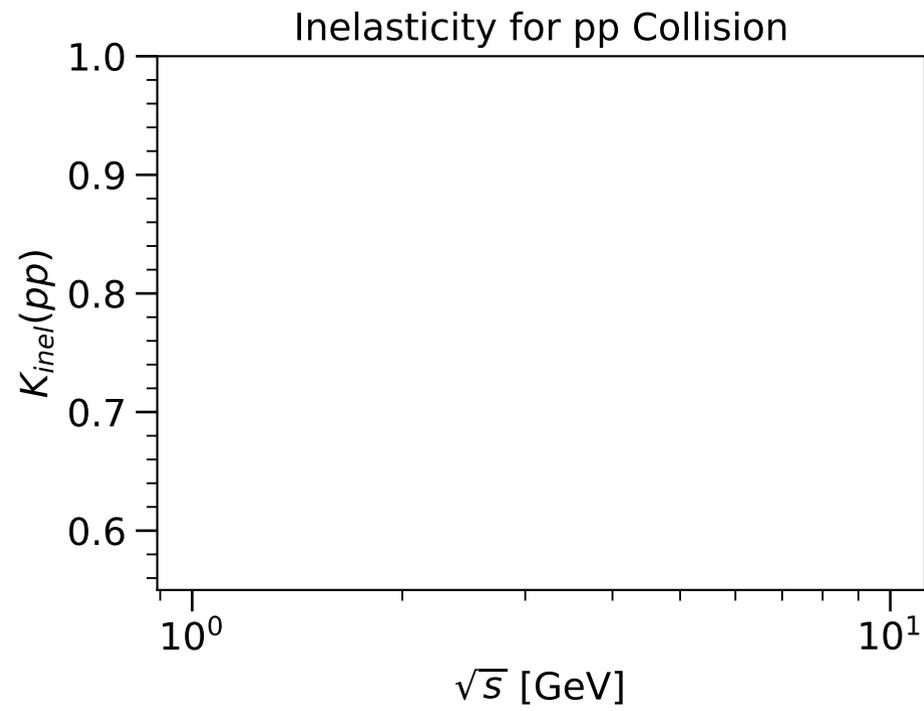
Average p_T^2 in piAir collisions



Average p_T^2 in kAir collisions

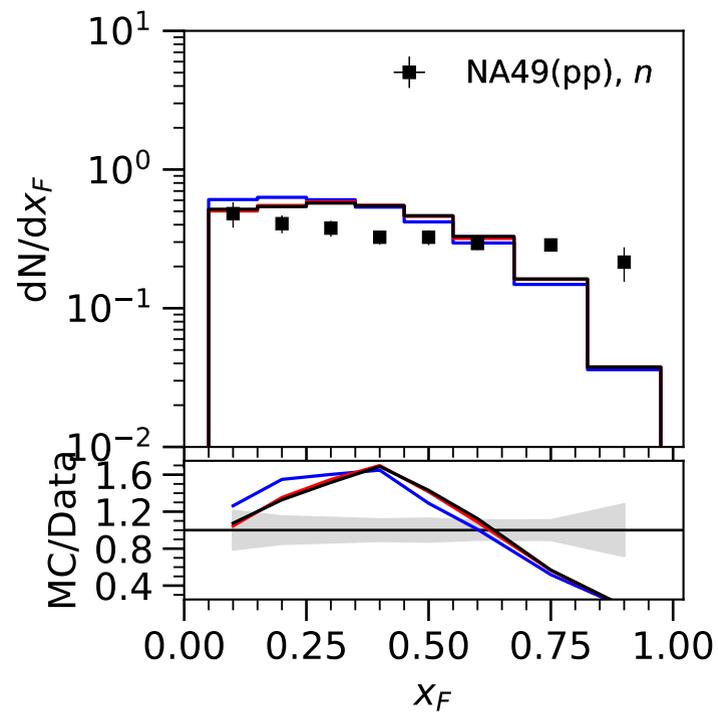
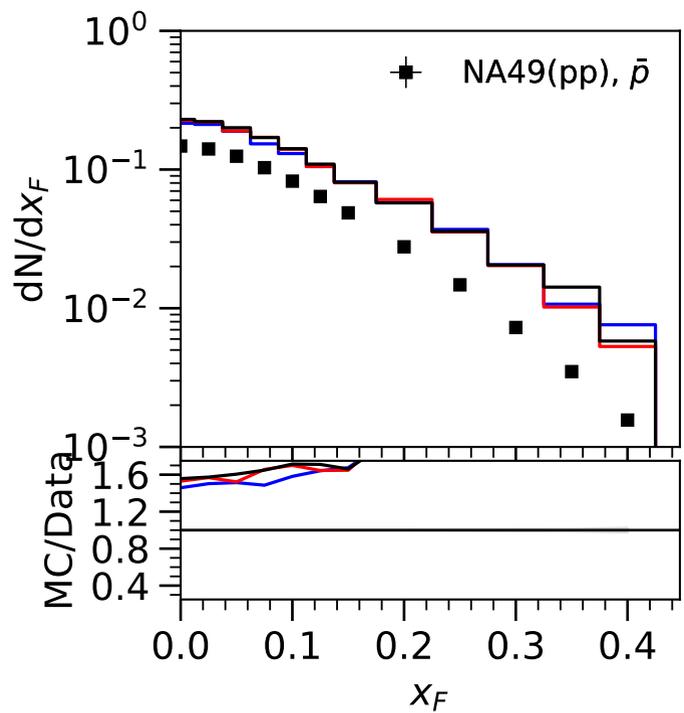
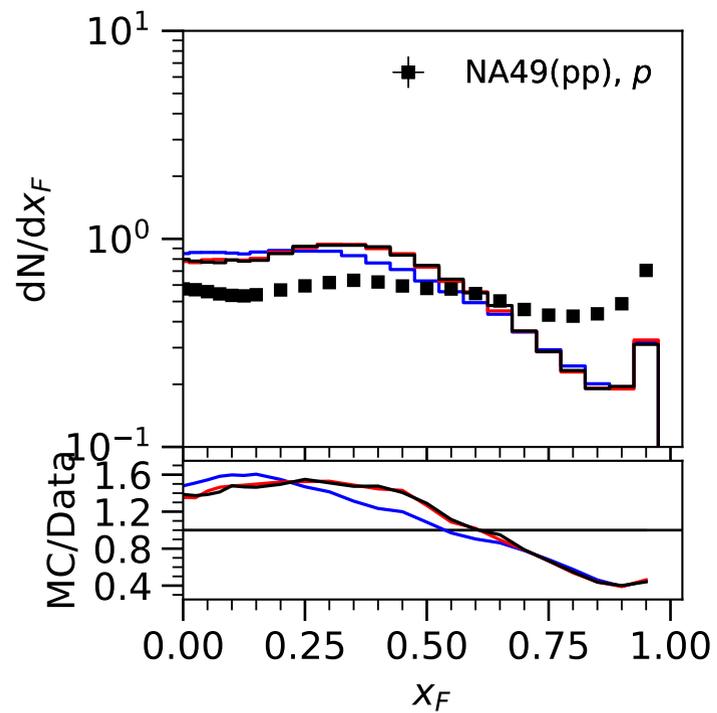
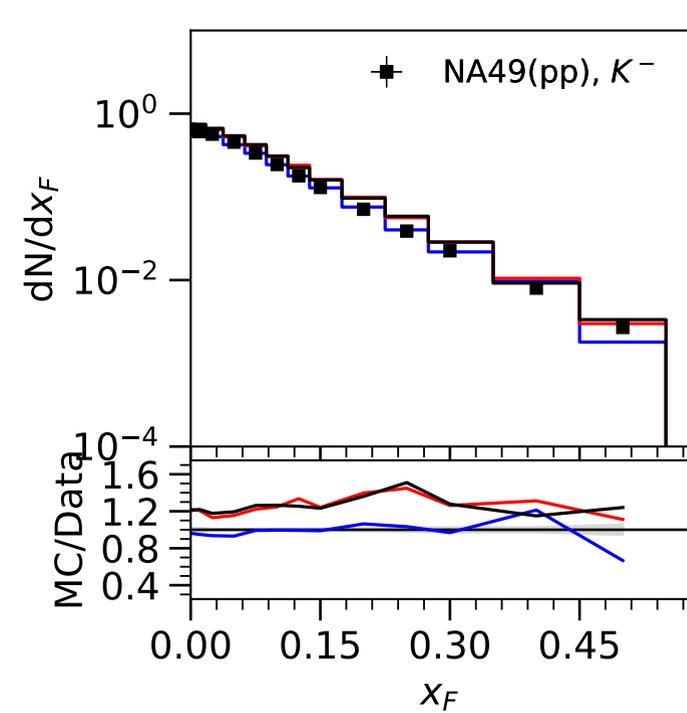
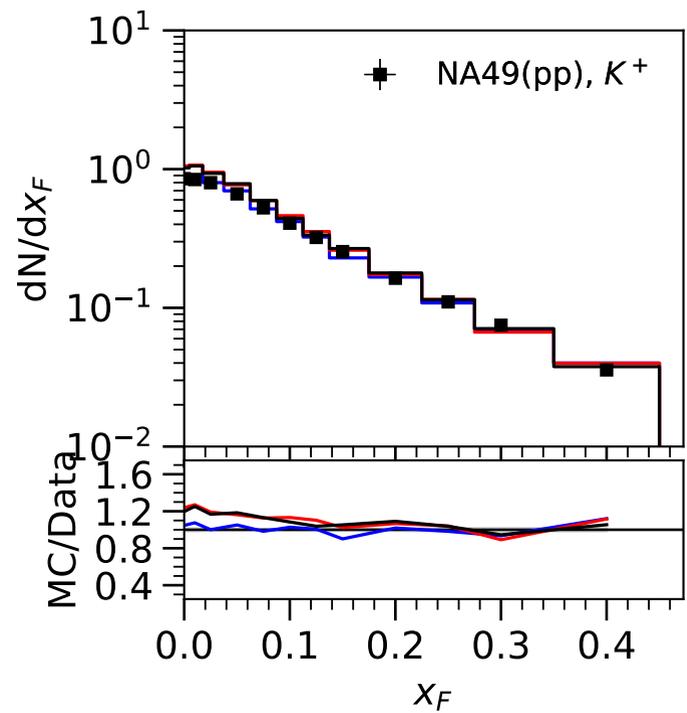
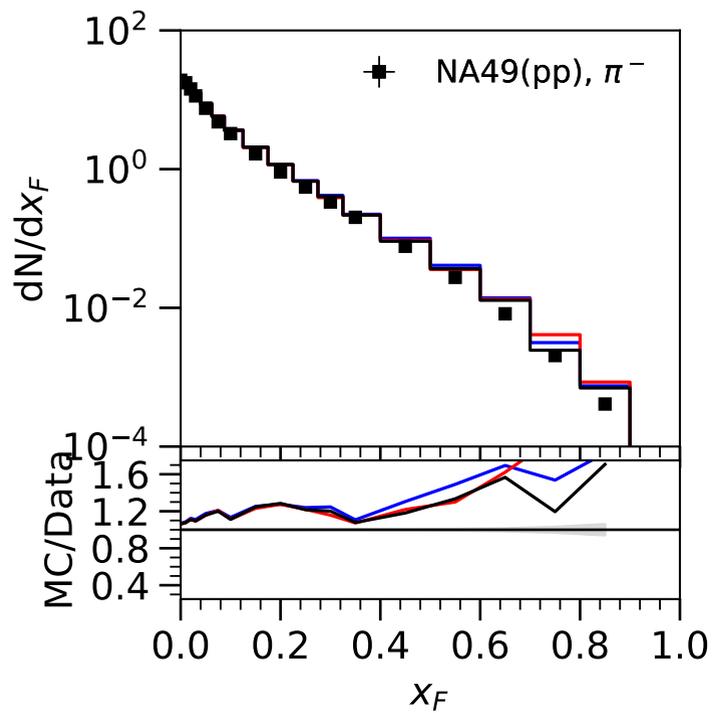
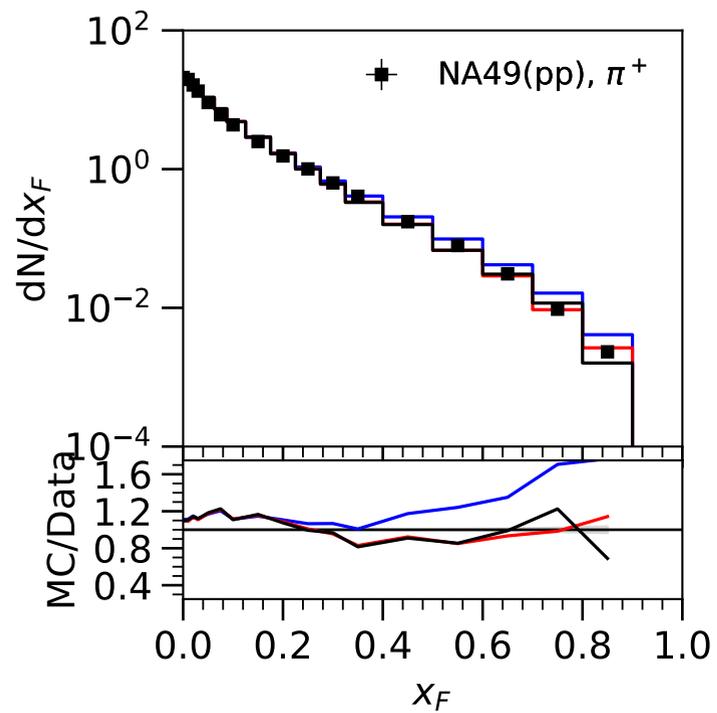


Inelasticity in pp, pAir, π Air, and kAir Collisions

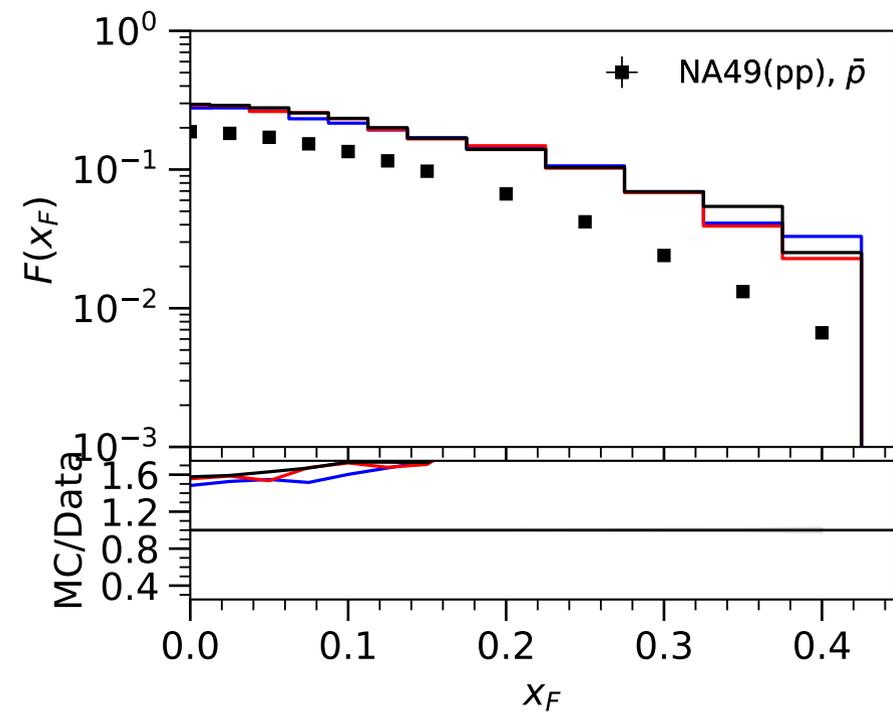
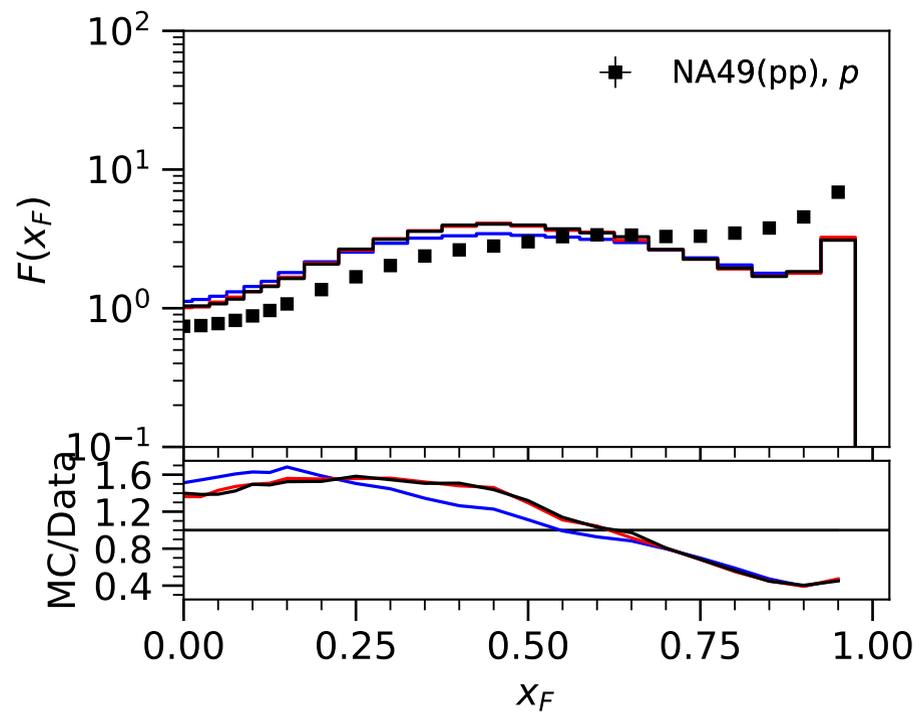
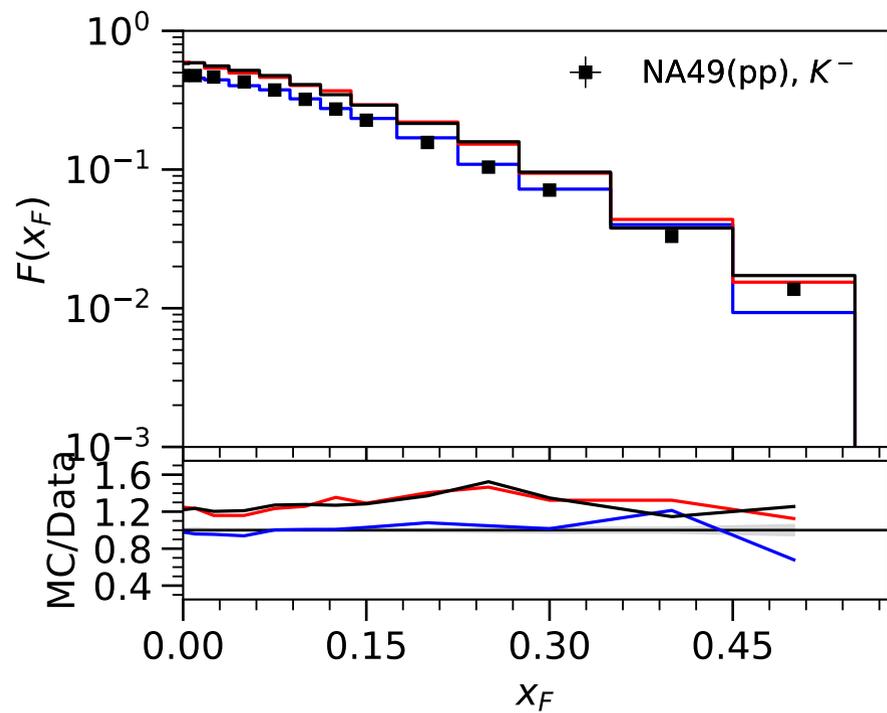
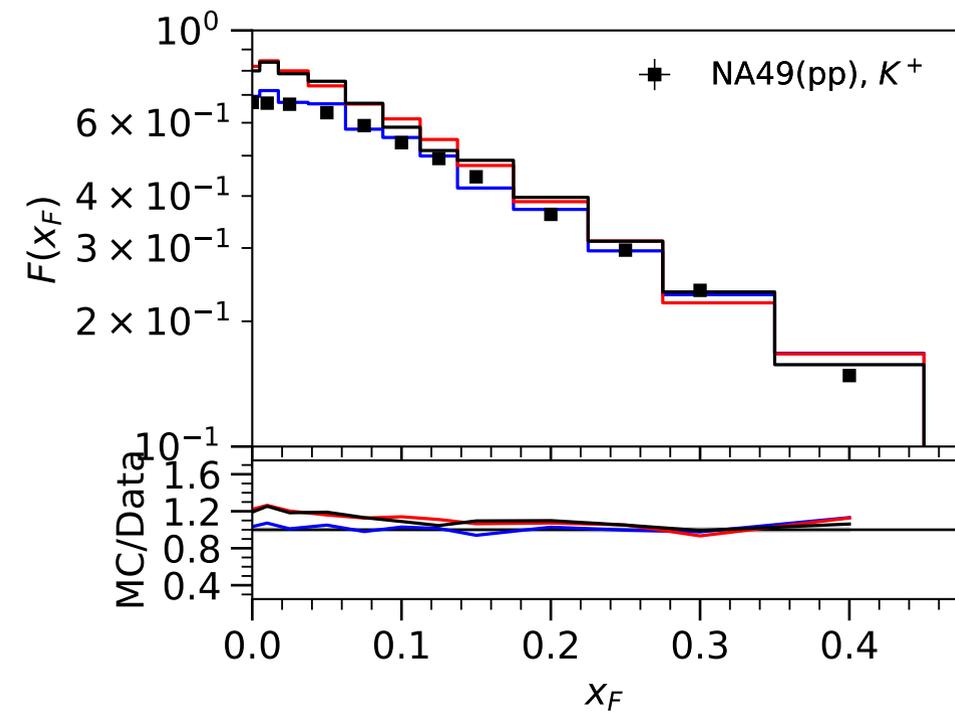
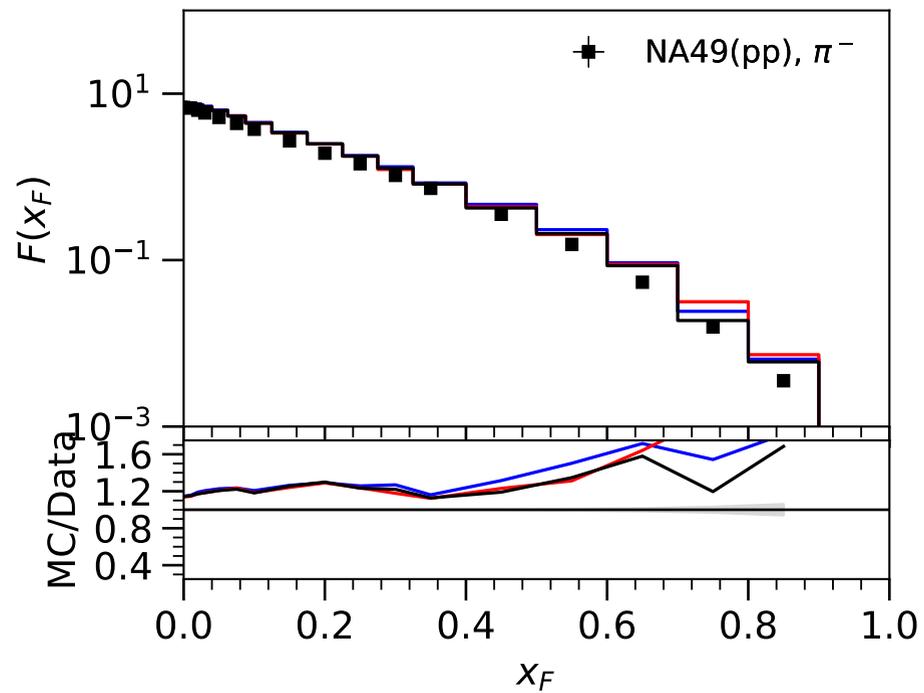
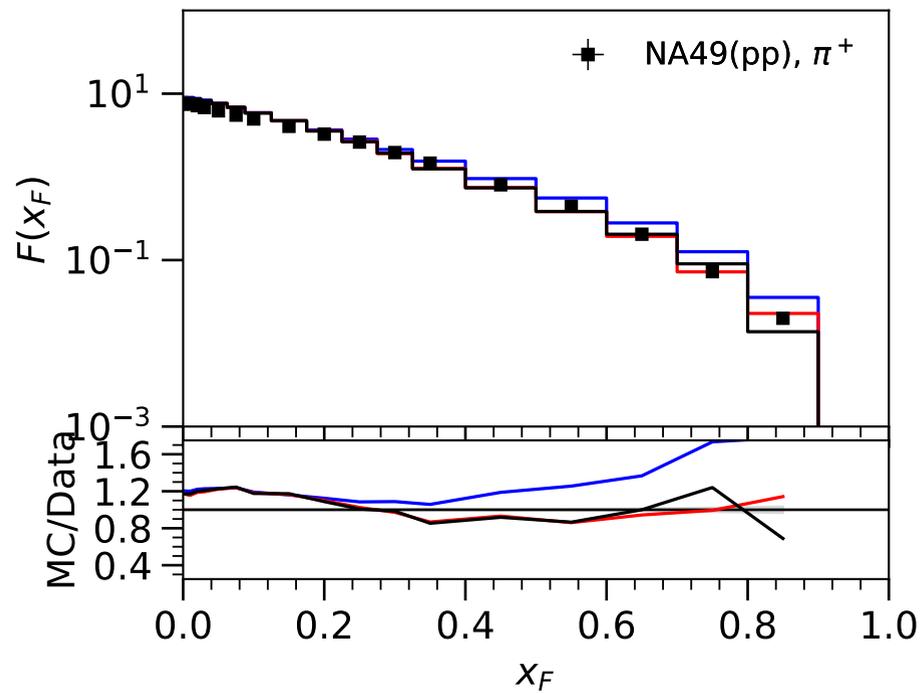


NA49: proton-proton

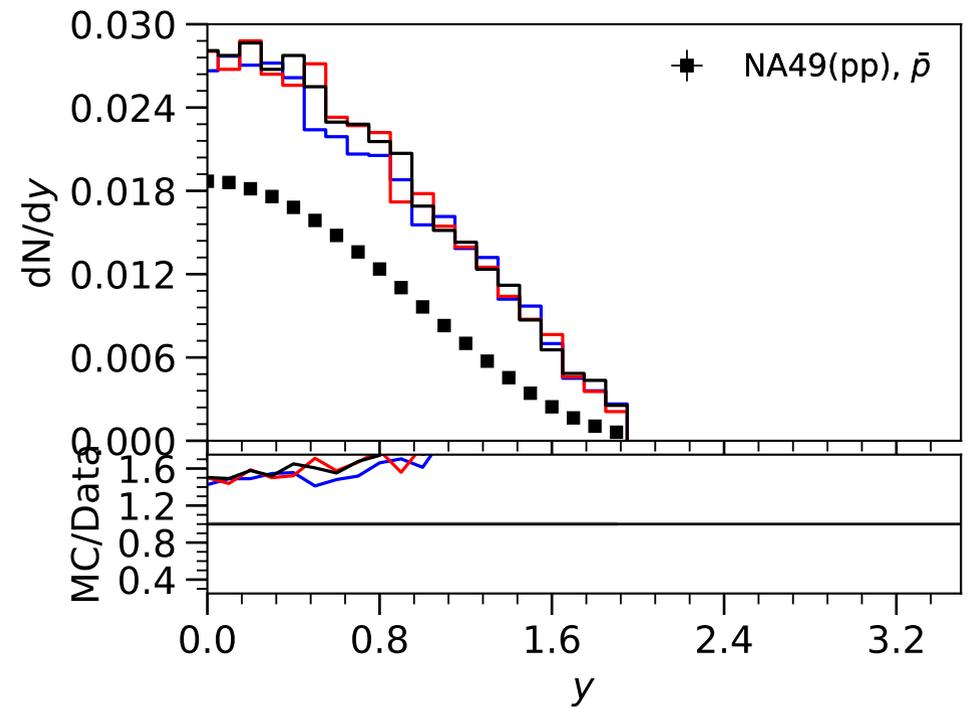
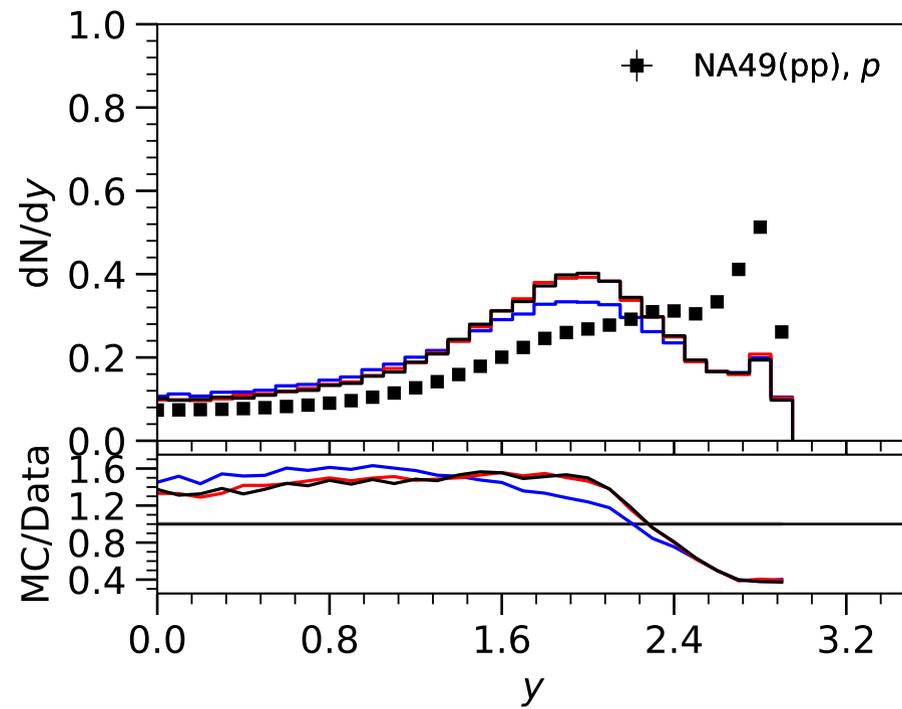
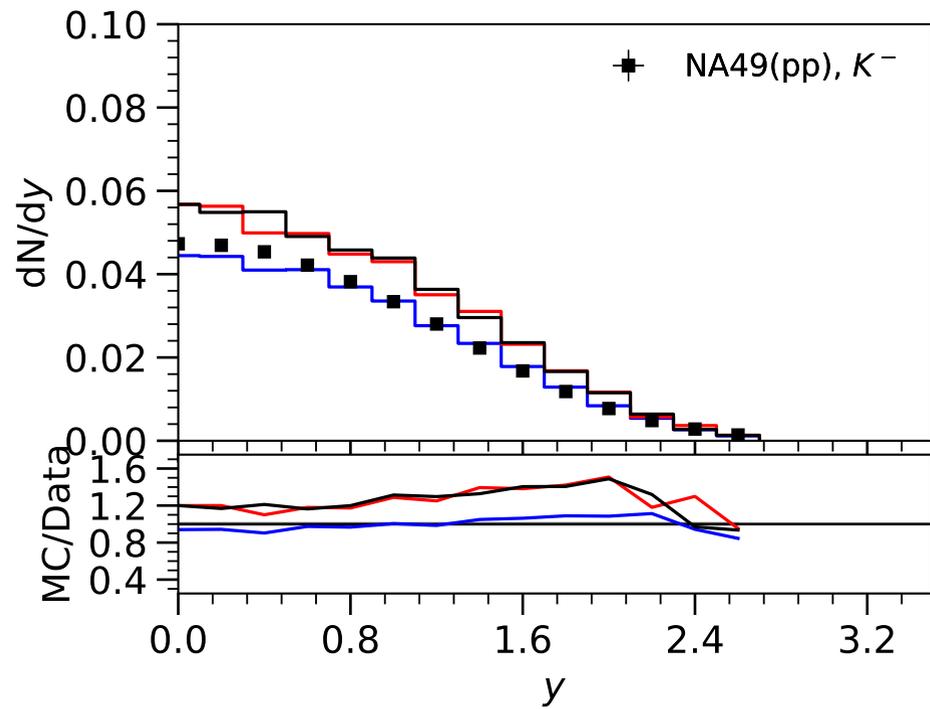
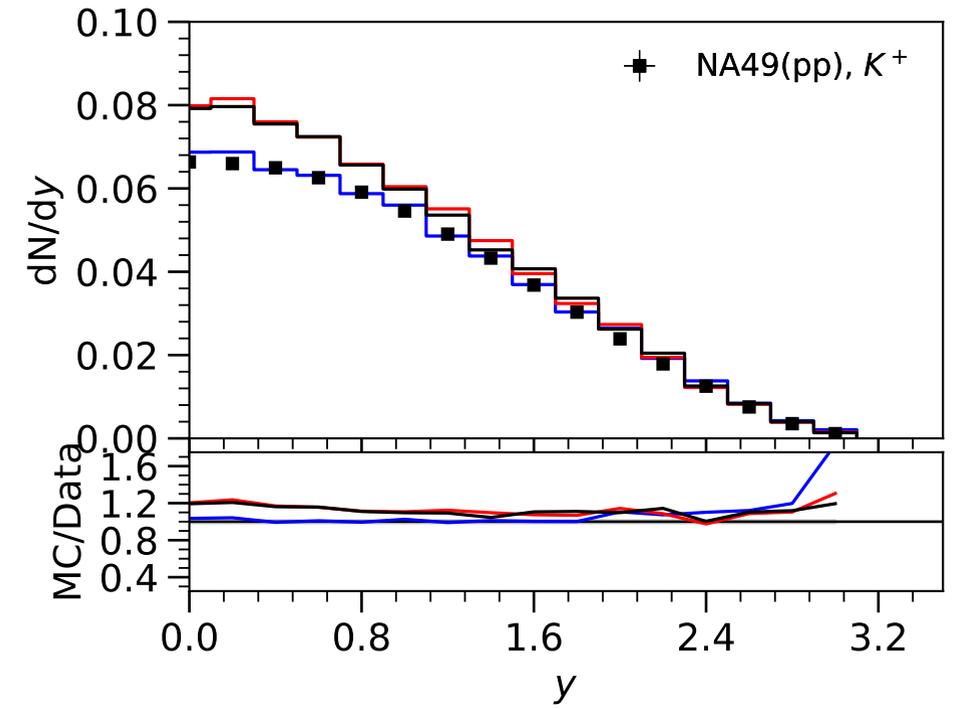
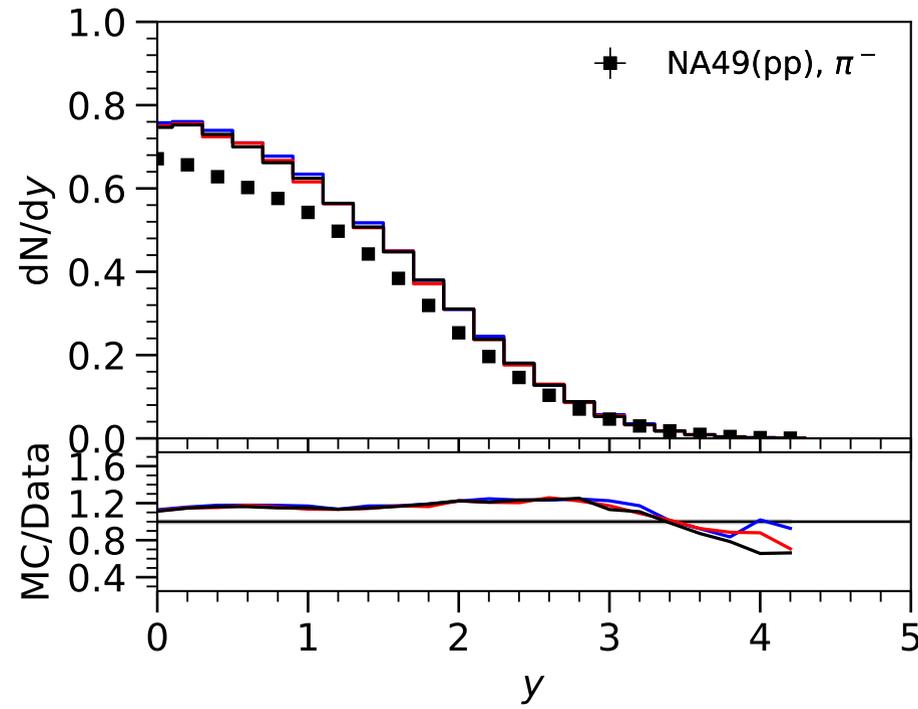
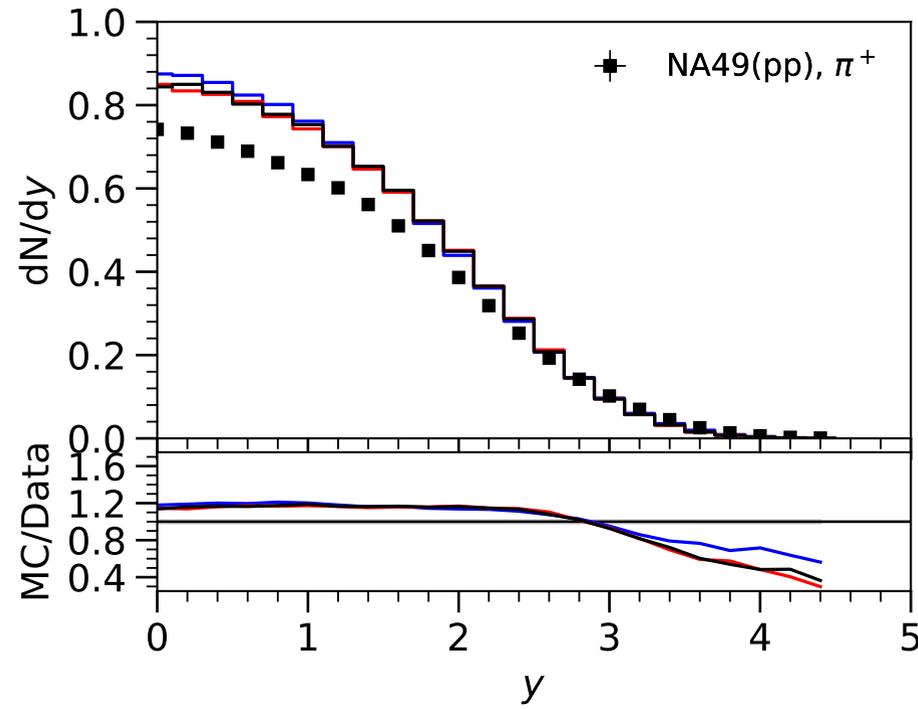
x_F - NA49 pp collisions at 158 GeV



$F(x_F)$ - NA49 pp collisions at 158 GeV

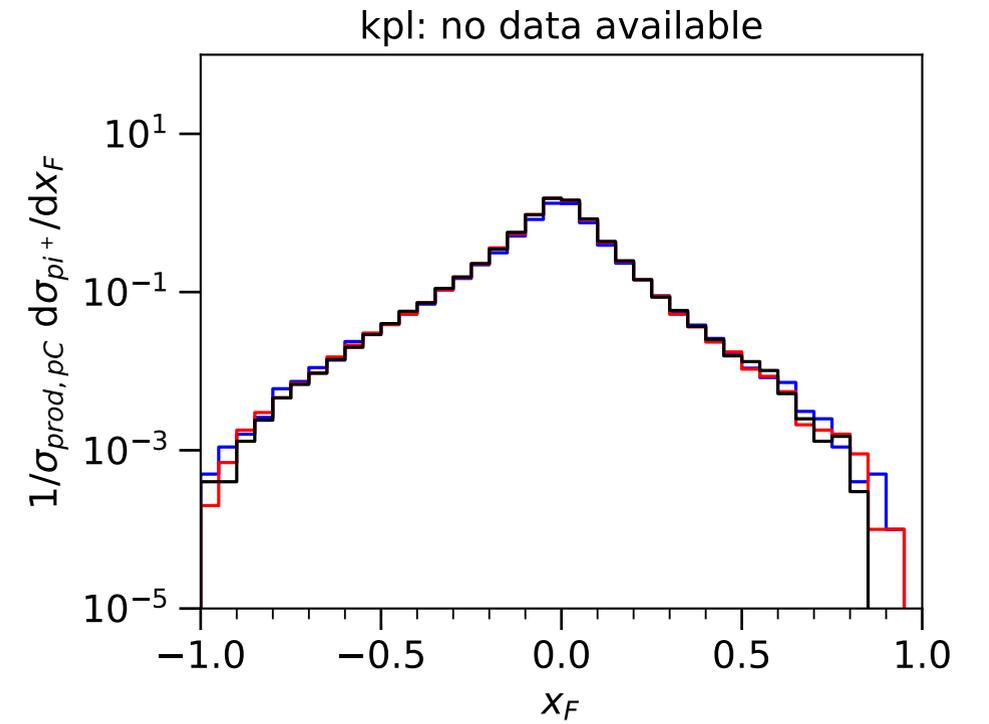
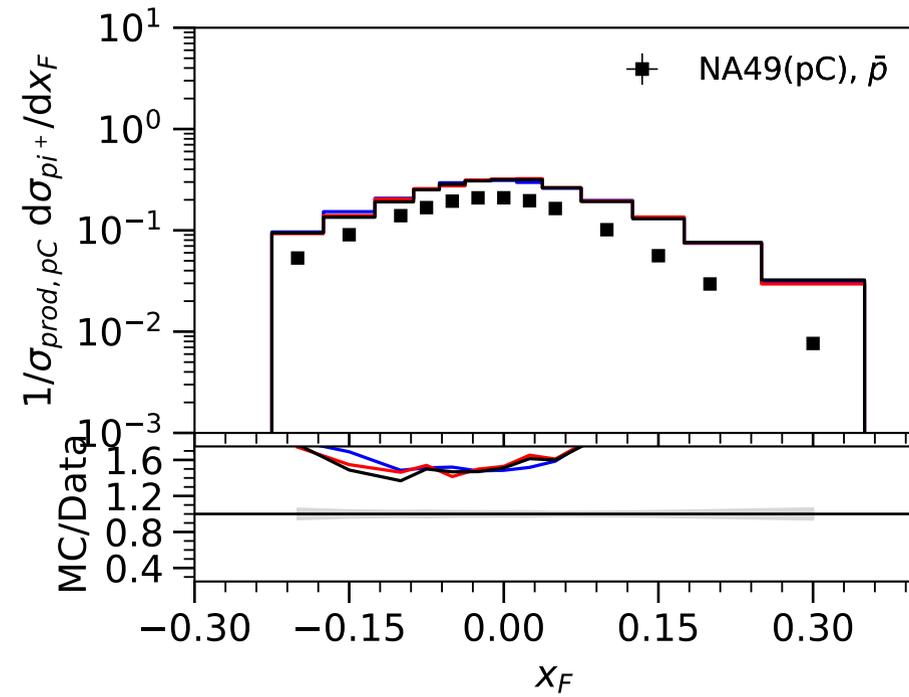
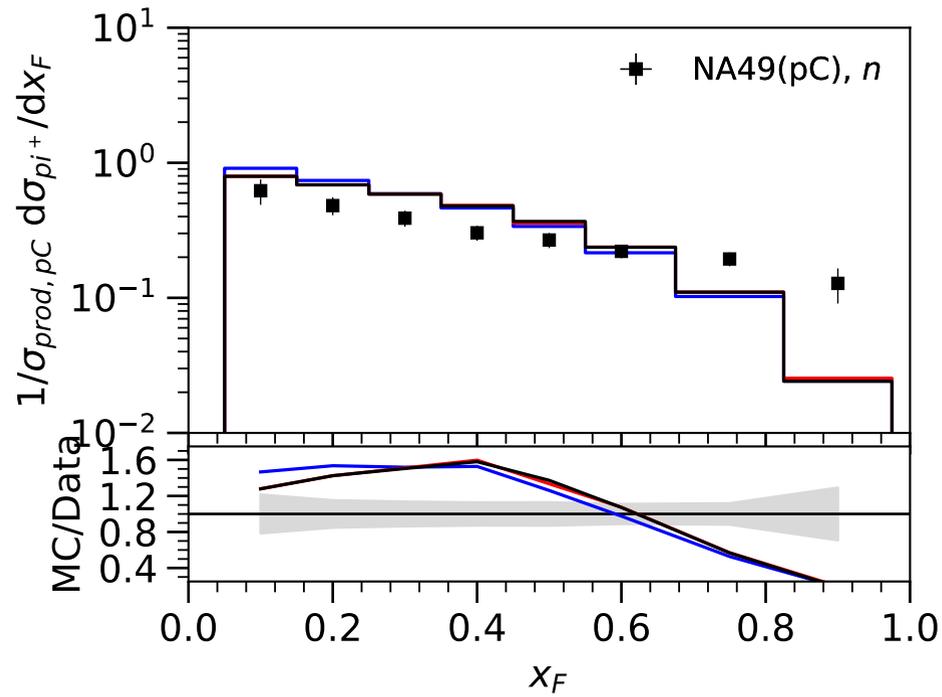
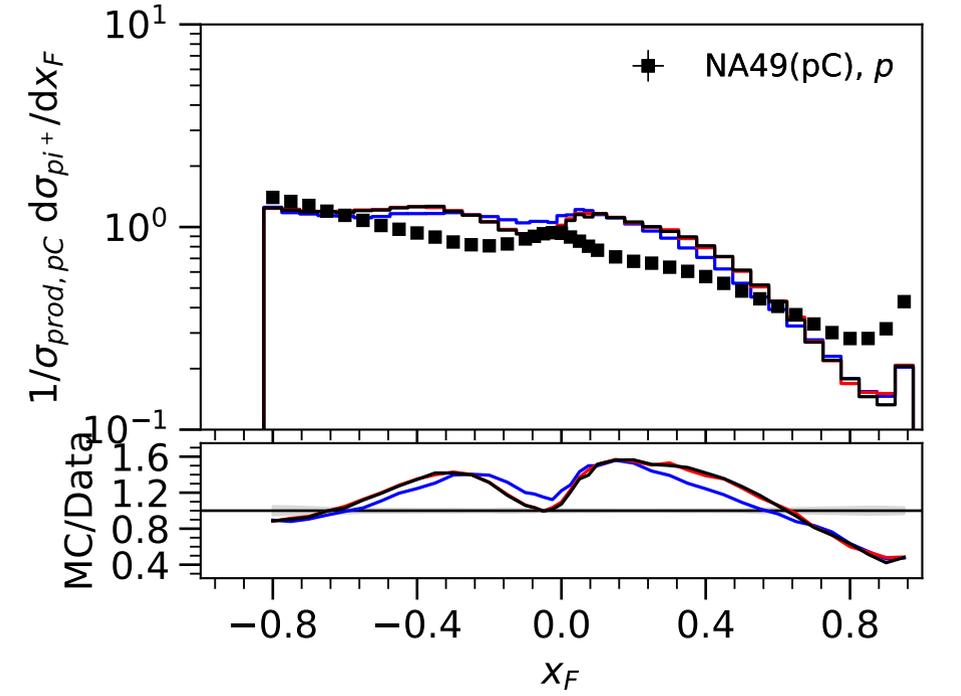
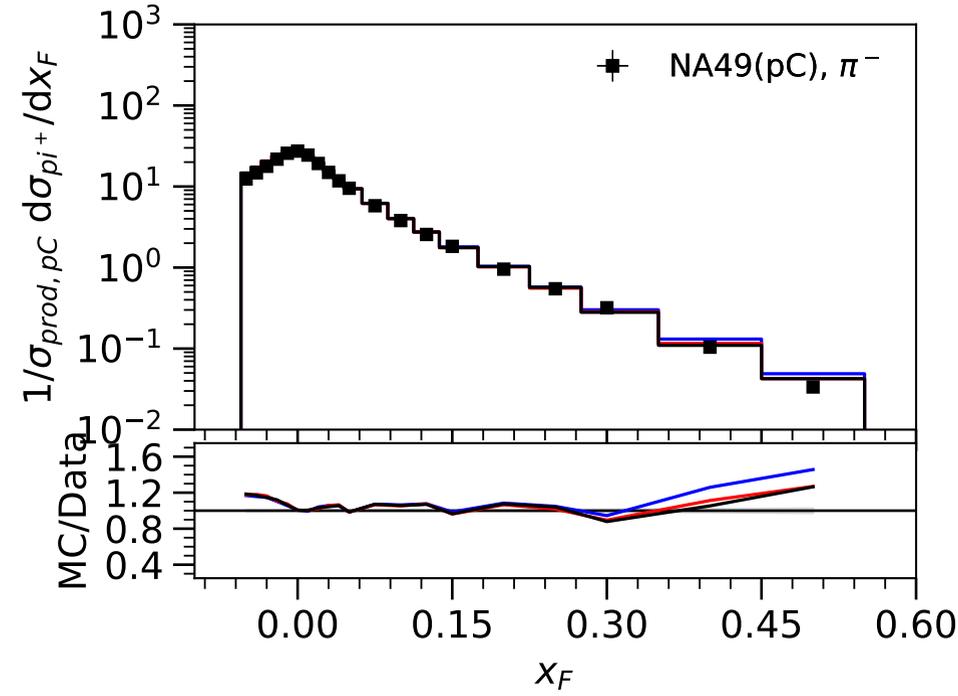
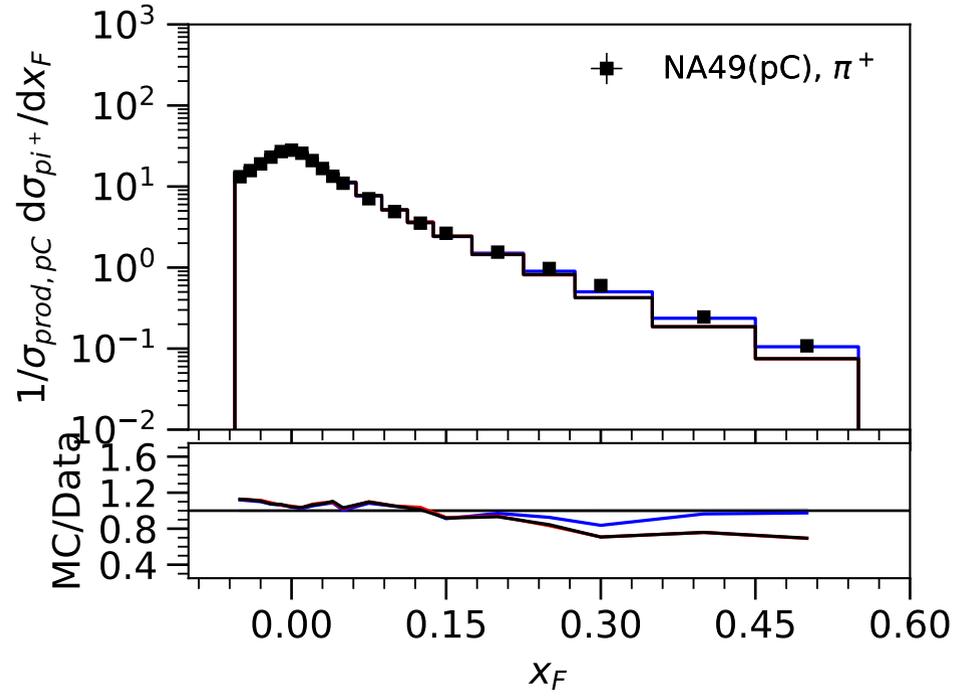


y - NA49 pp collisions at 158 GeV

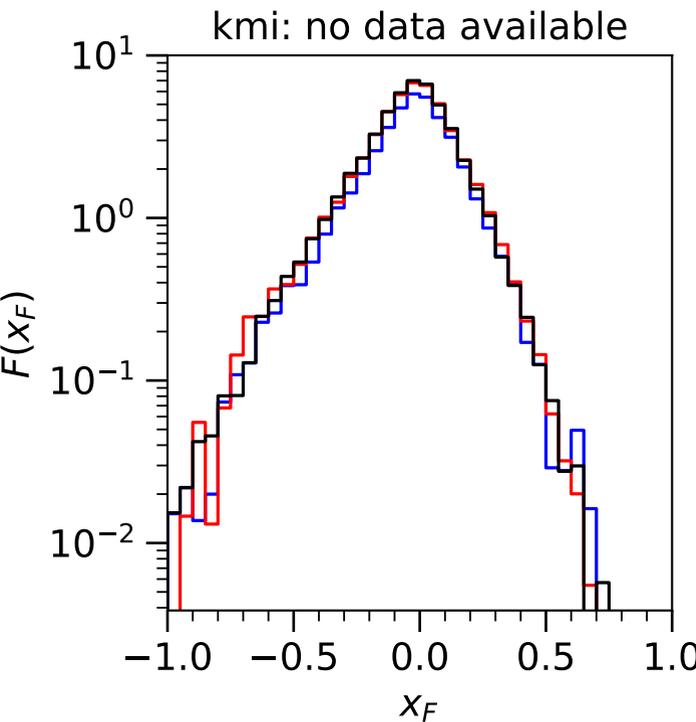
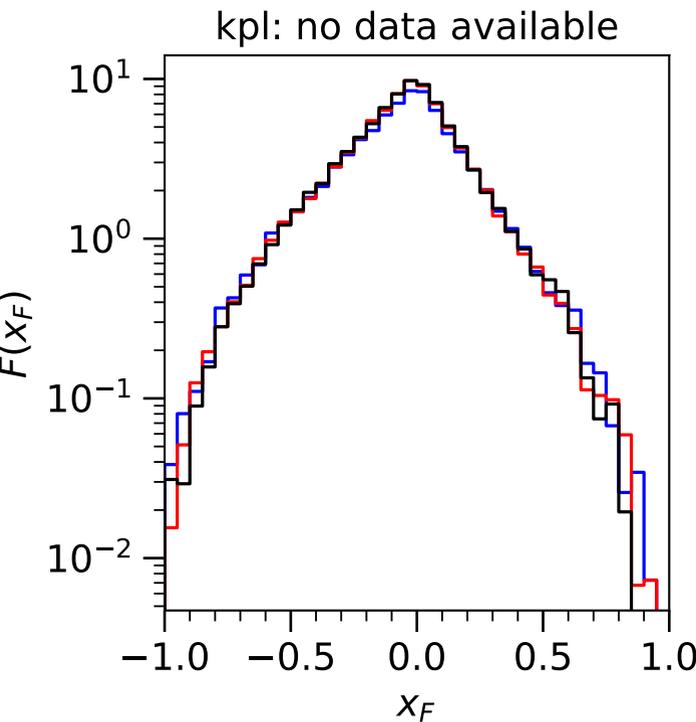
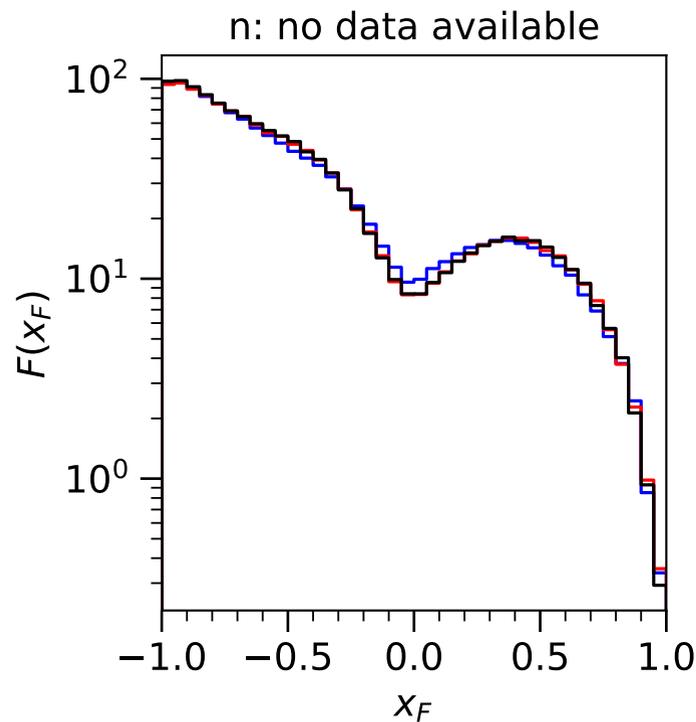
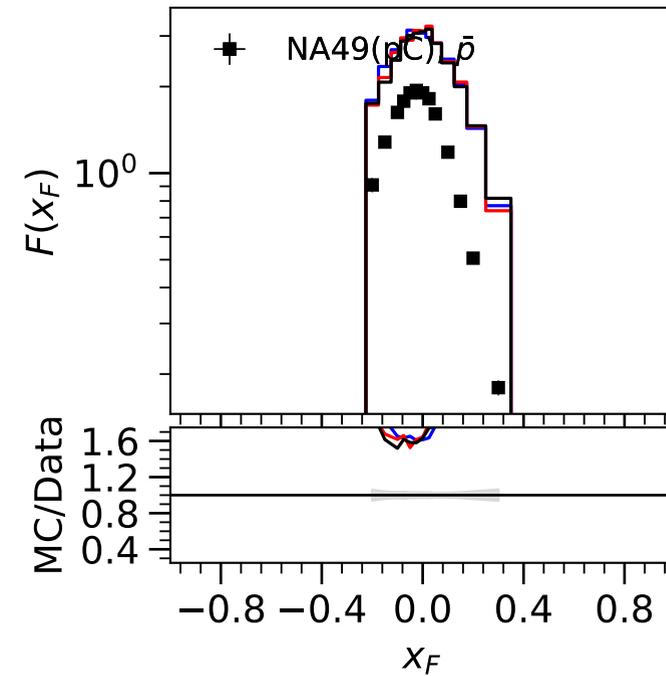
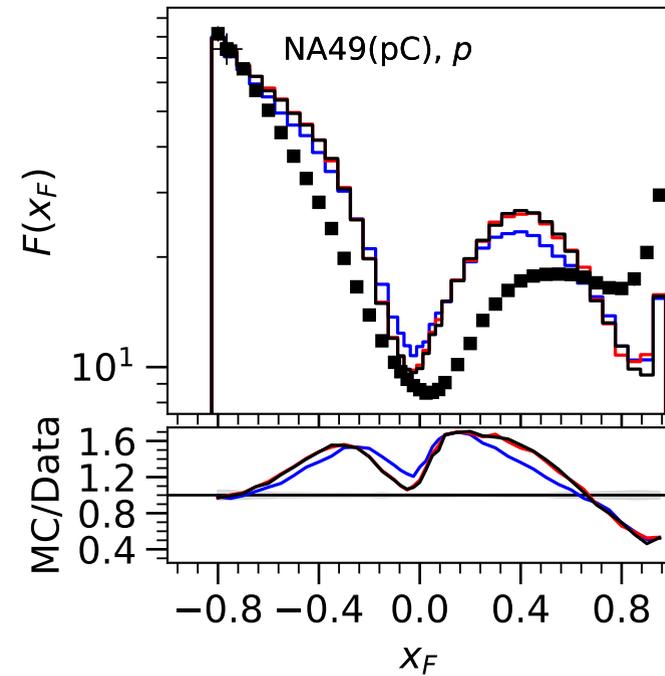
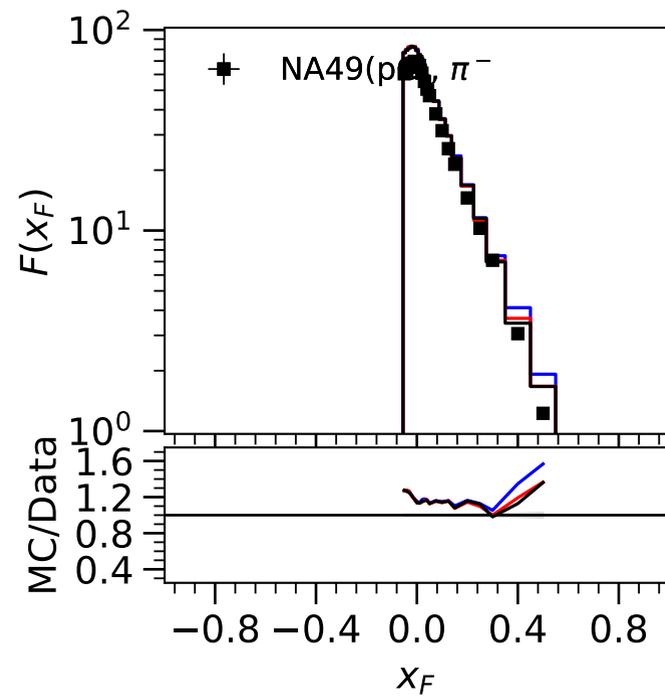
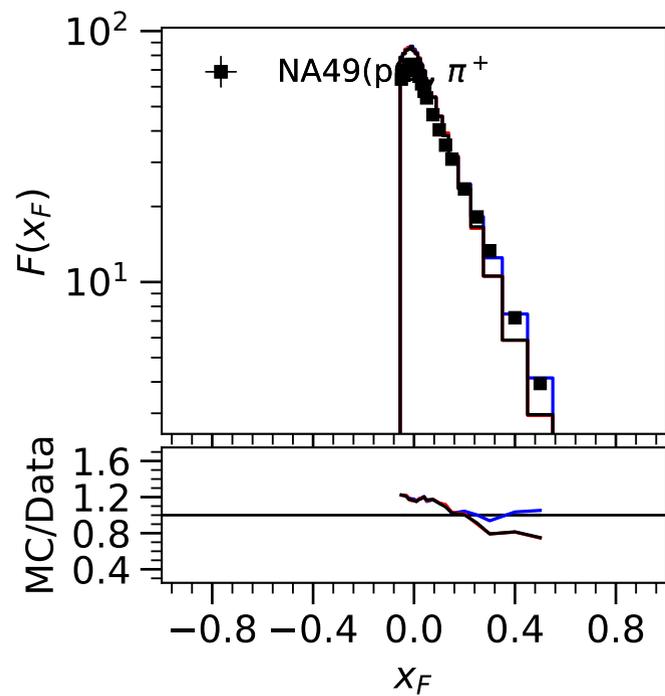


NA49: proton-carbon

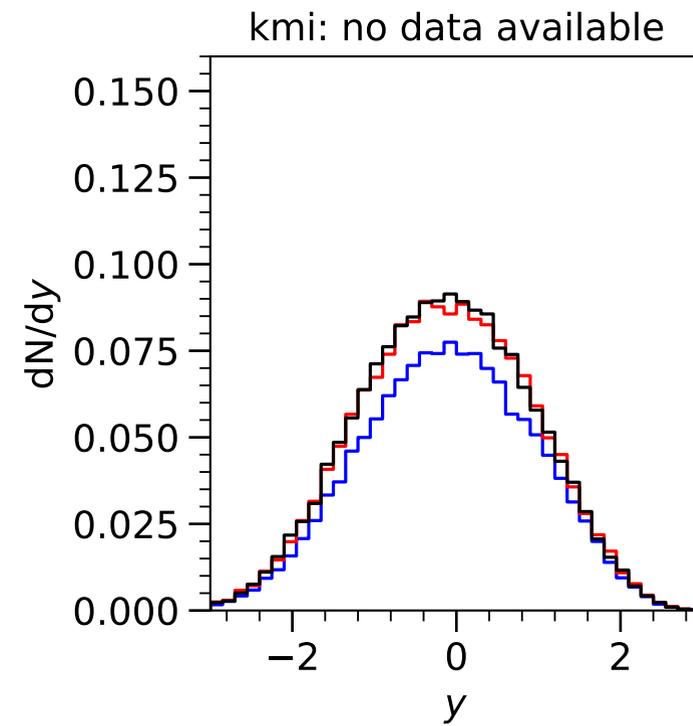
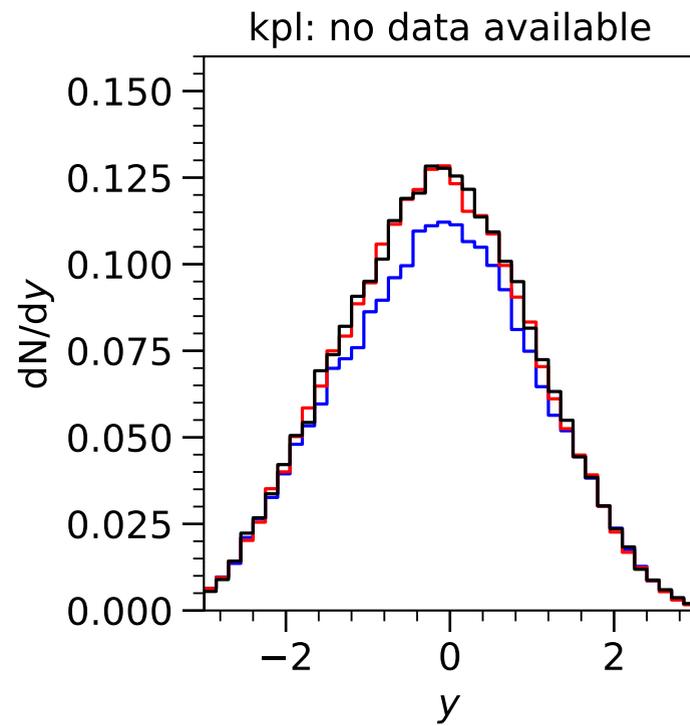
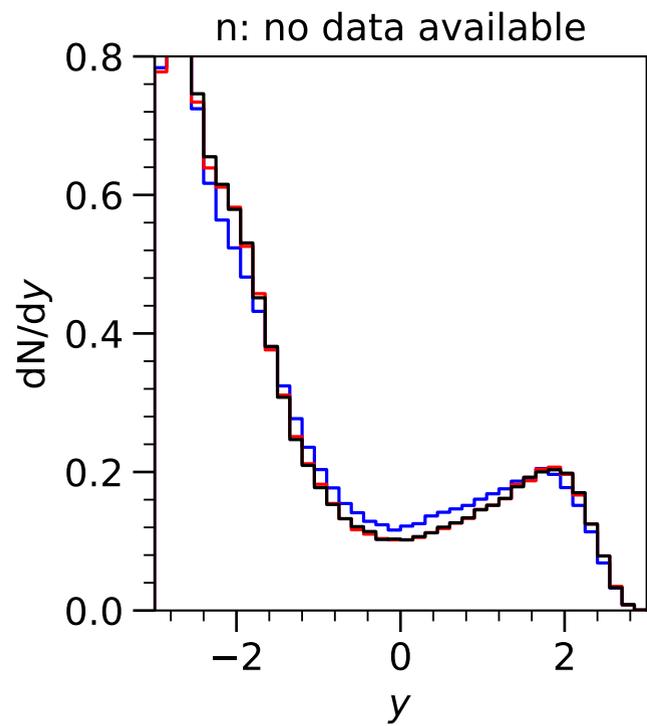
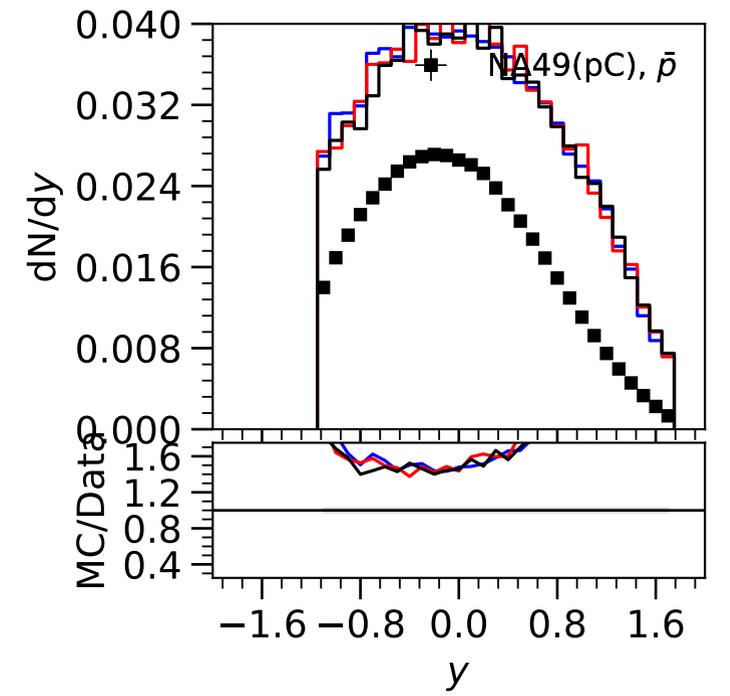
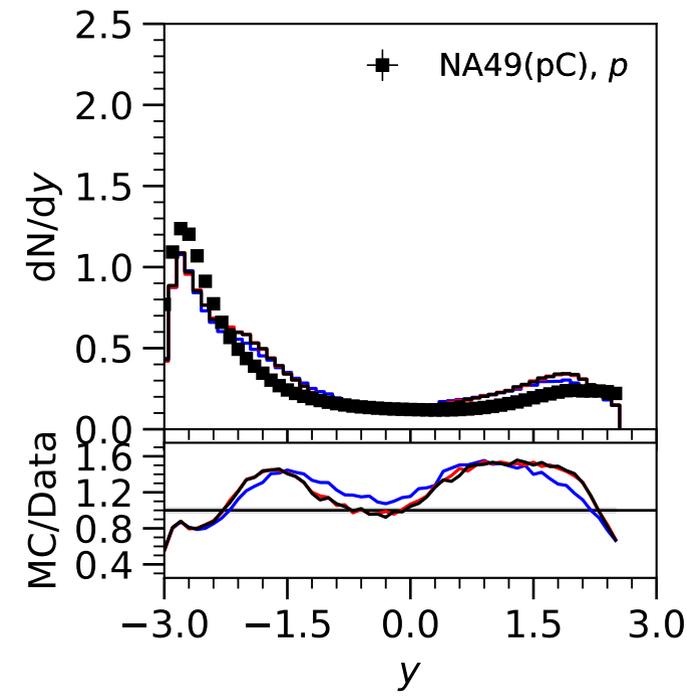
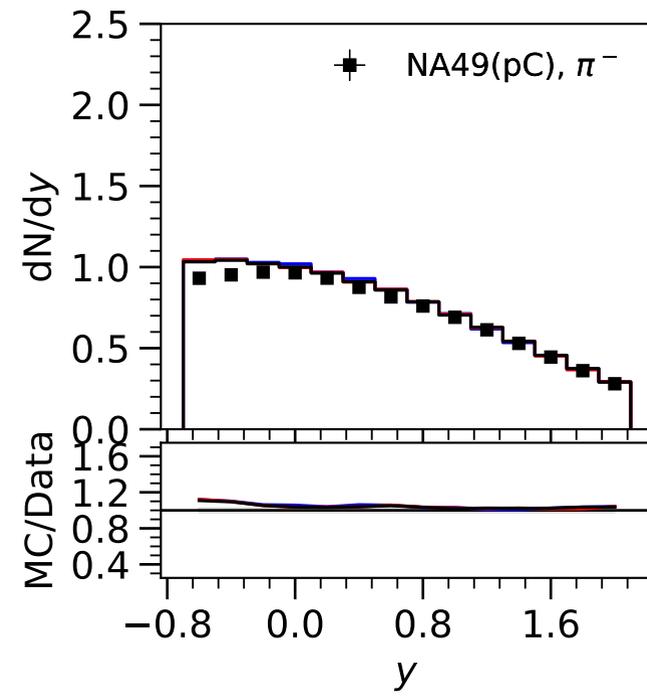
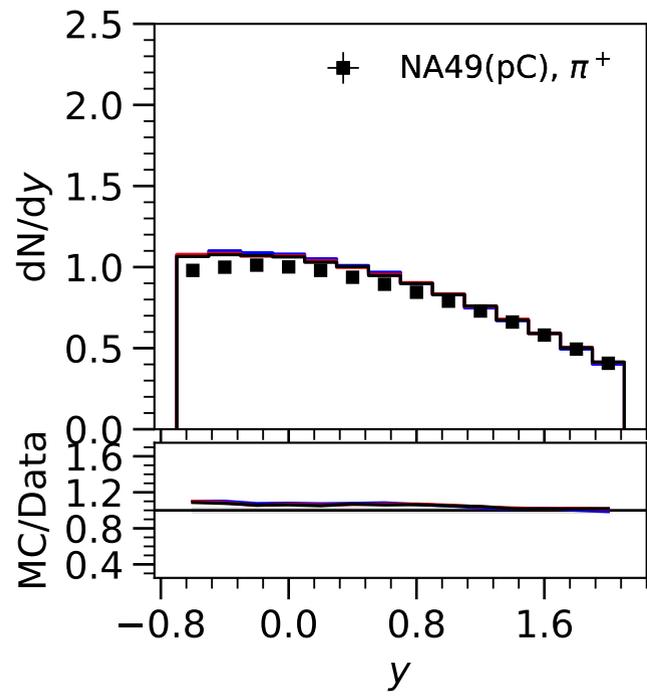
x_F - NA49 pC collisions at 158 GeV



$F(x_F)$ - NA49 pC collisions at 158 GeV

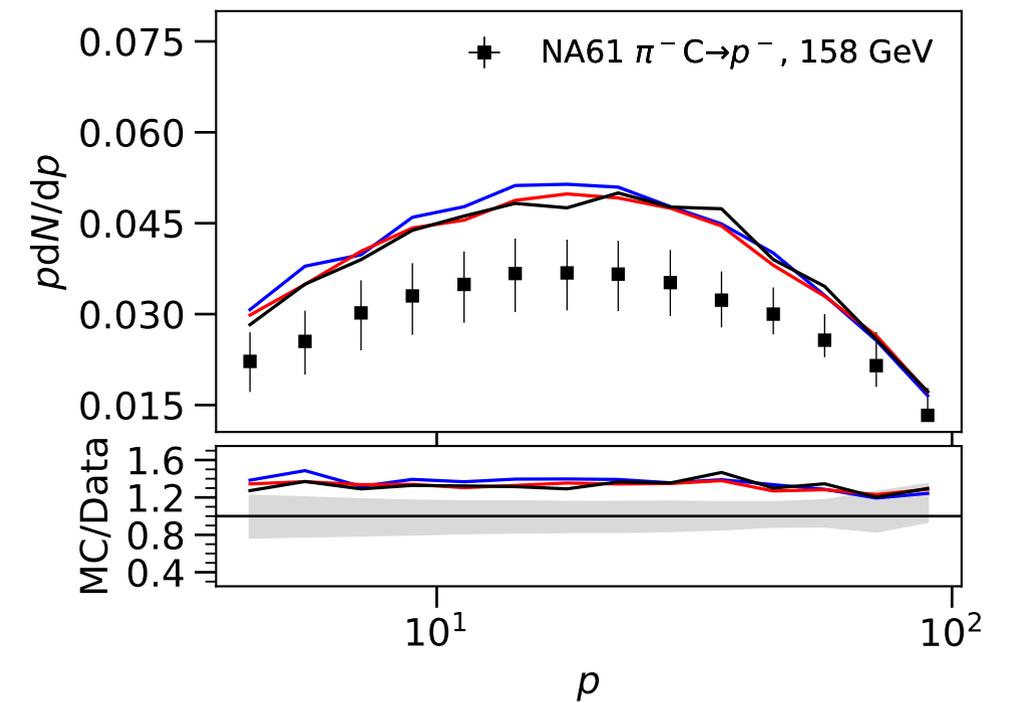
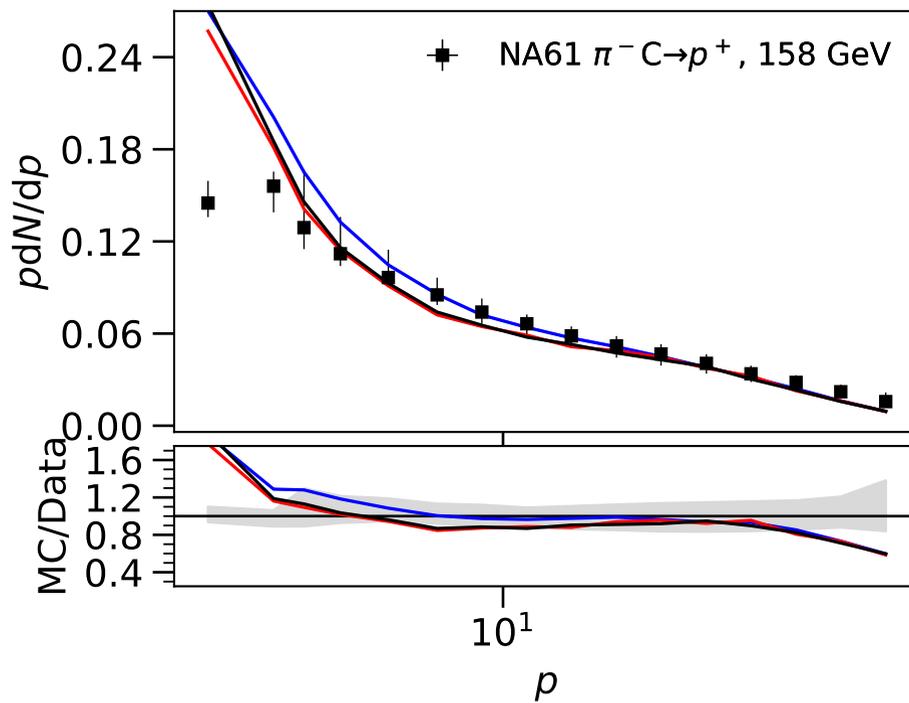
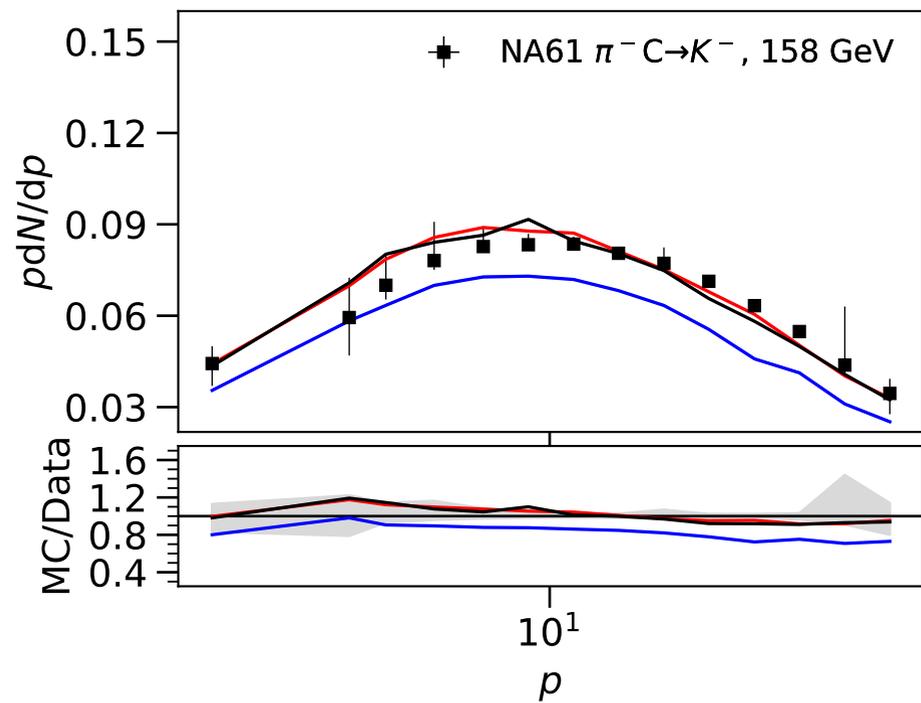
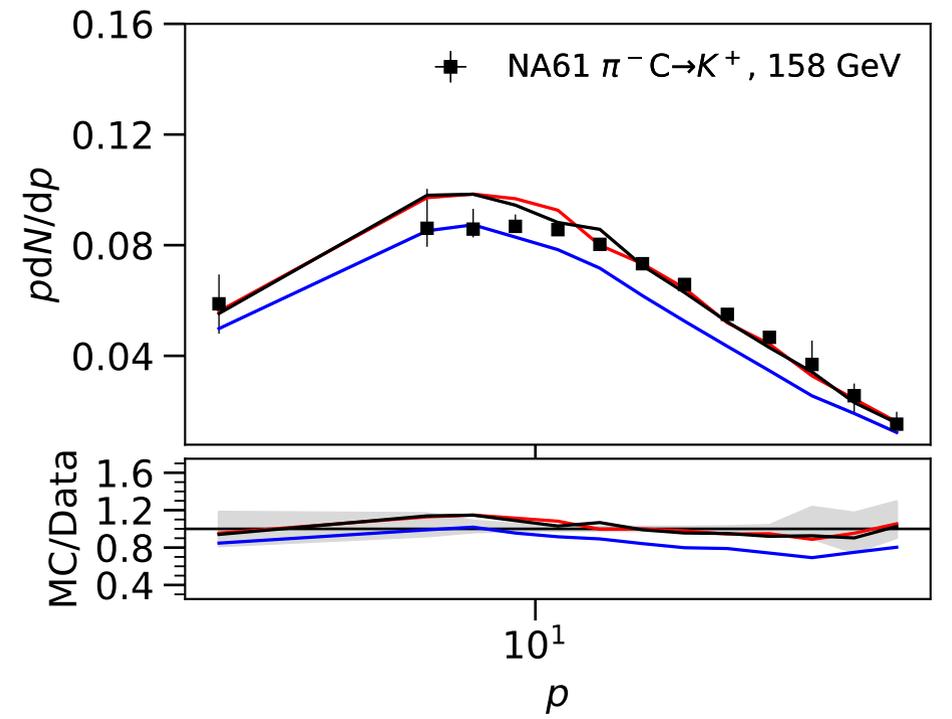
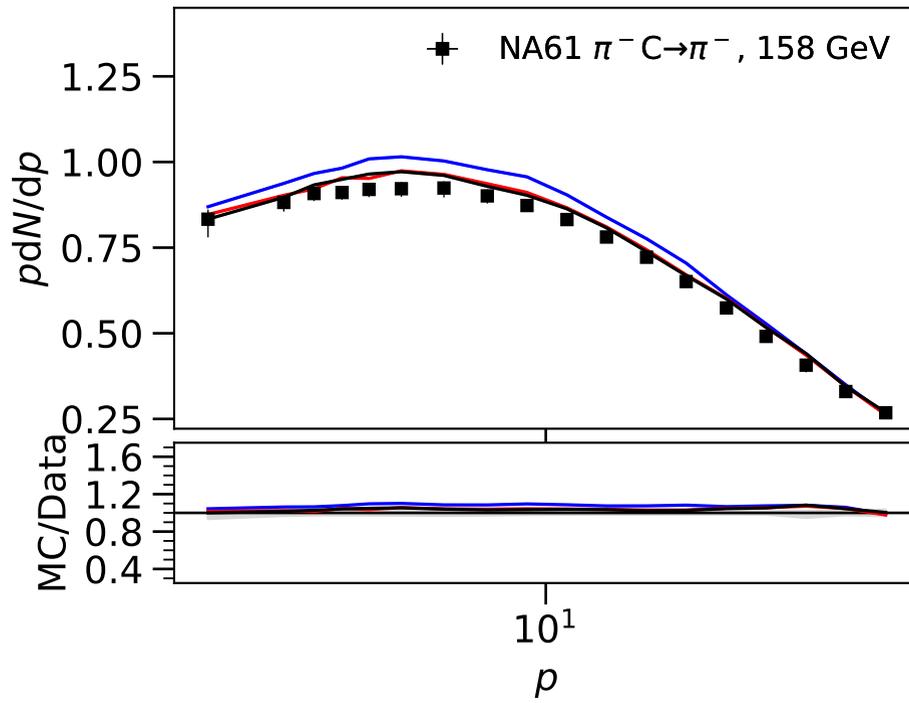
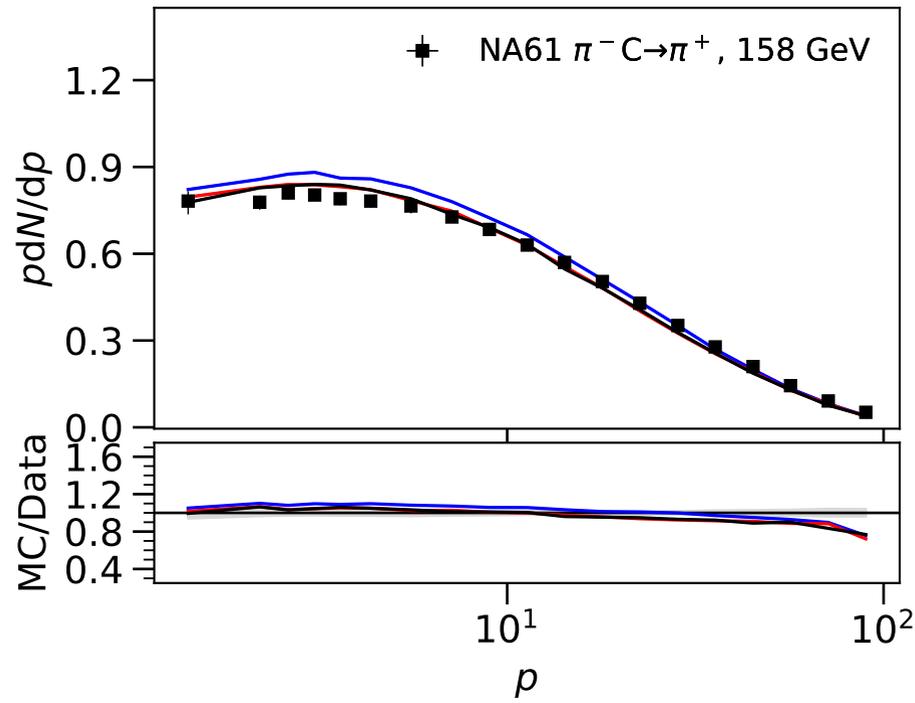


y - NA49 pC collisions at 158 GeV

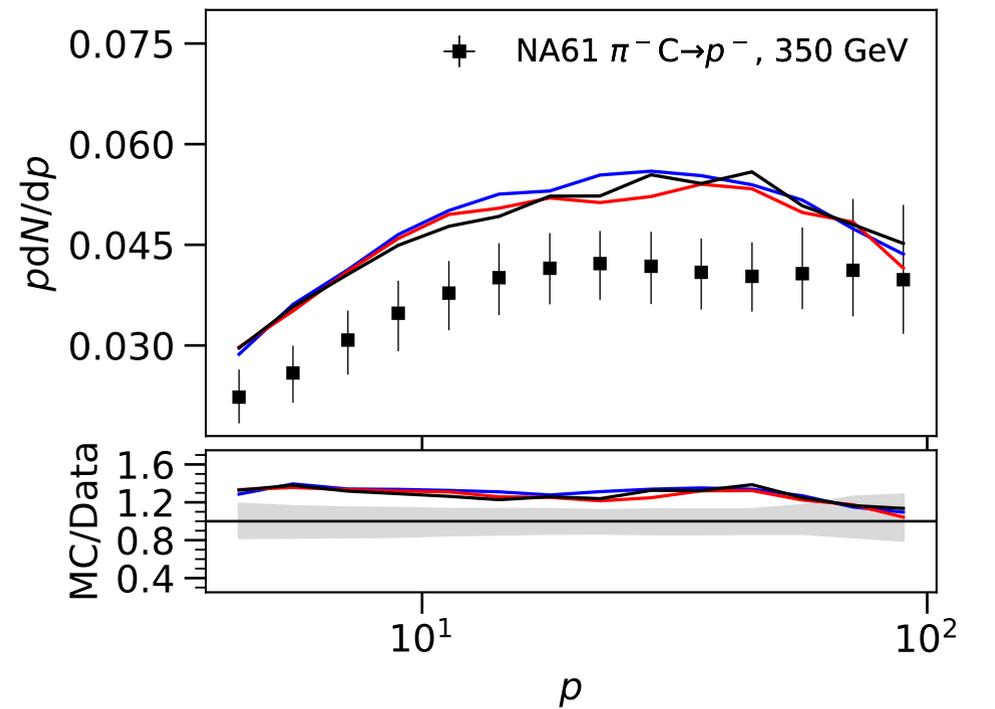
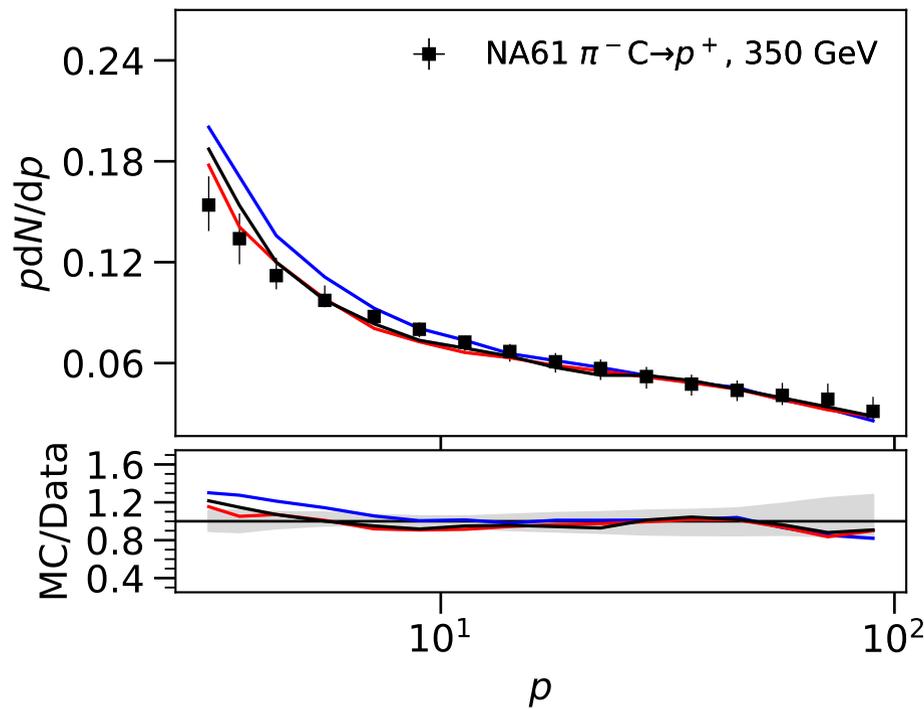
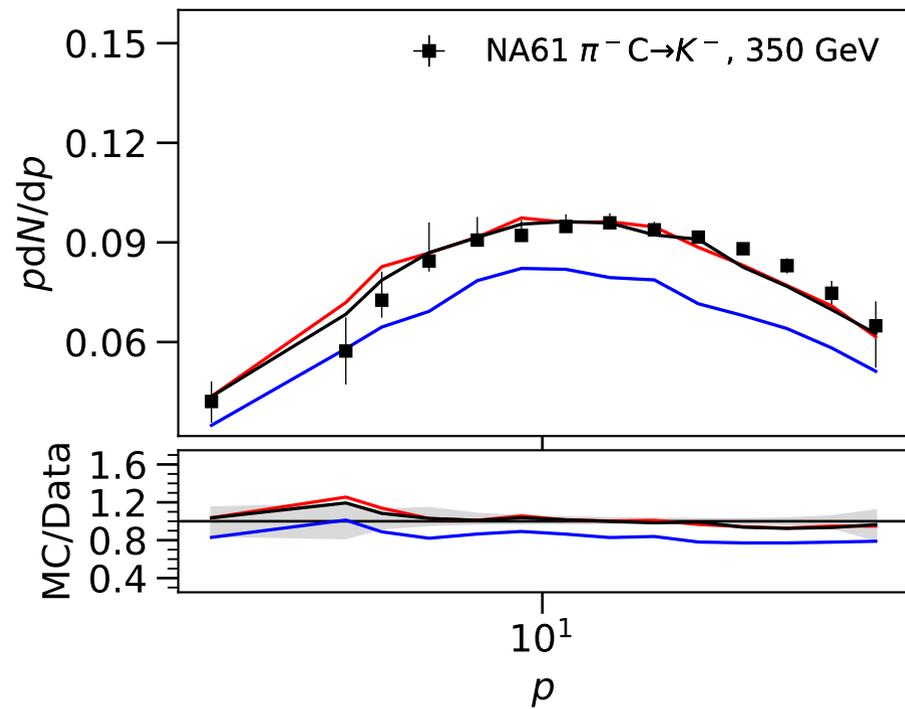
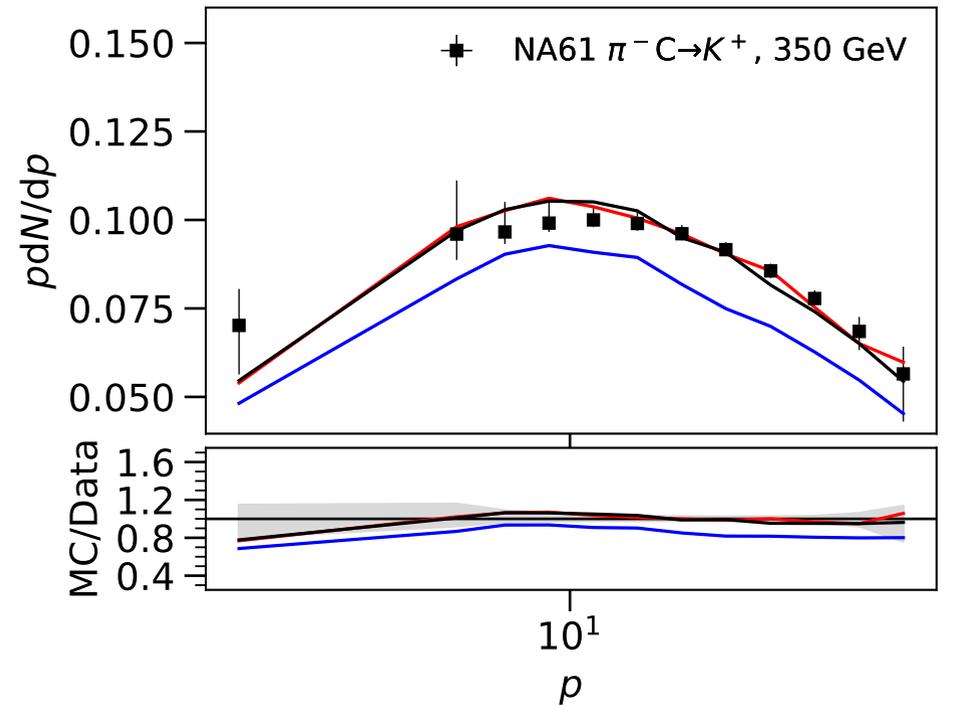
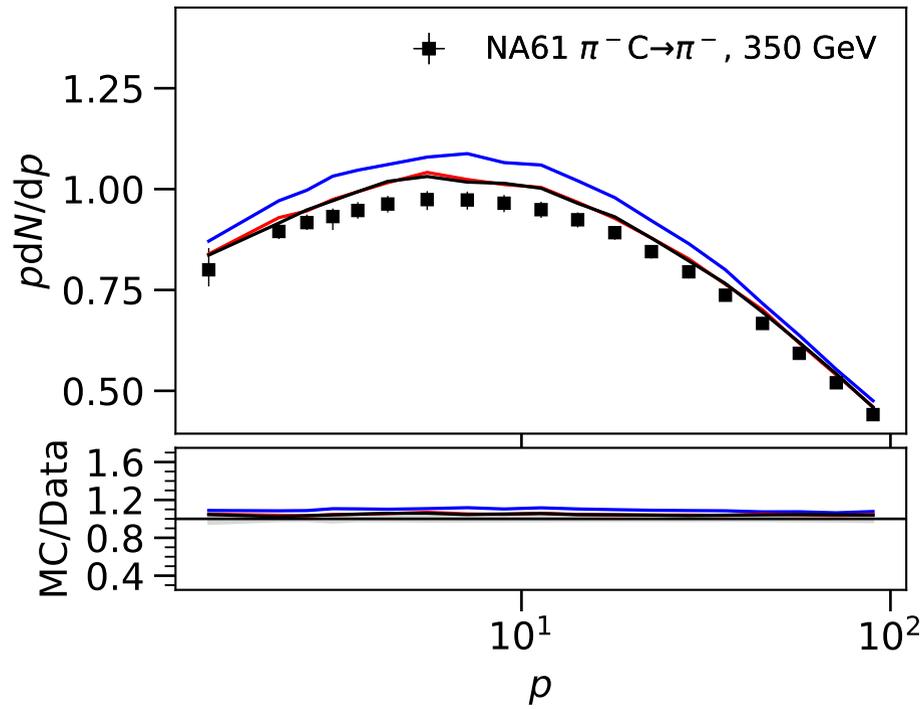
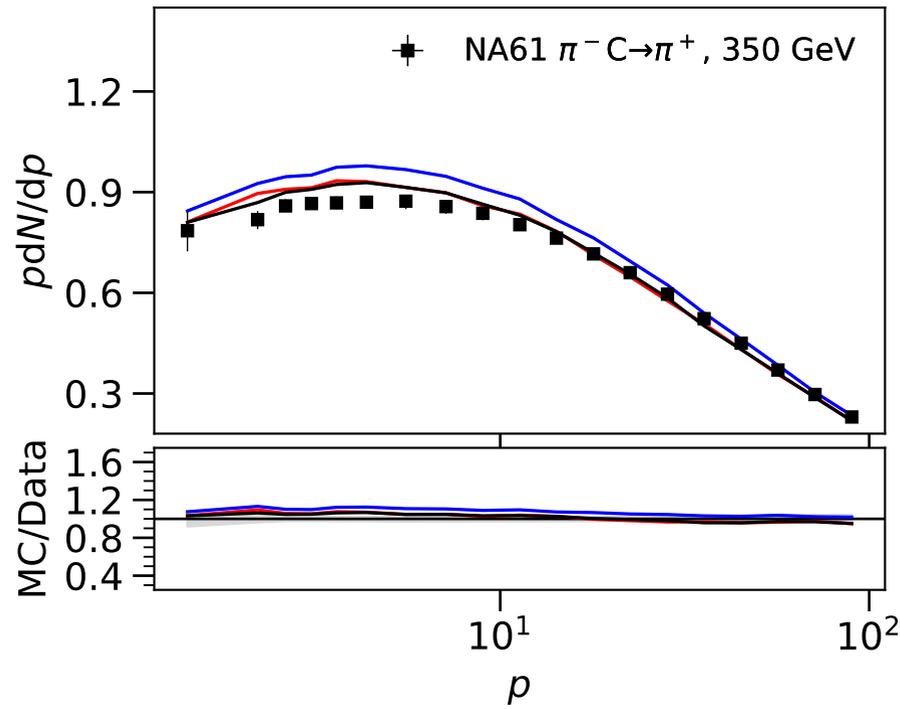


NA61: pion-Carbon

NA61 - momentum spectrum in $\pi^- + C$ at 158 GeV

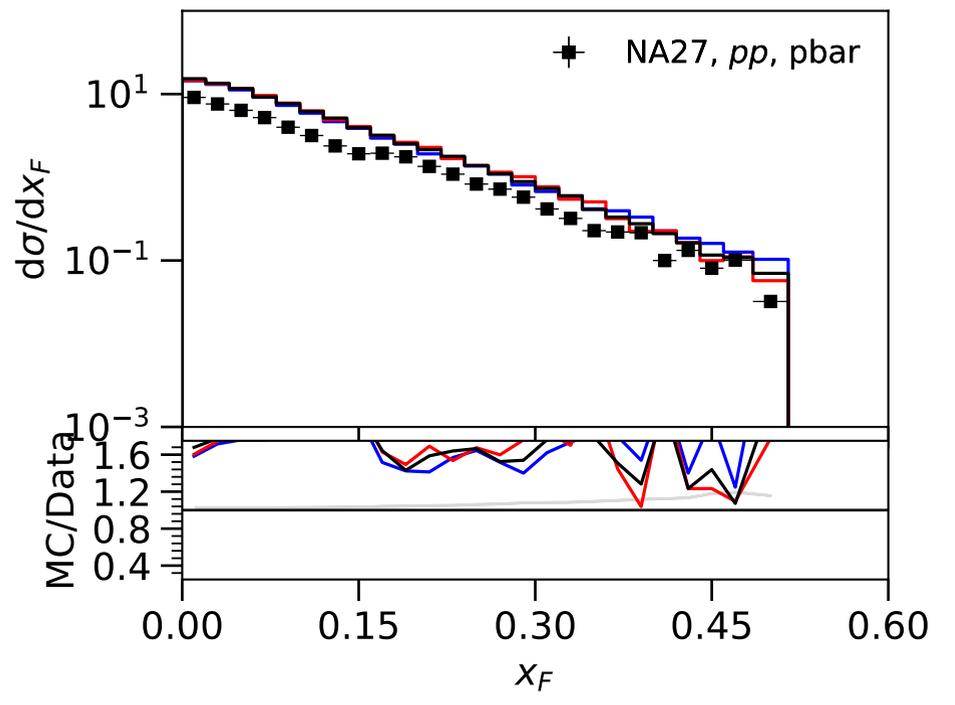
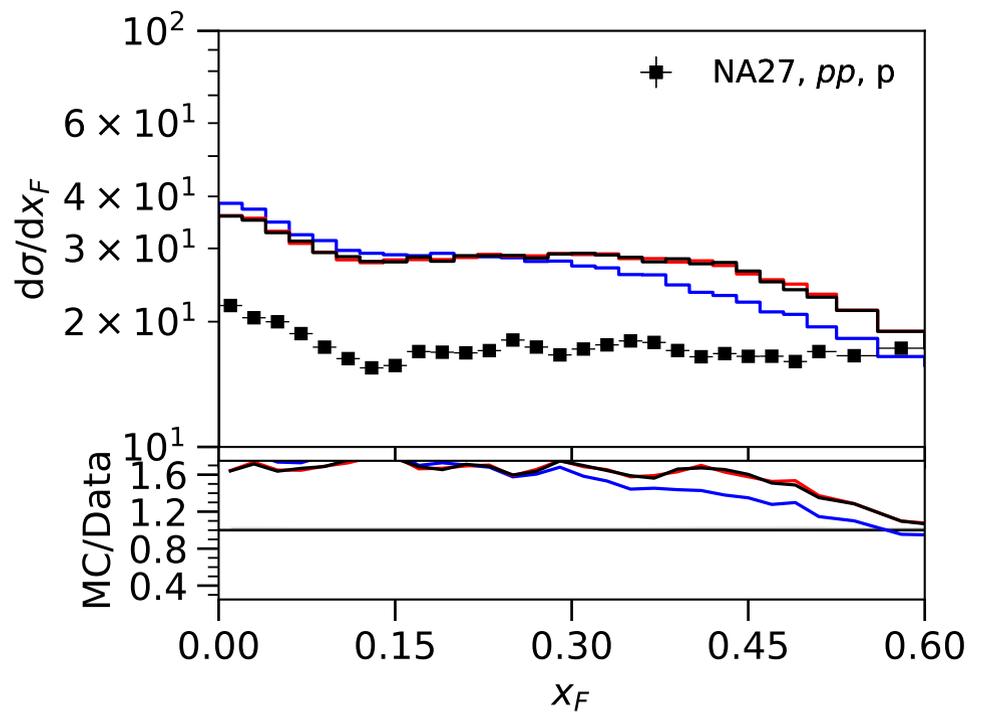
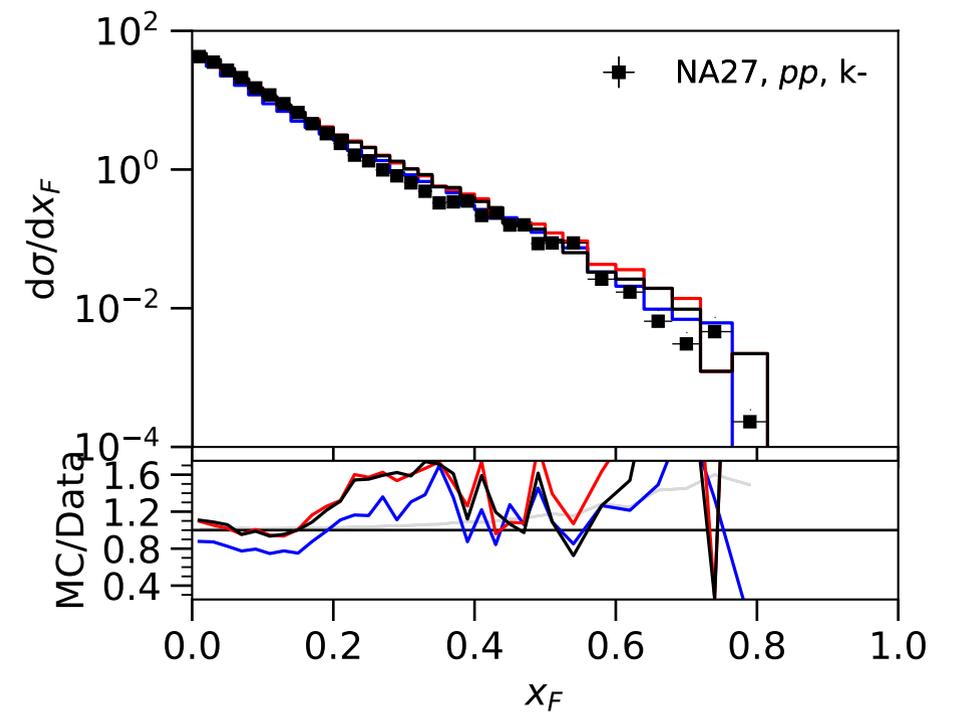
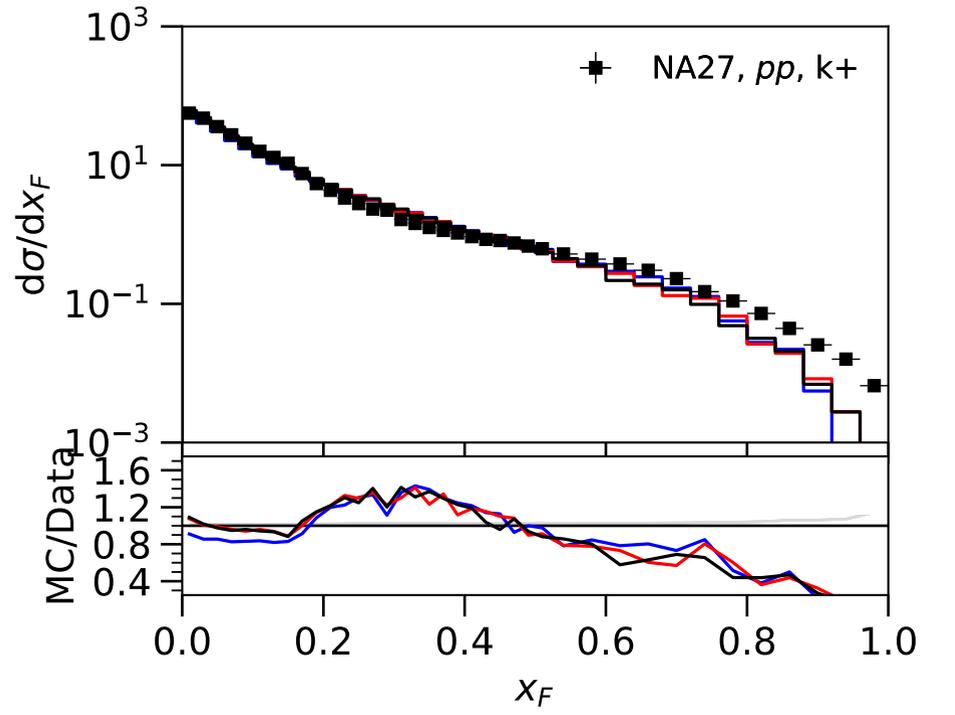
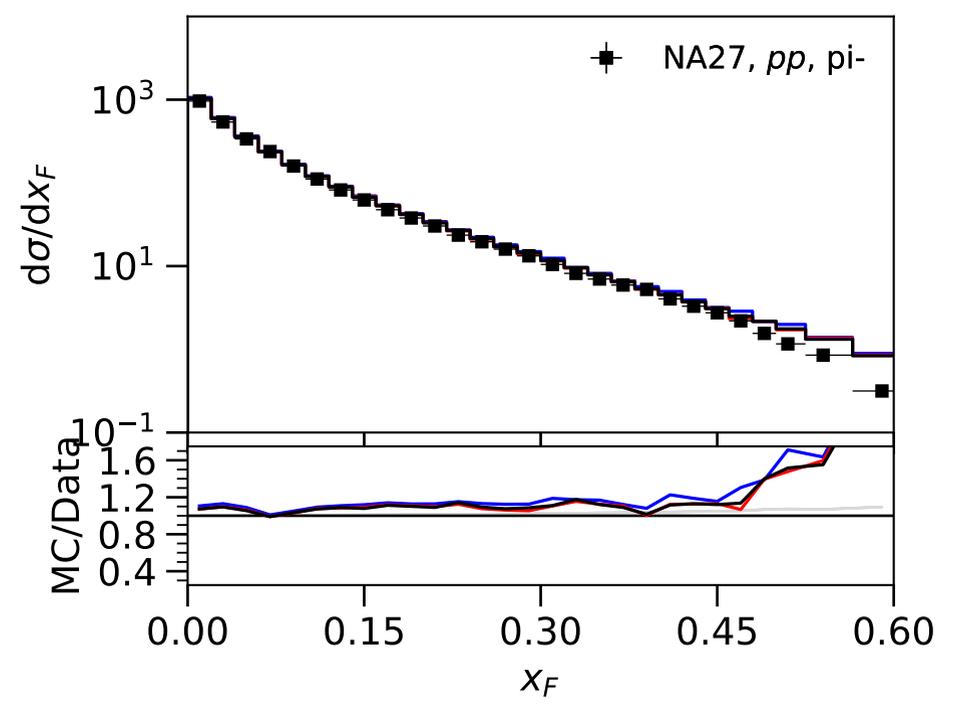
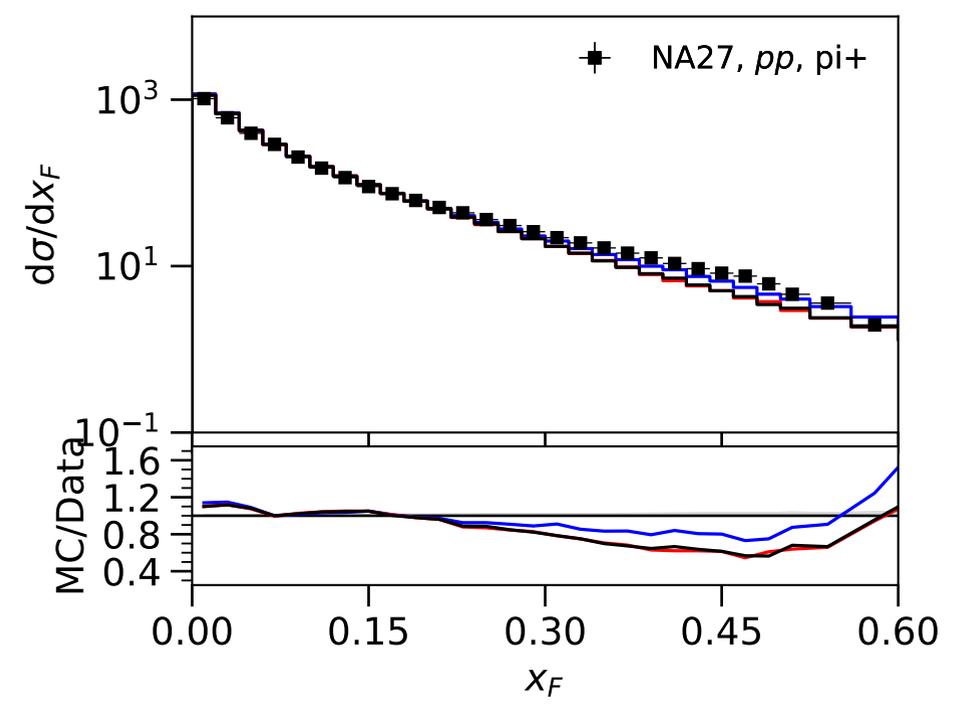


NA61 - momentum spectrum in $\pi^- + C$ at 350 GeV

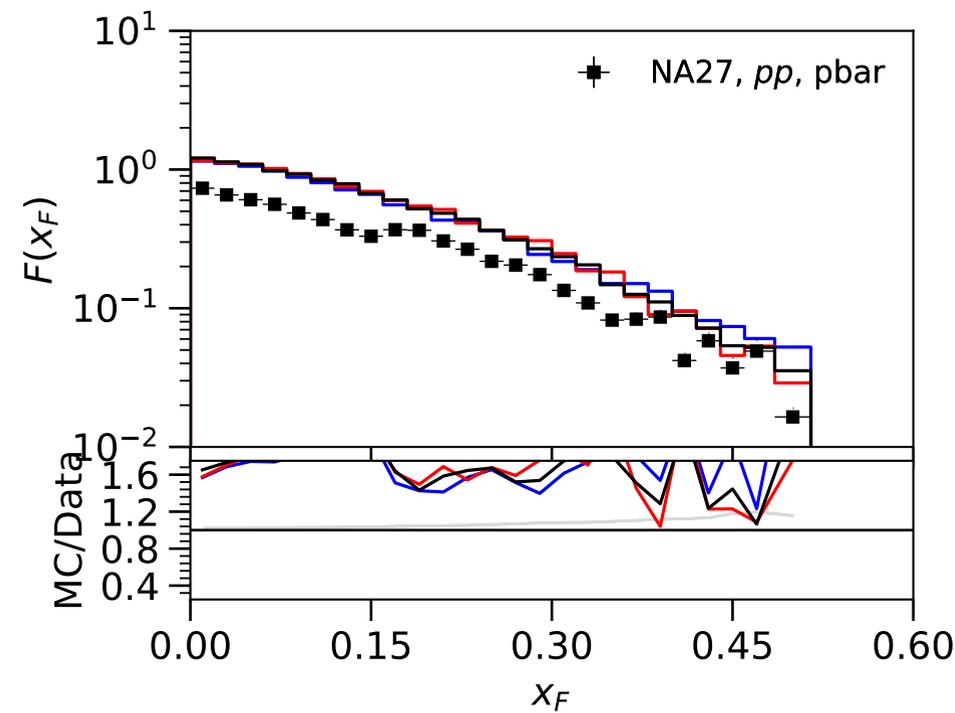
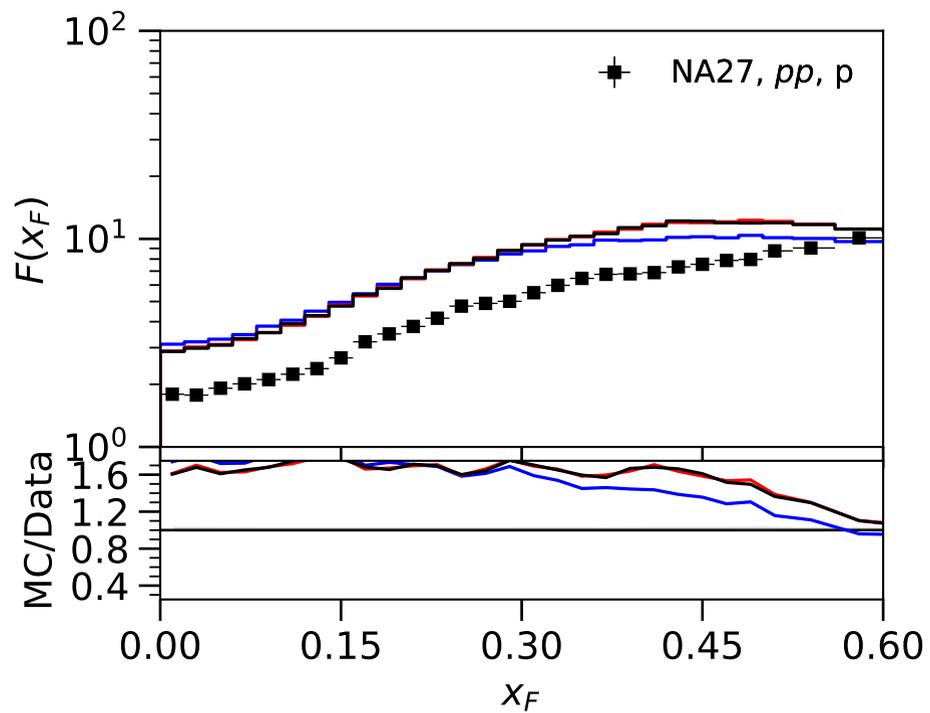
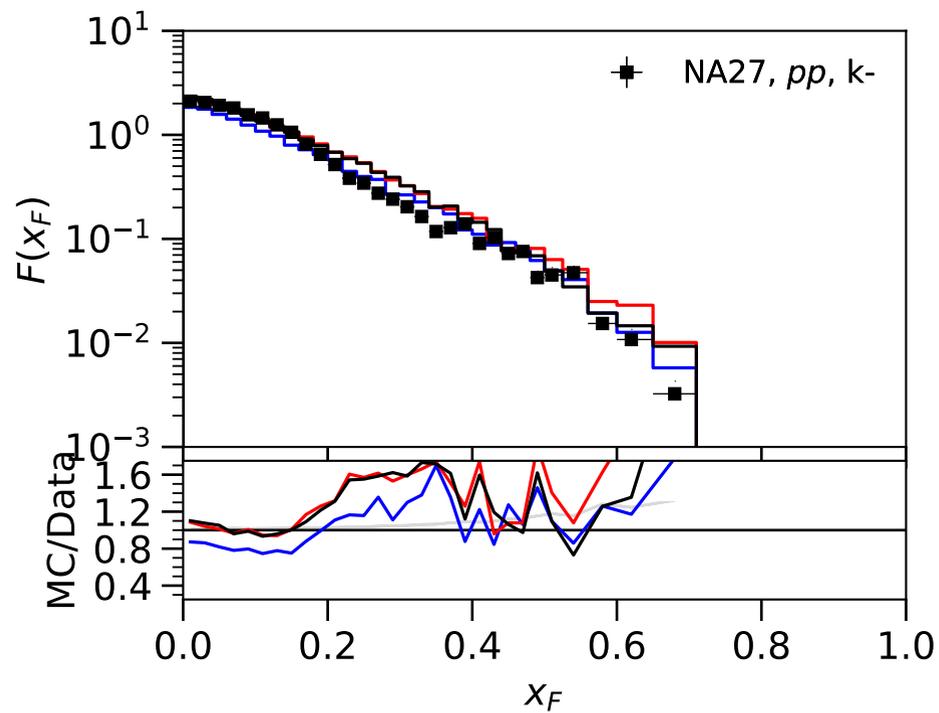
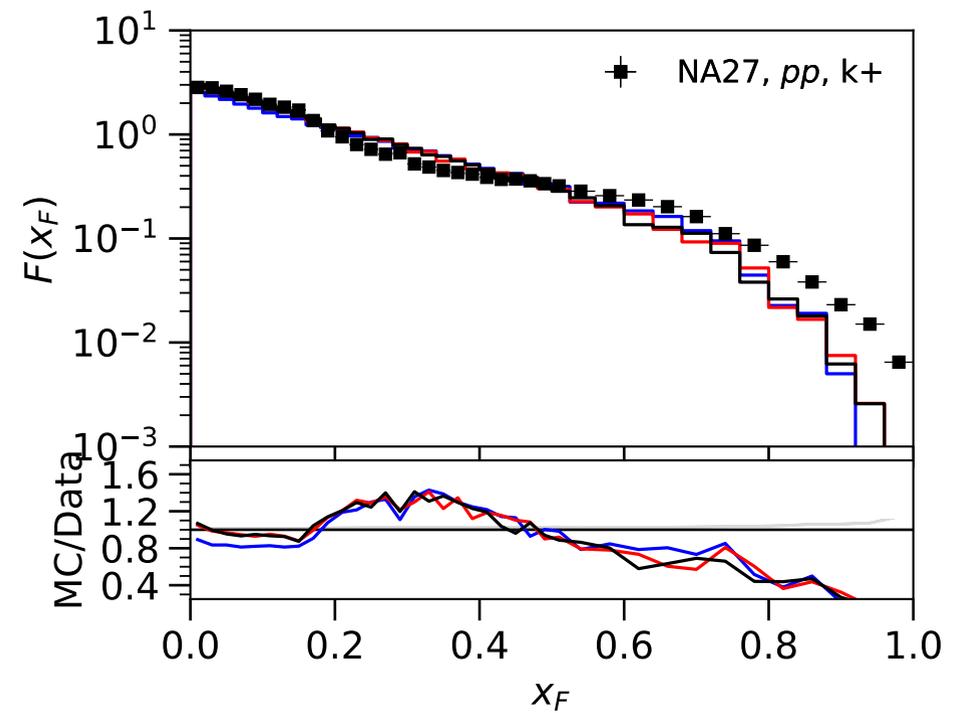
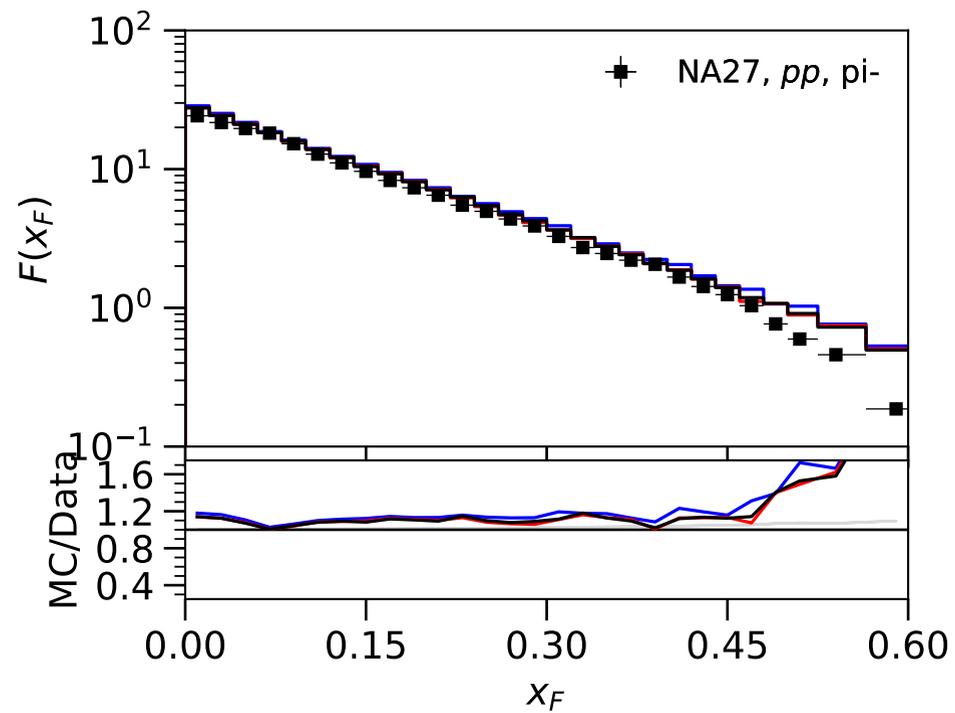
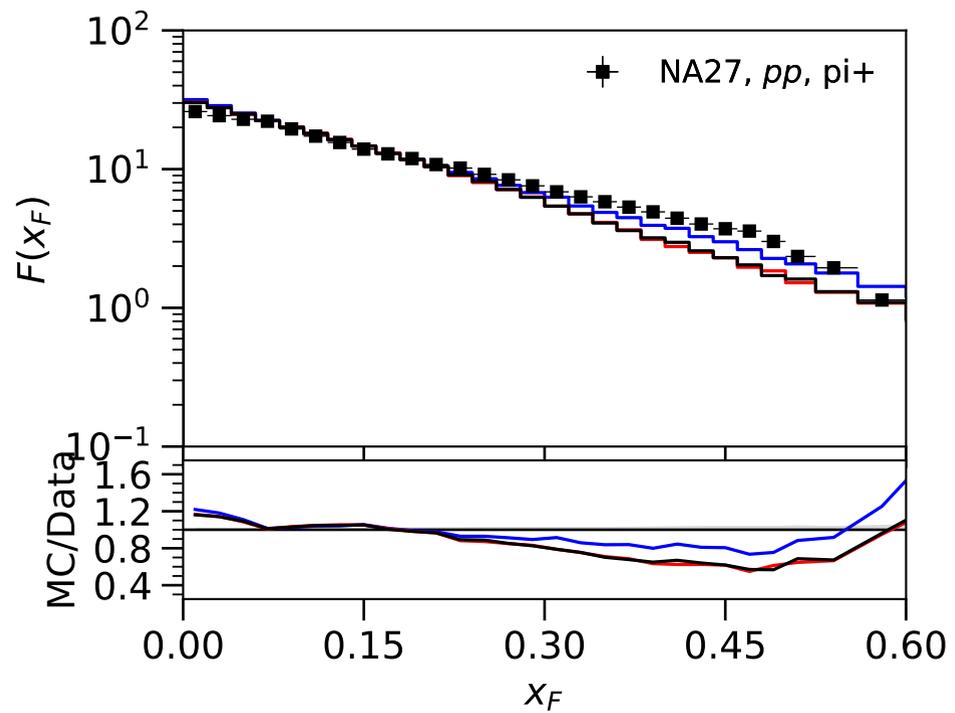


NA27: proton-proton

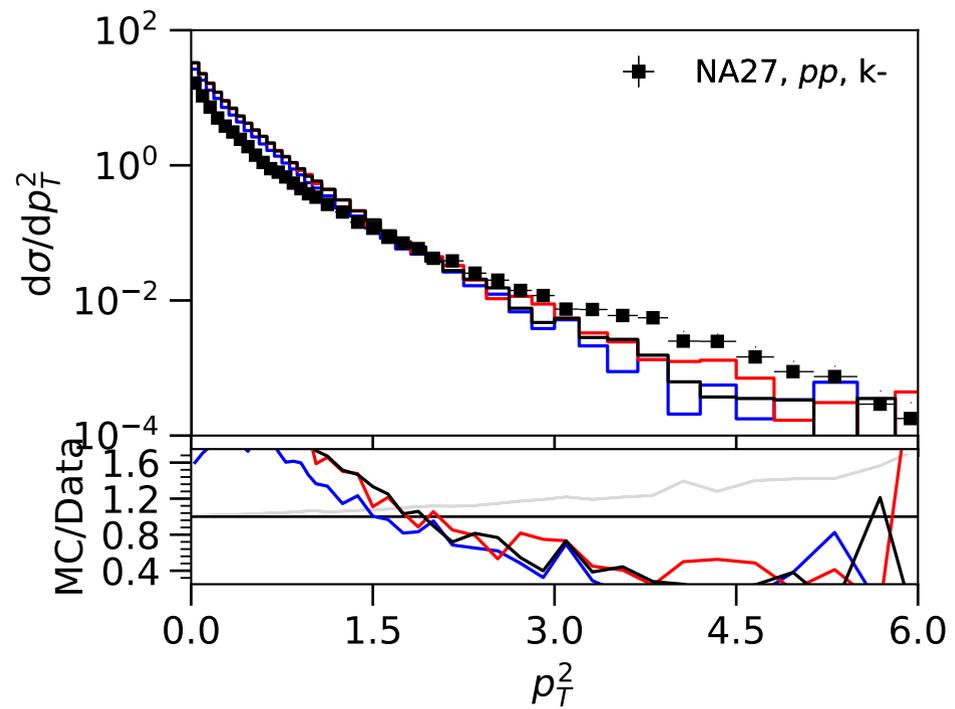
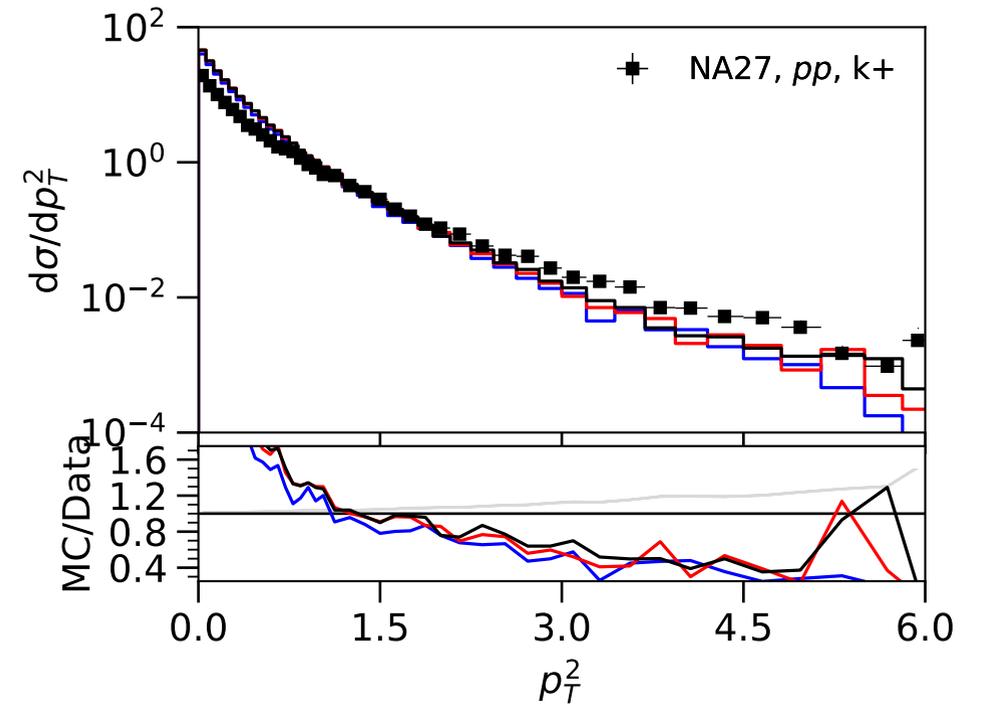
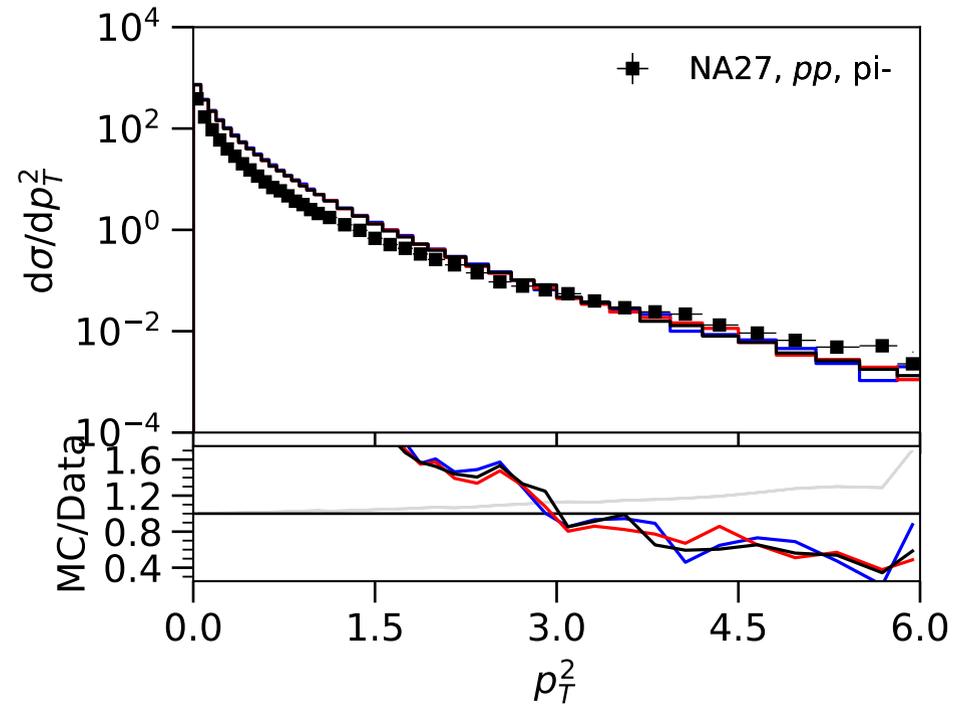
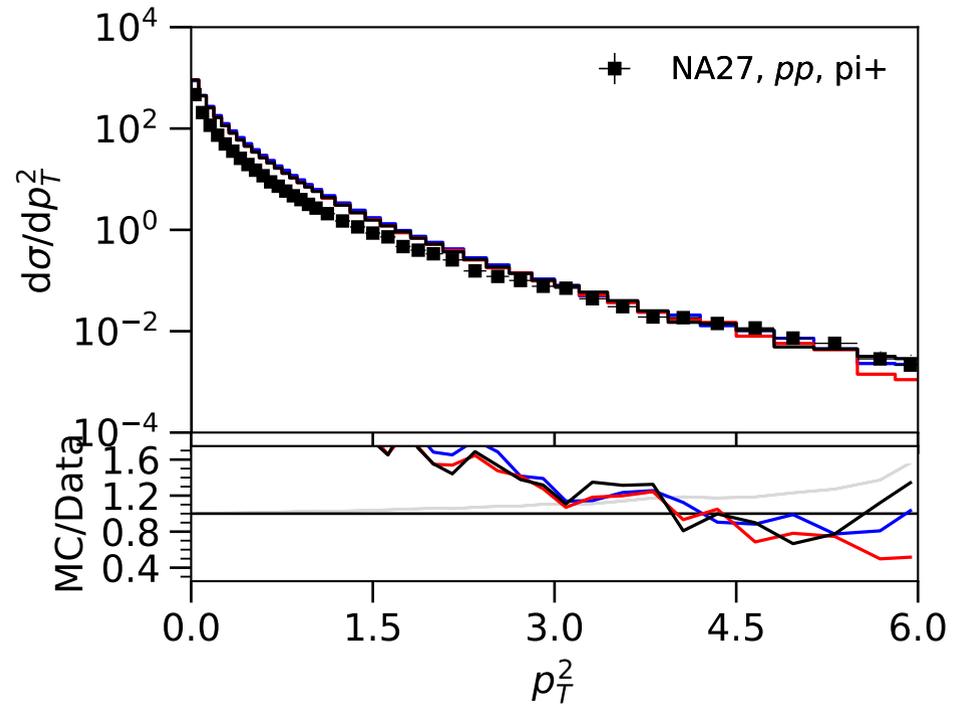
x_F - NA27 pp collisions at 400 GeV



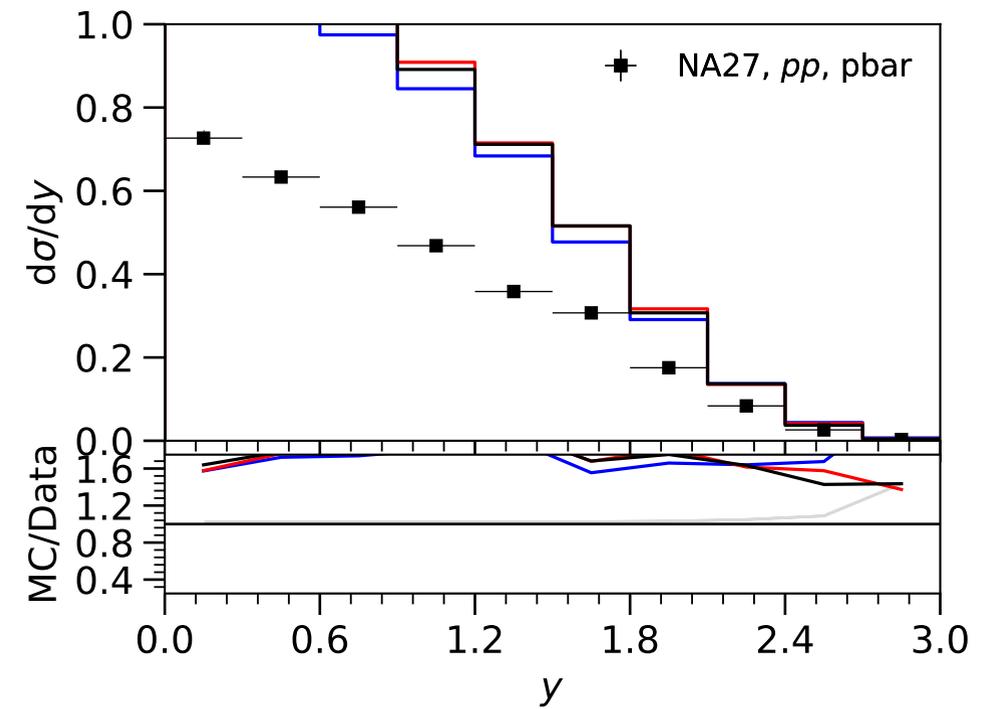
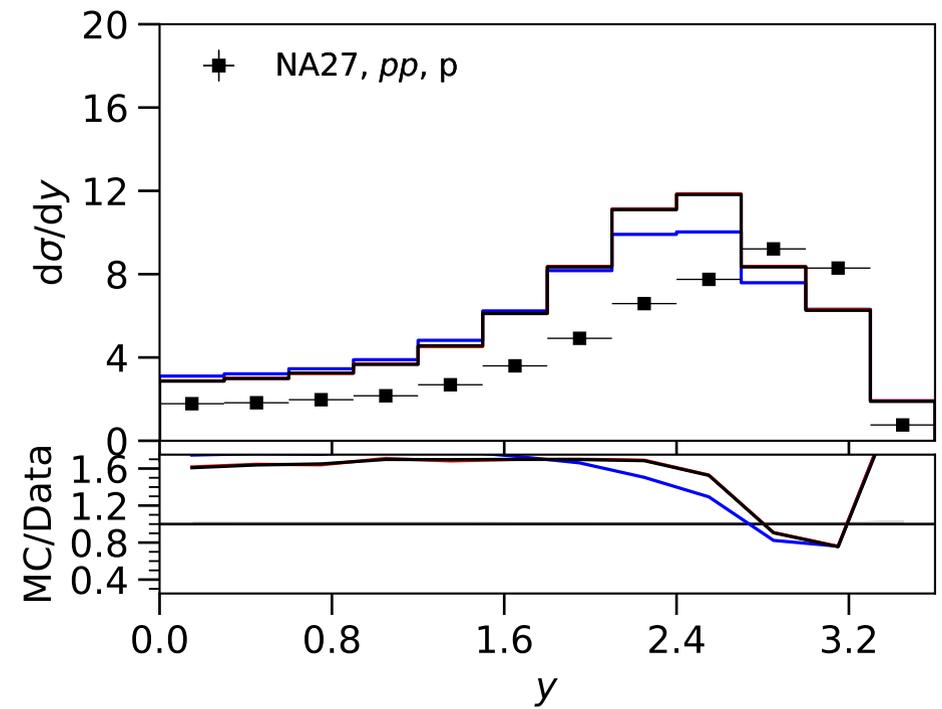
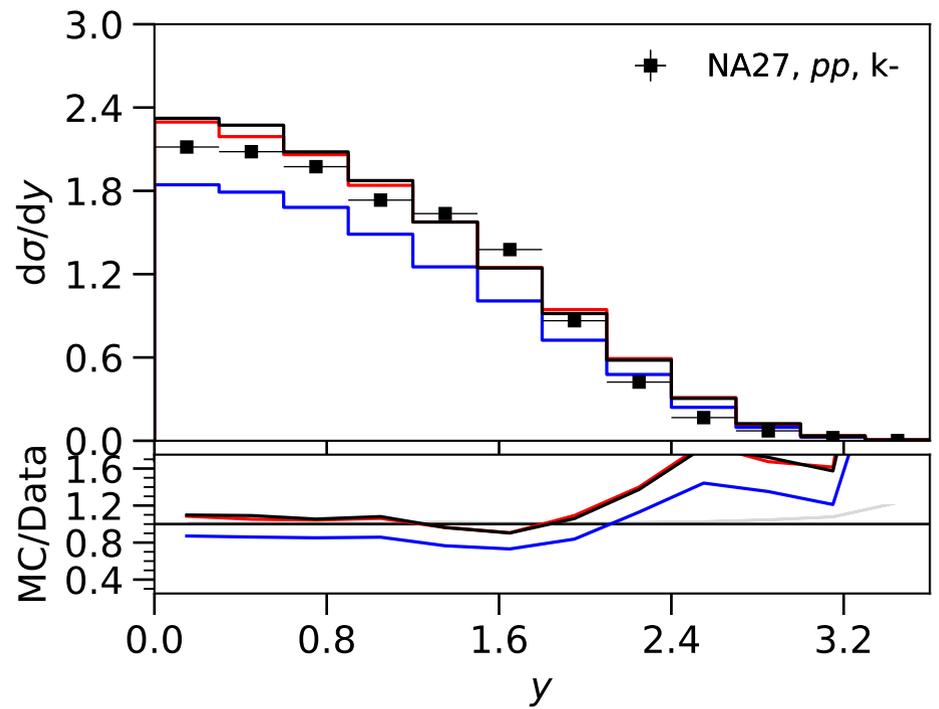
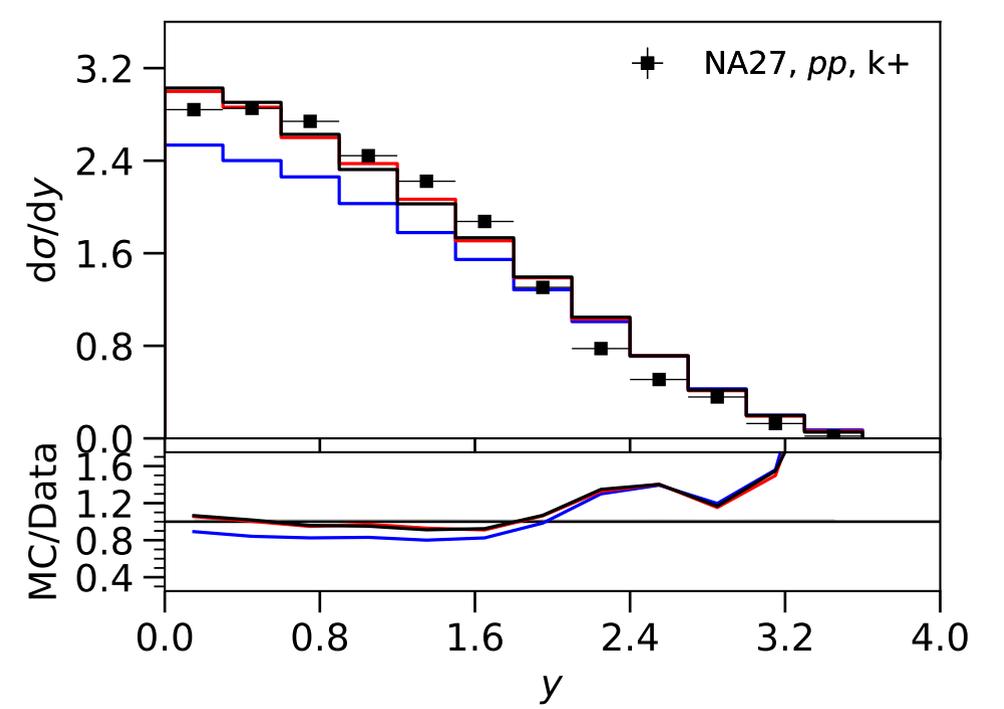
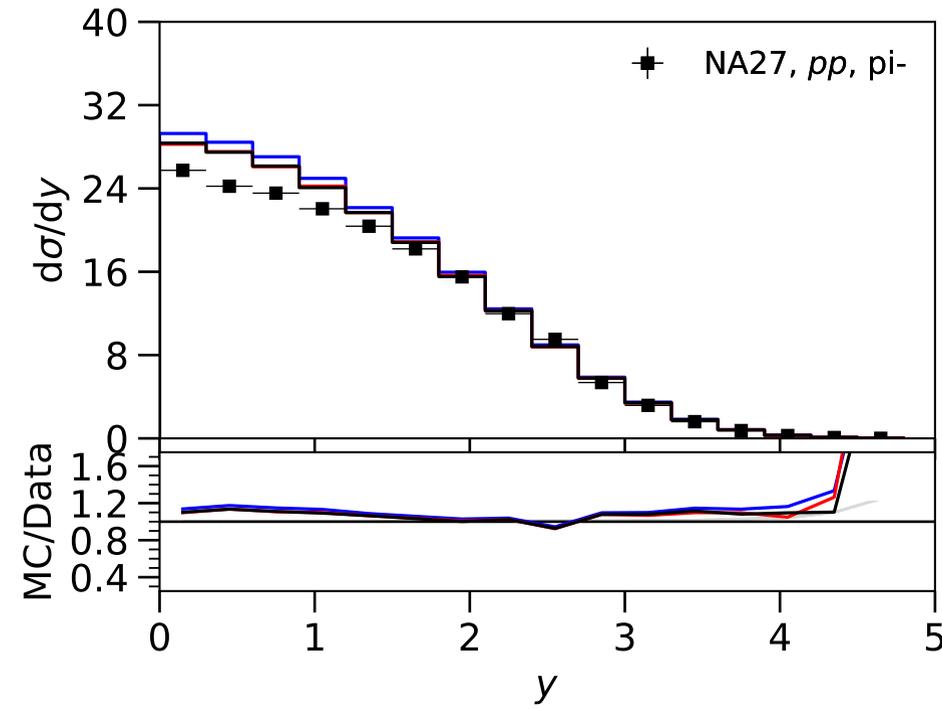
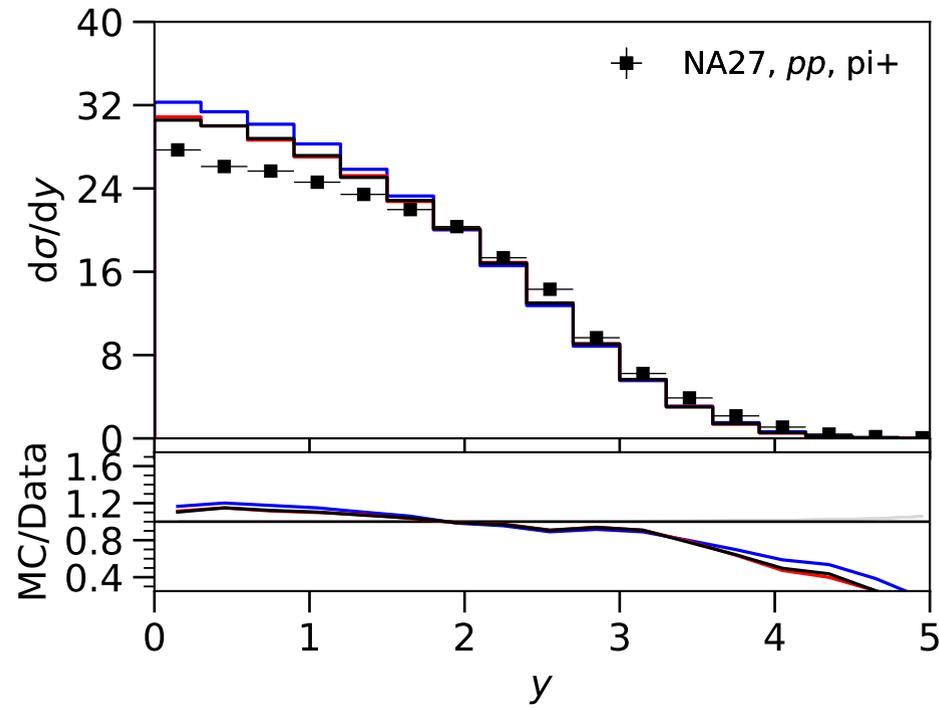
$F(x_F)$ - NA27 pp collisions at 400 GeV



p_T^2 - NA27 pp collisions at 400 GeV

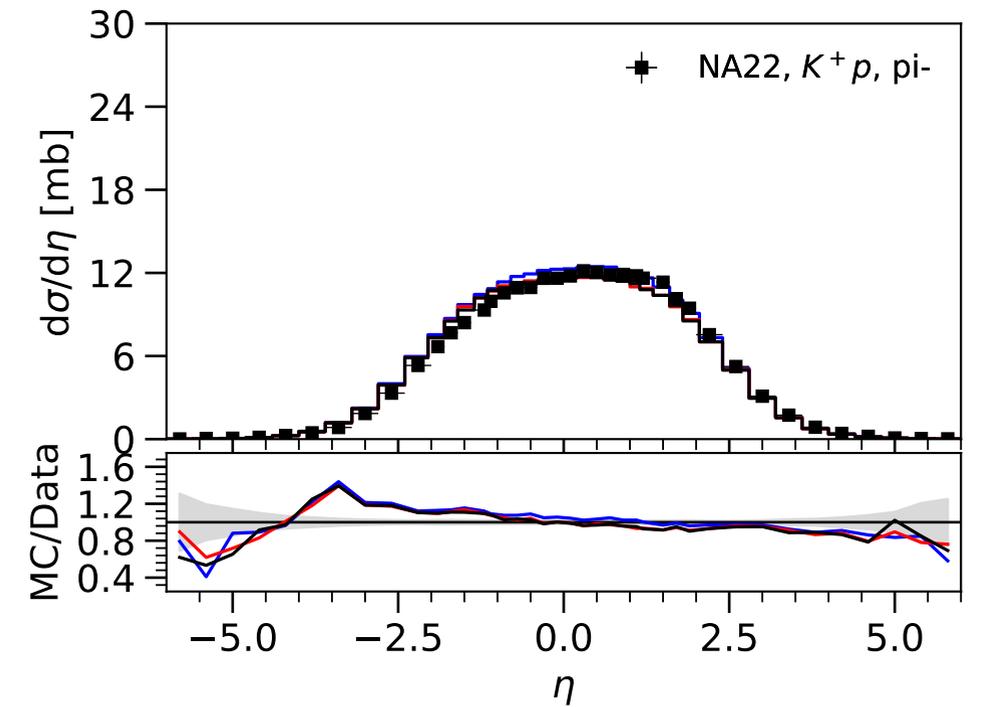
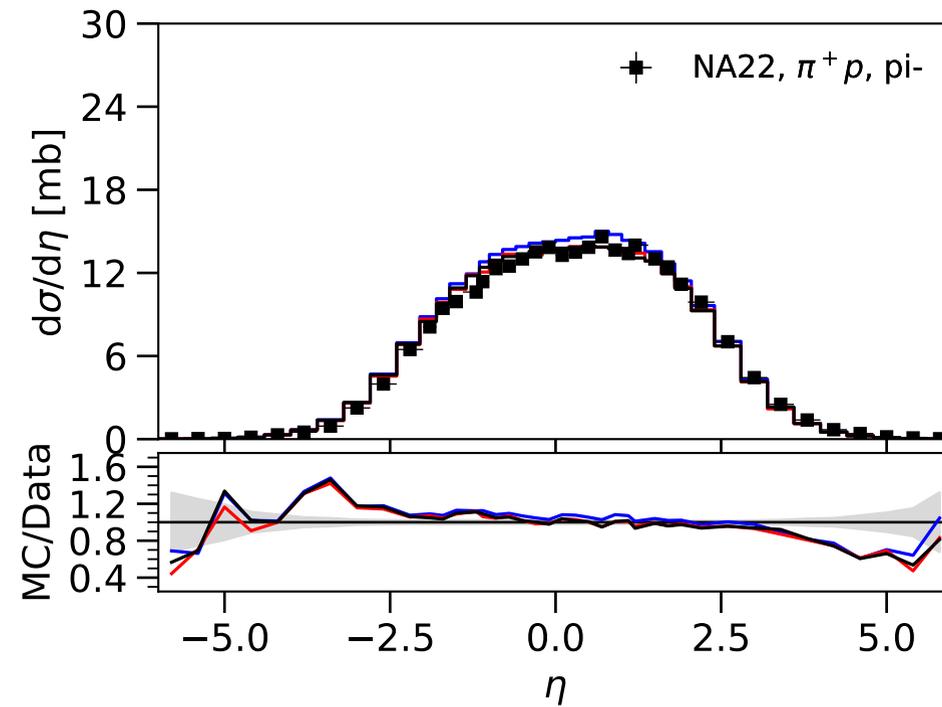
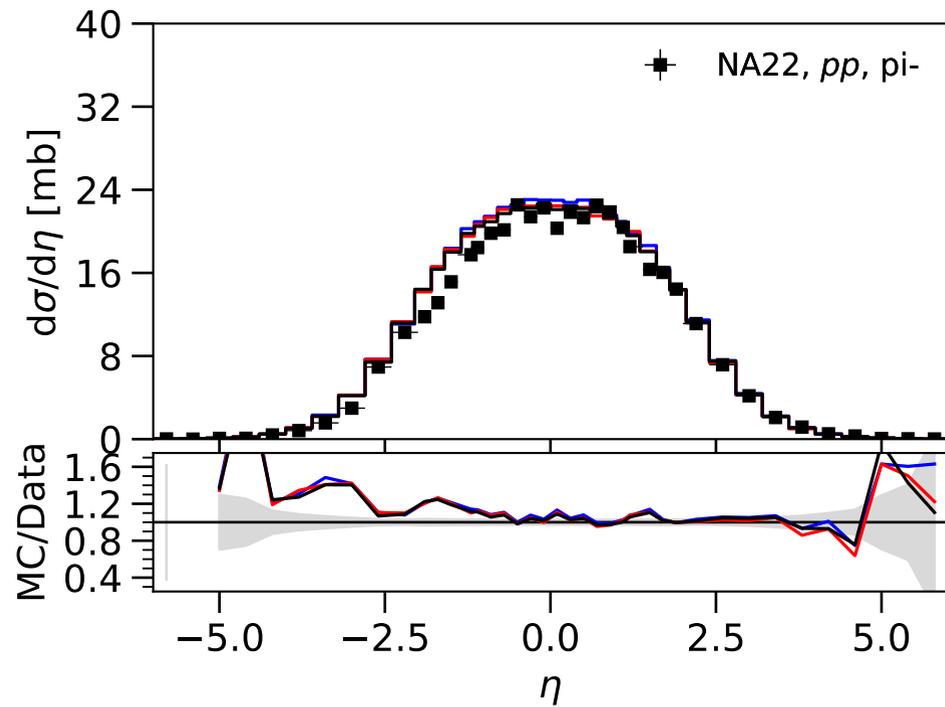
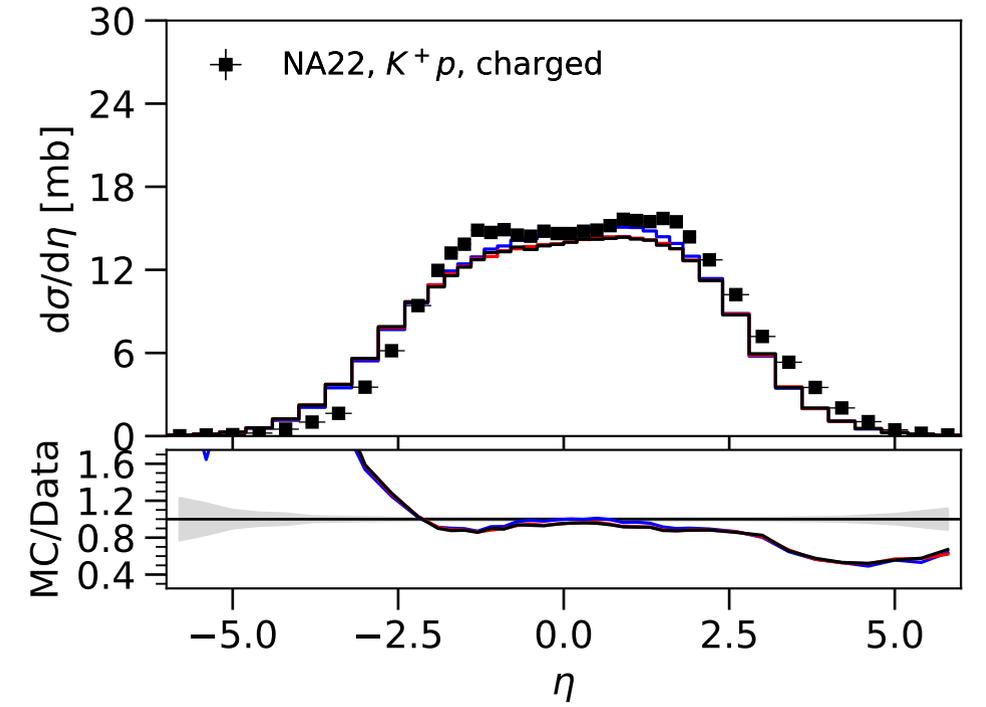
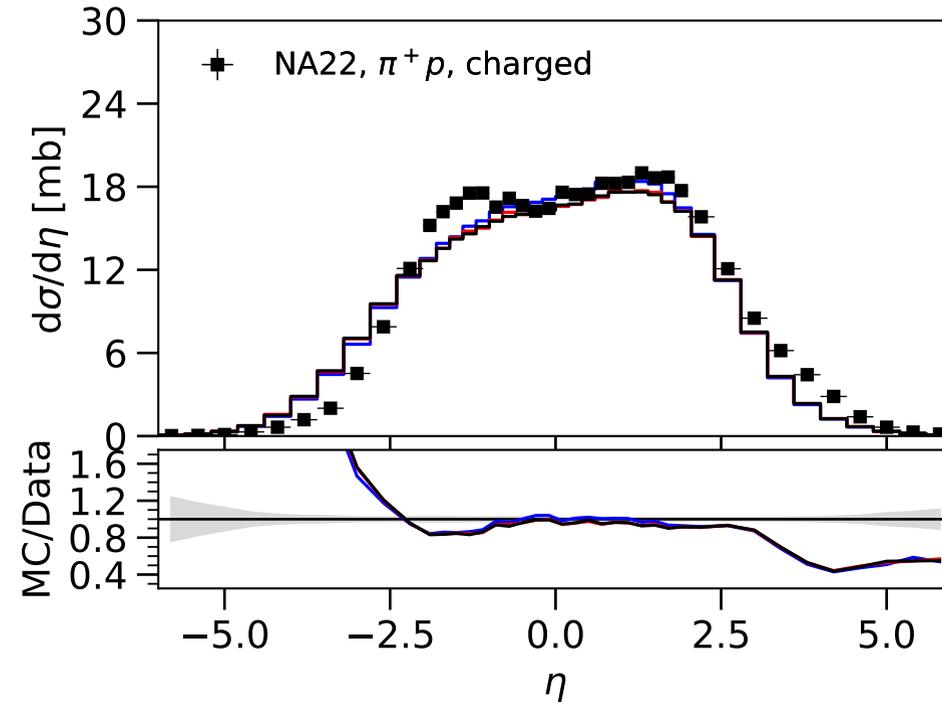
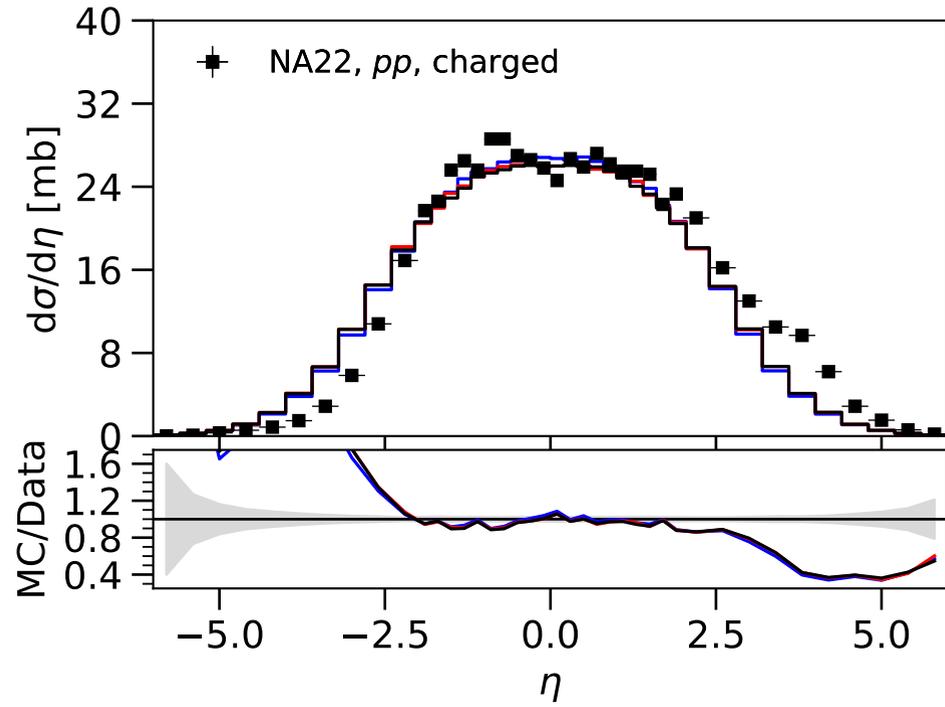


y - NA27 pp collisions at 158 GeV

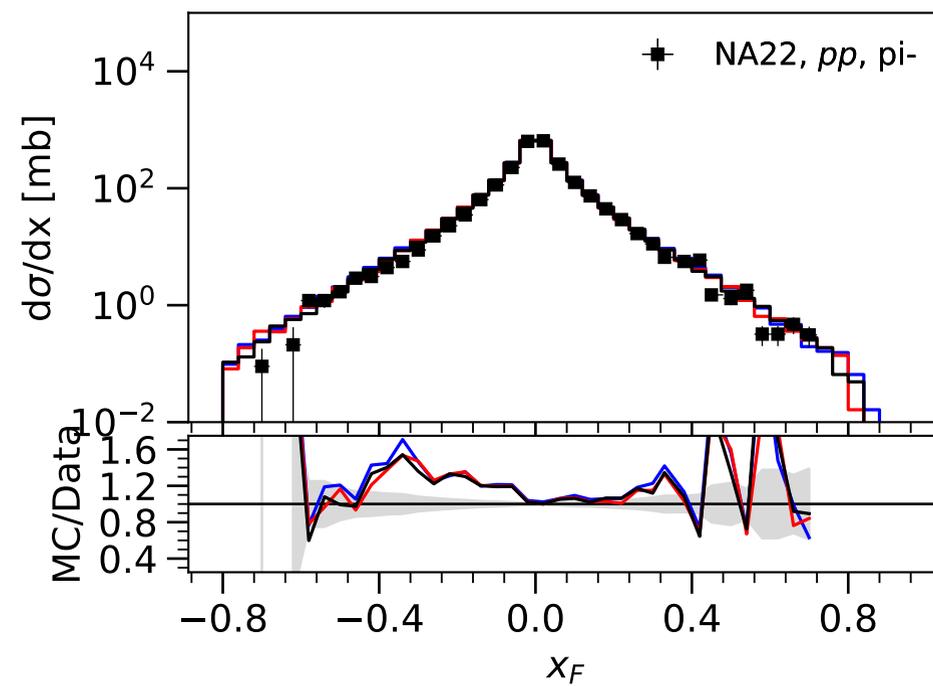
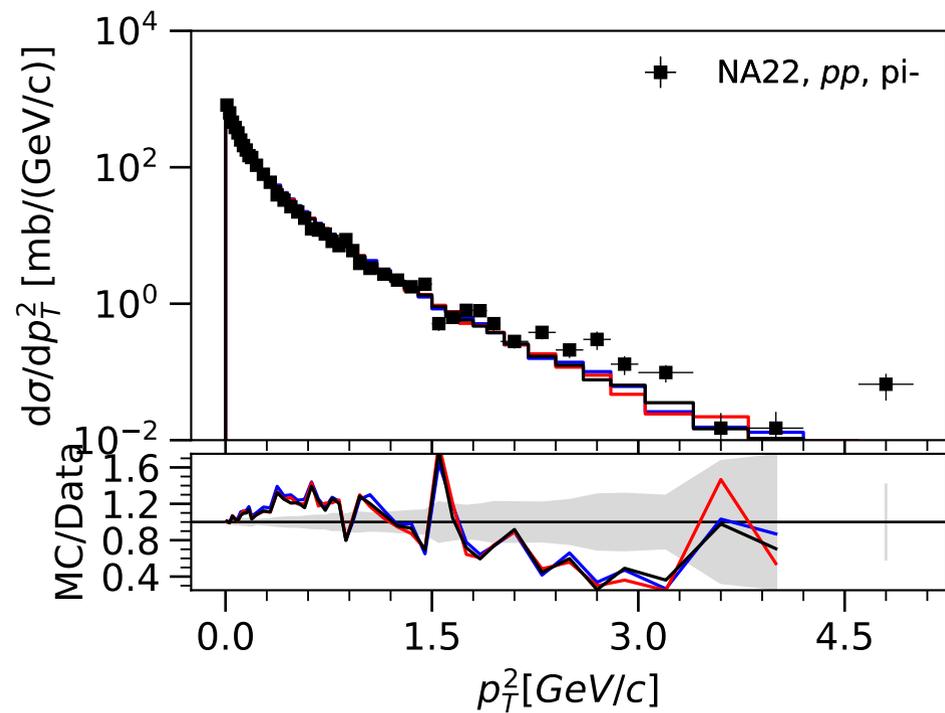
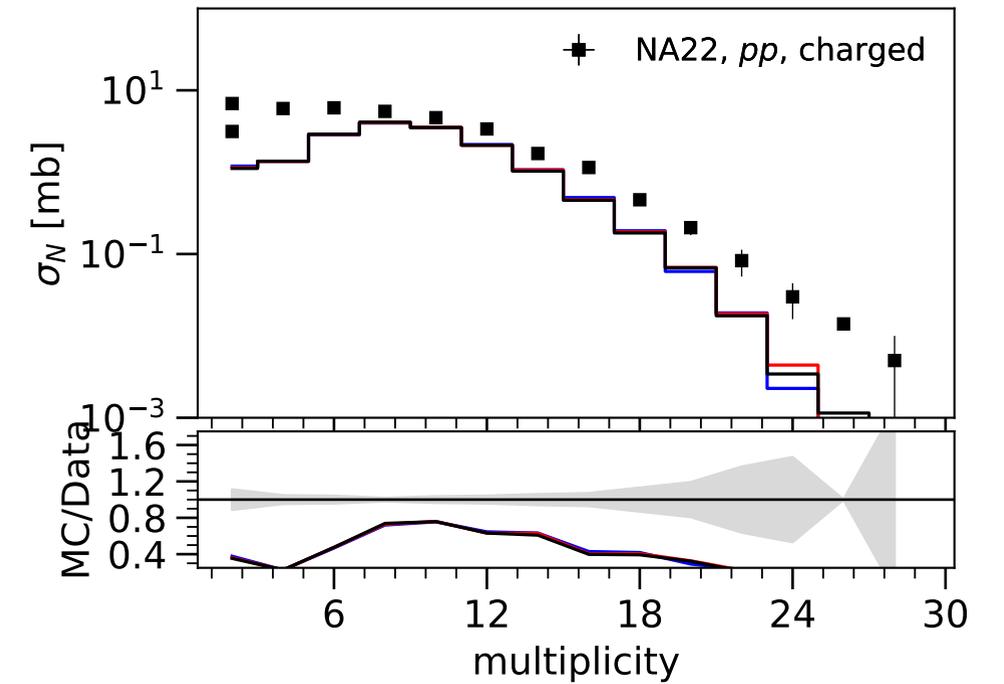
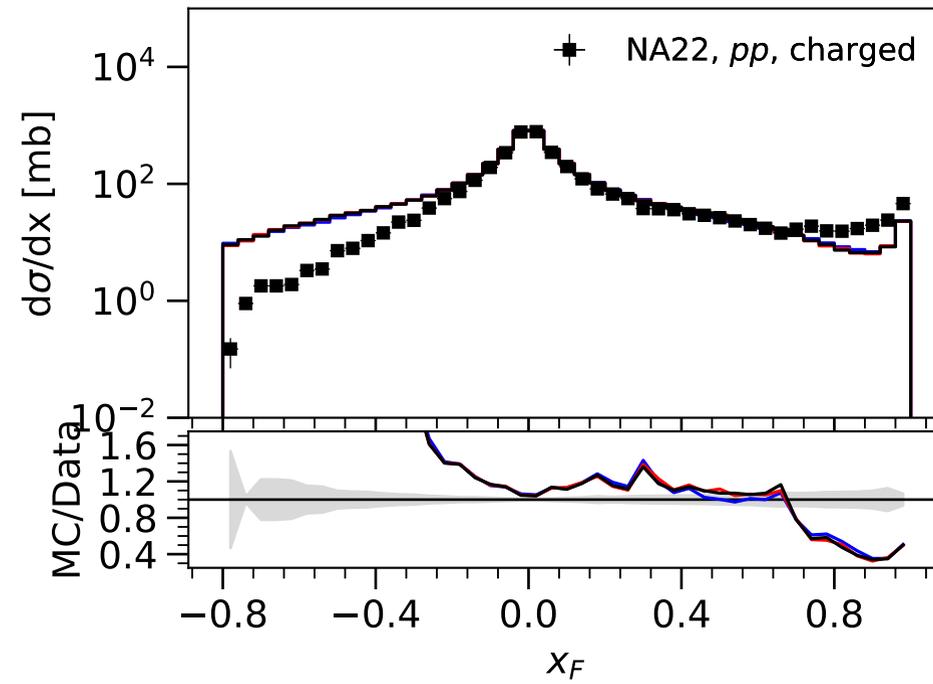
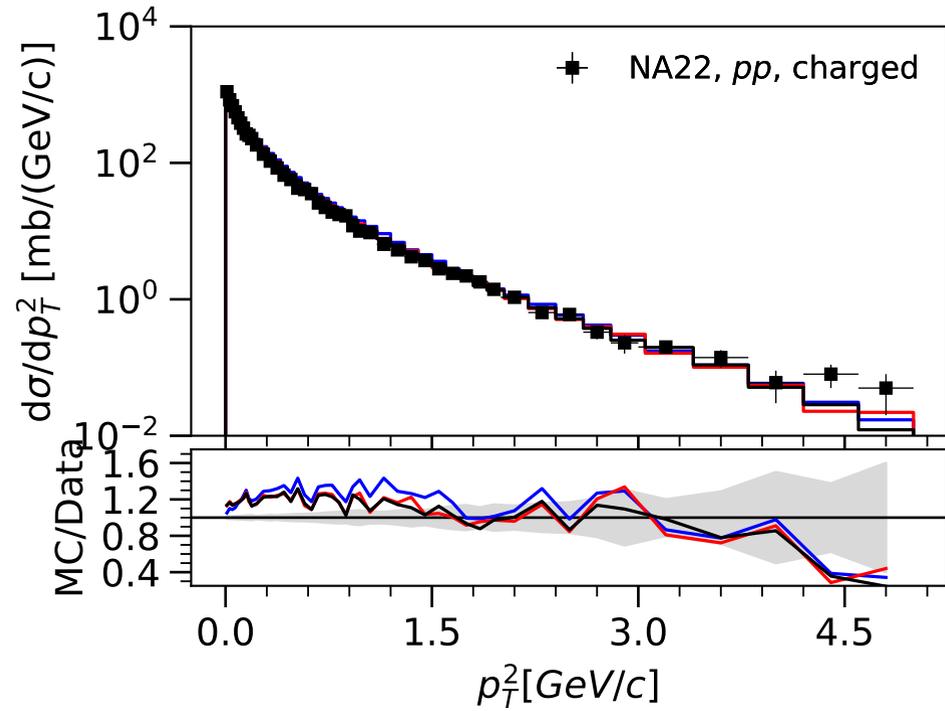


NA22: $p^-/\pi^-/K^-$ -proton

η - NA22 pp , $\pi^+ p$ and $K^+ p$ collisions at 250 GeV

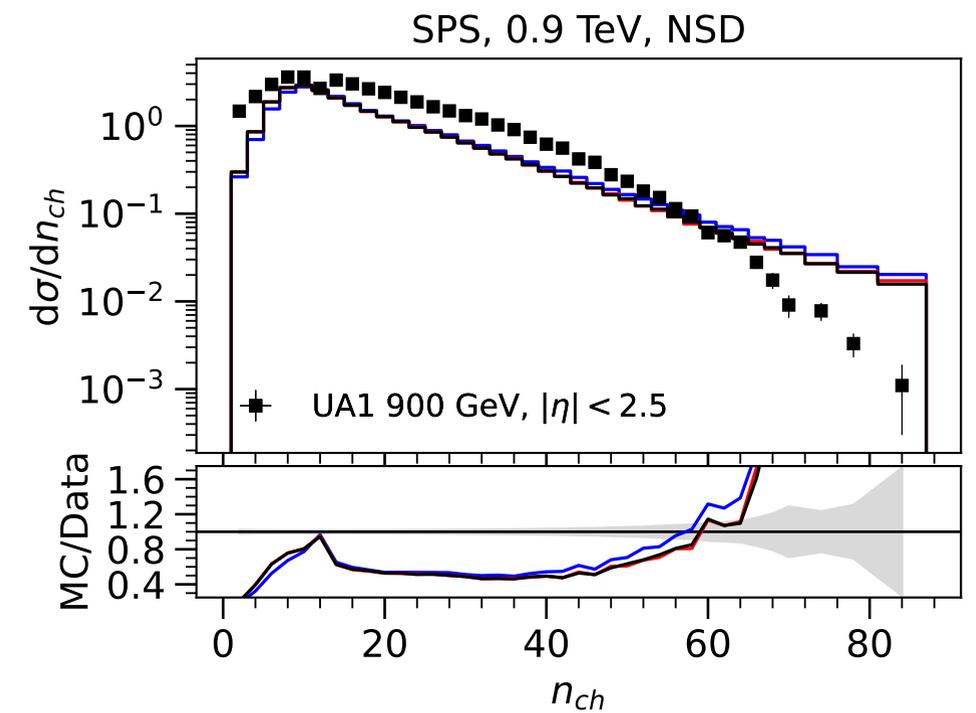
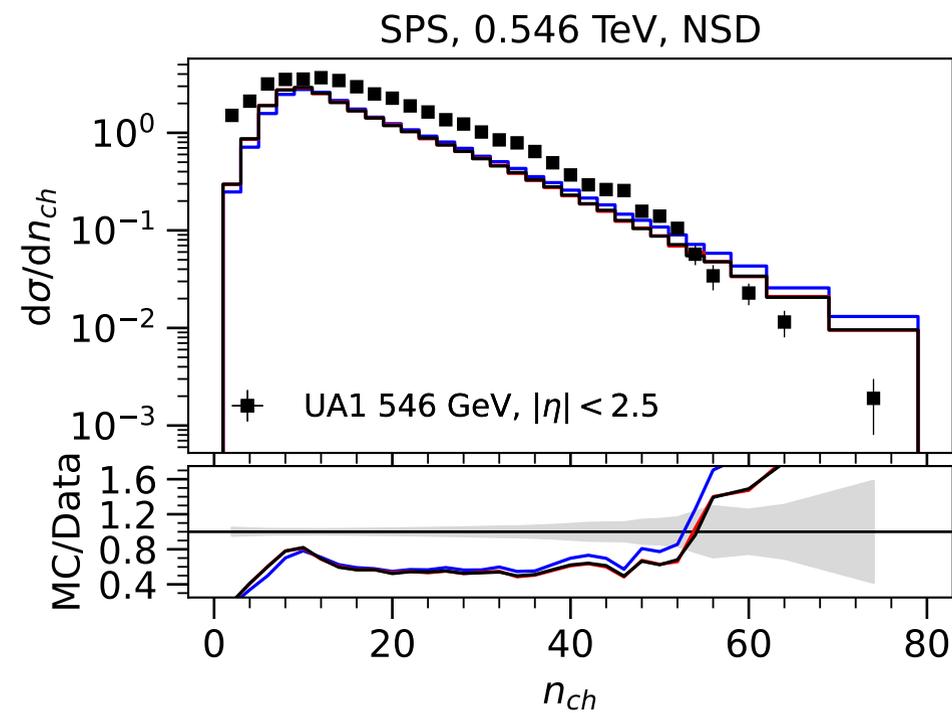
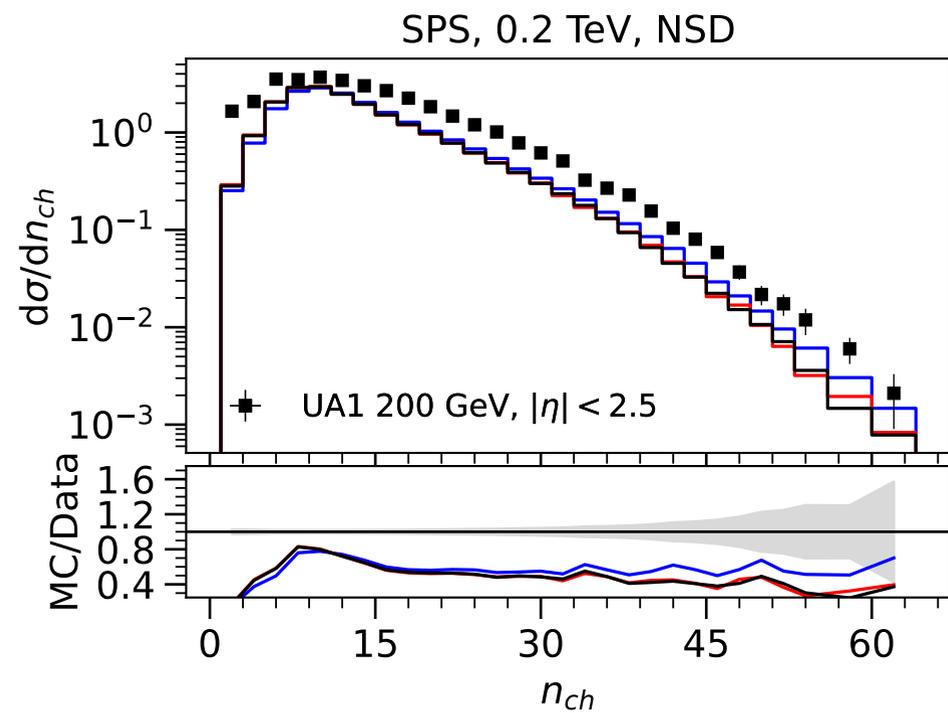
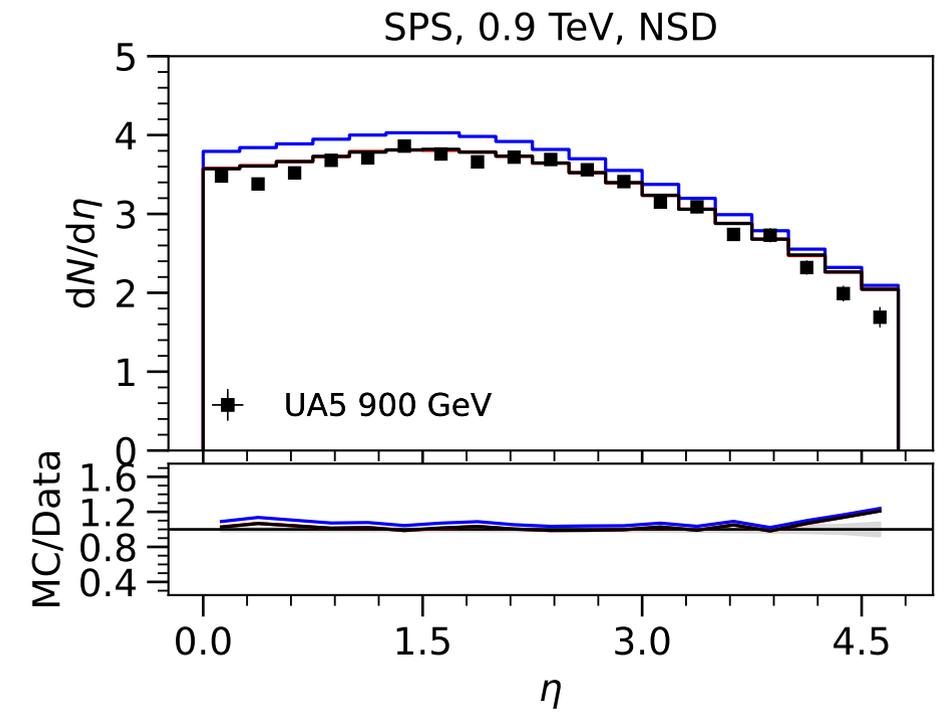
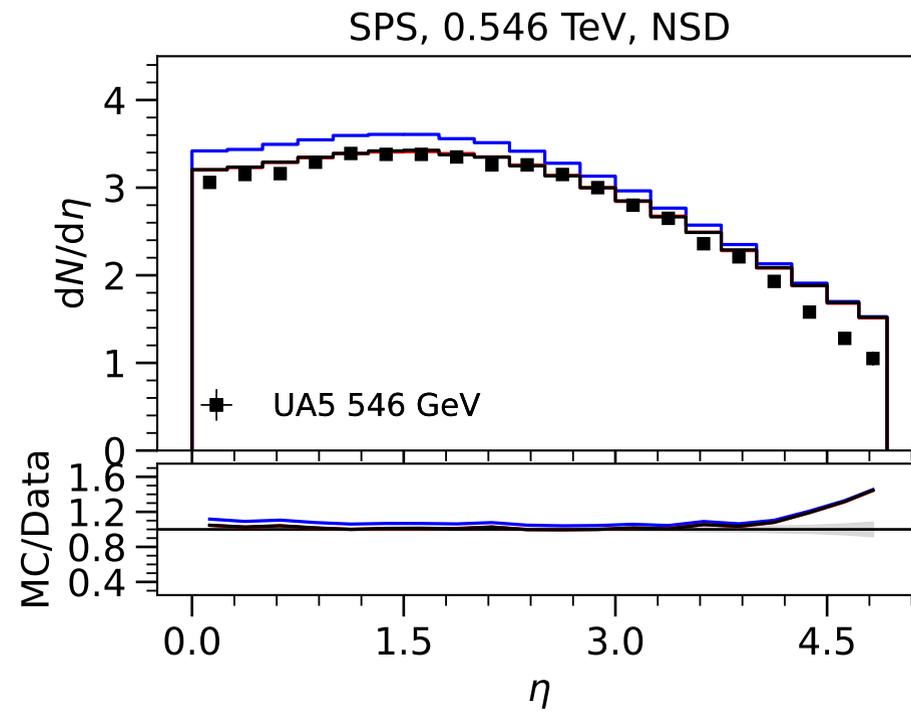
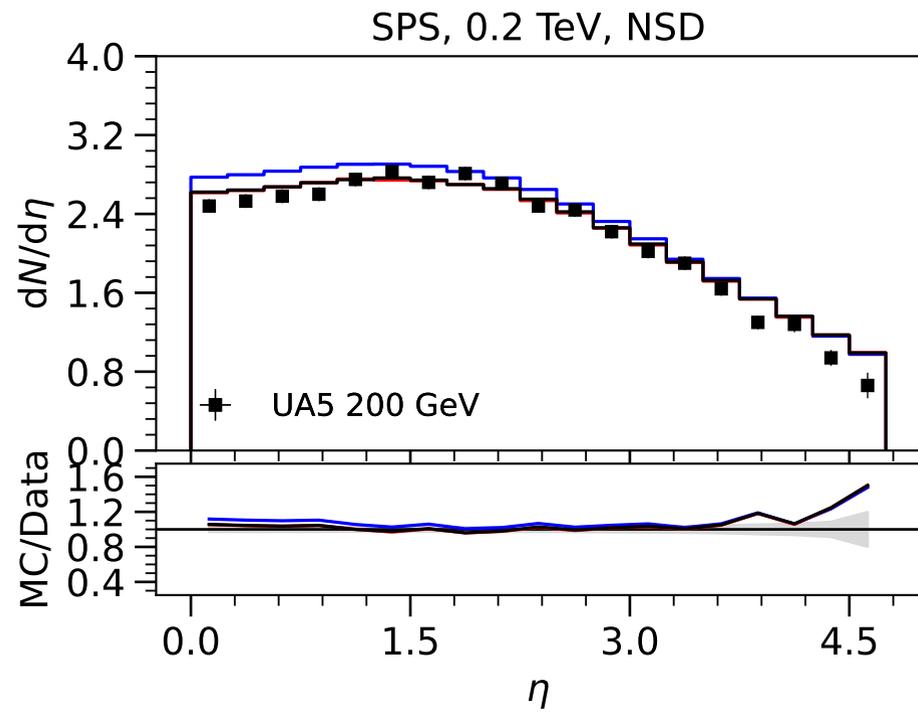


y - NA22 pp collisions at 250 GeV

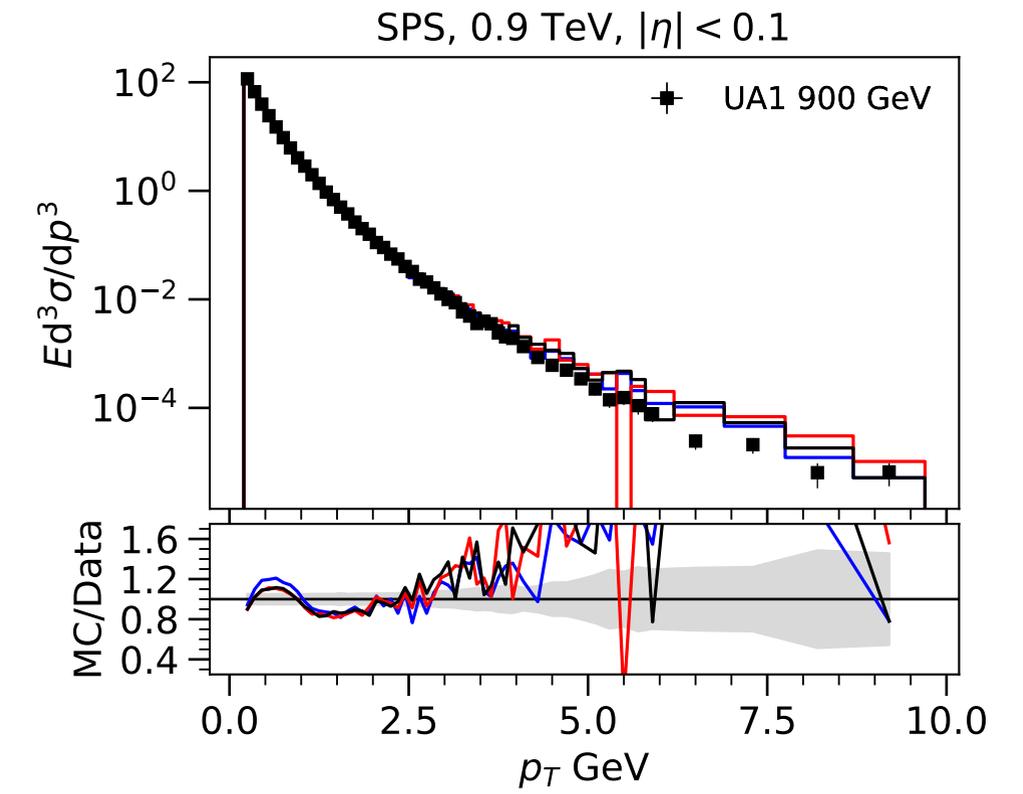
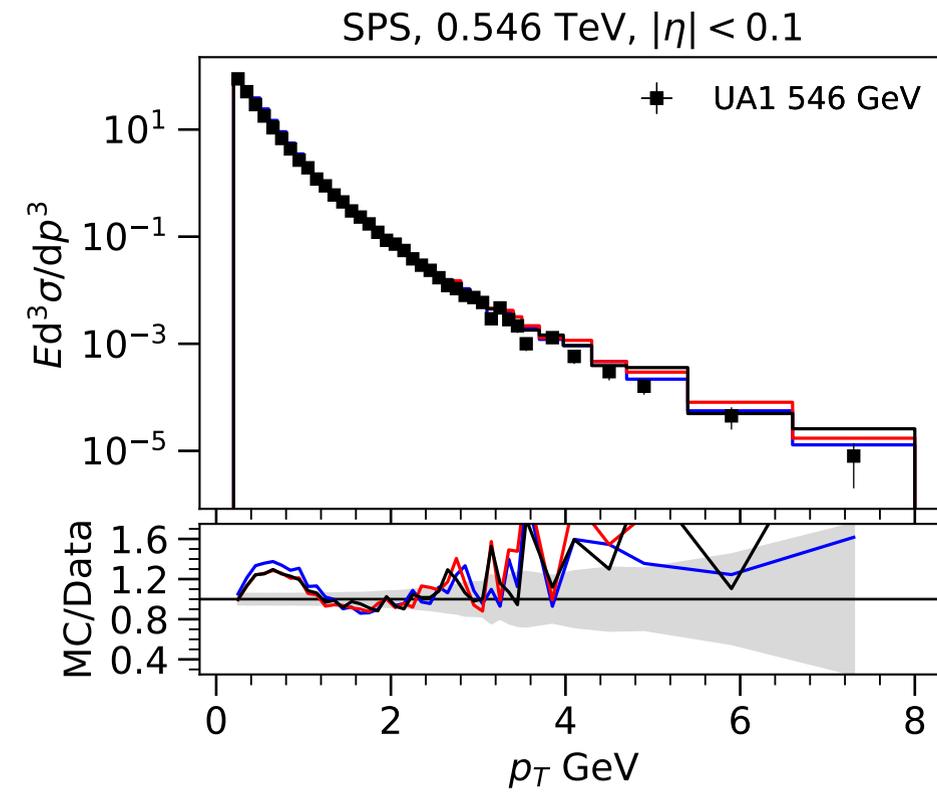
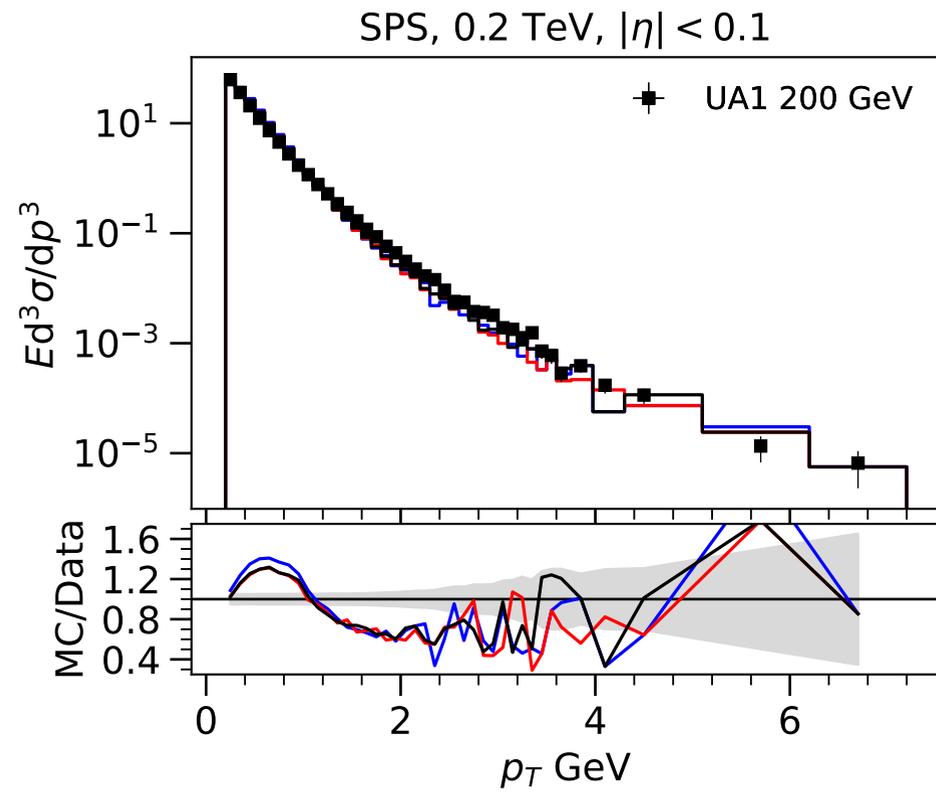


SPS: Minimum Bias

SPS - NSD multiplicity and η distributions.

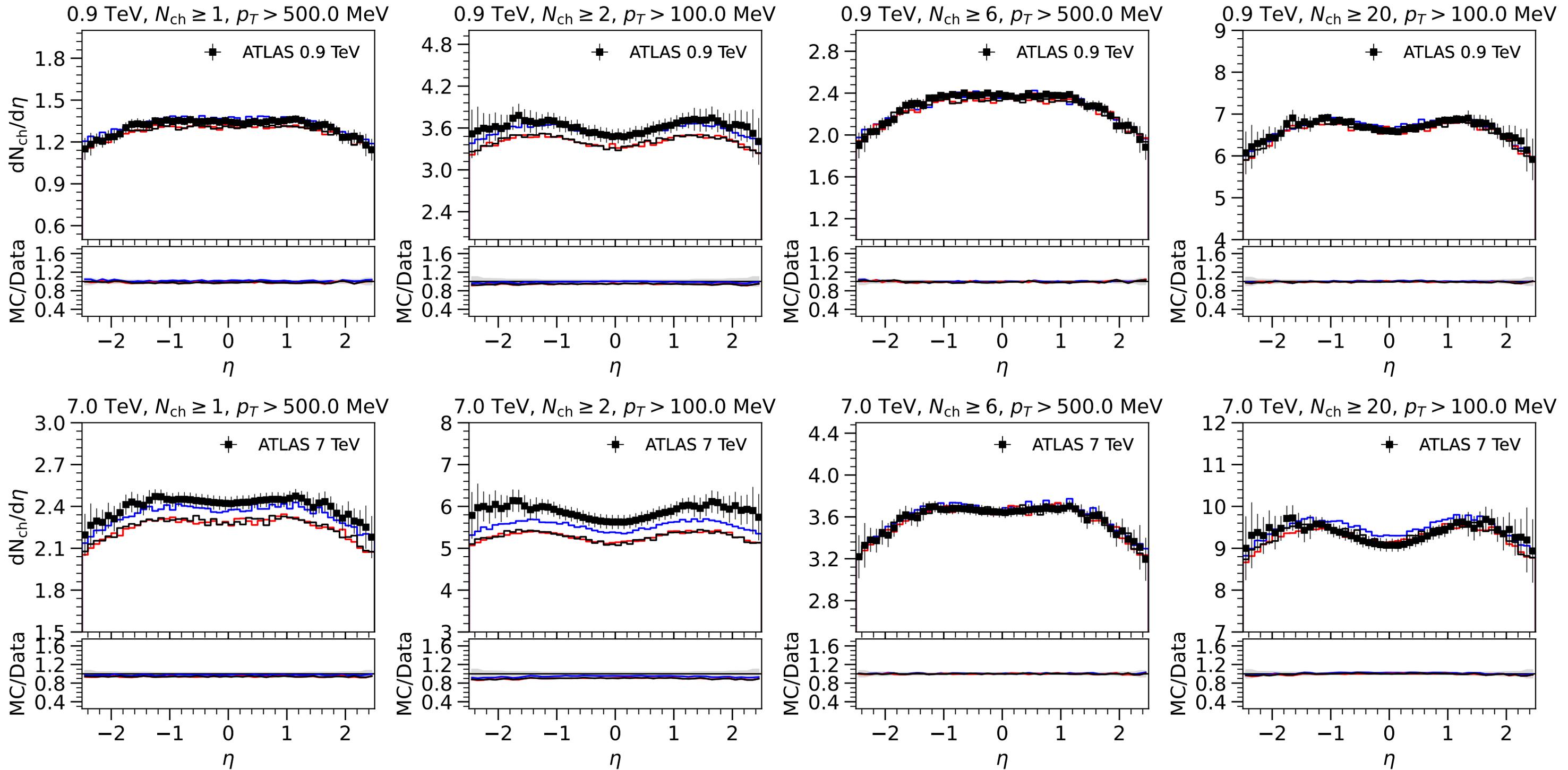


SPS - NSD Invariant crosssection in $|\eta| < 0.1$

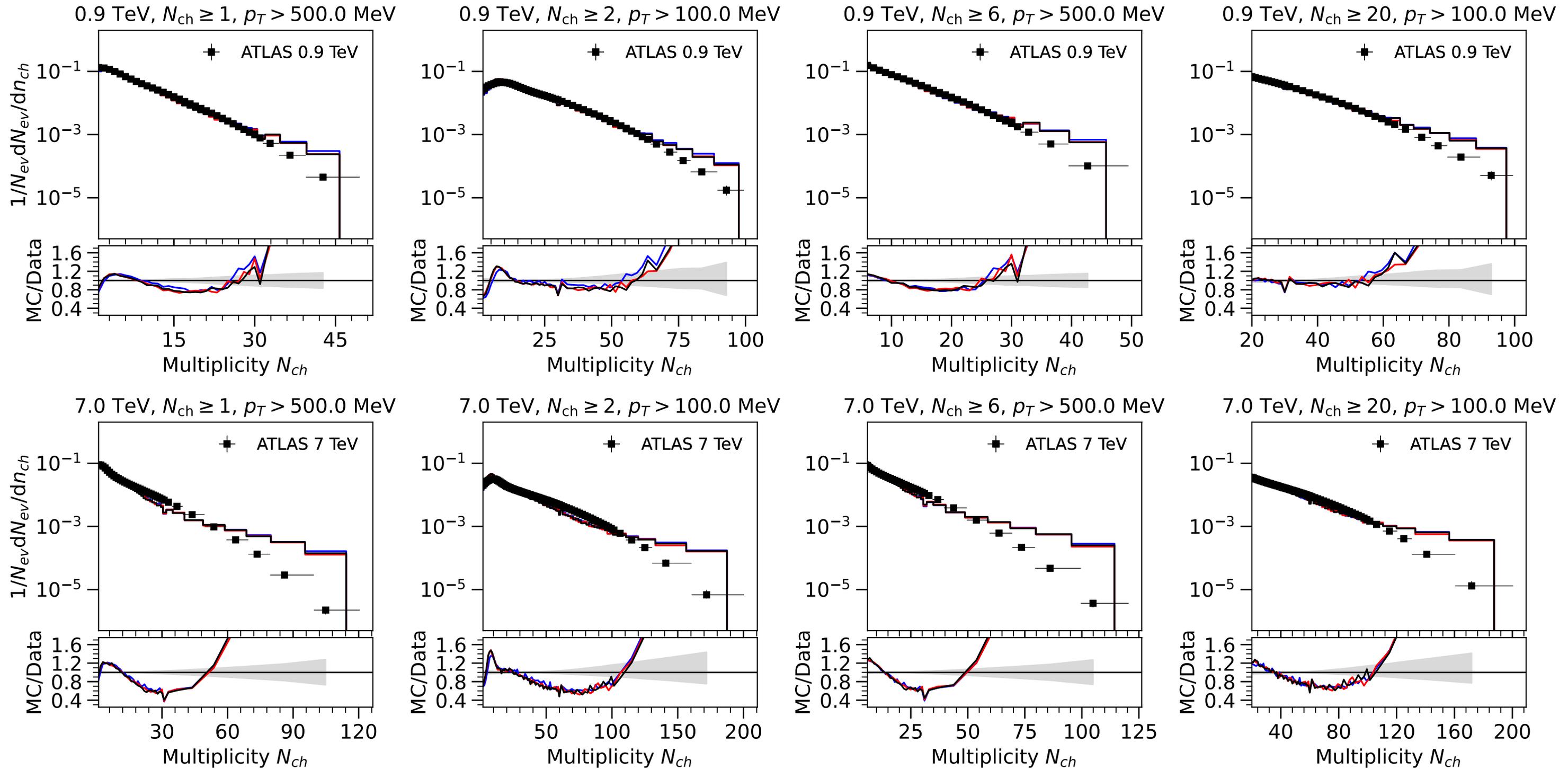


LHC: ATLAS Minimum Bias

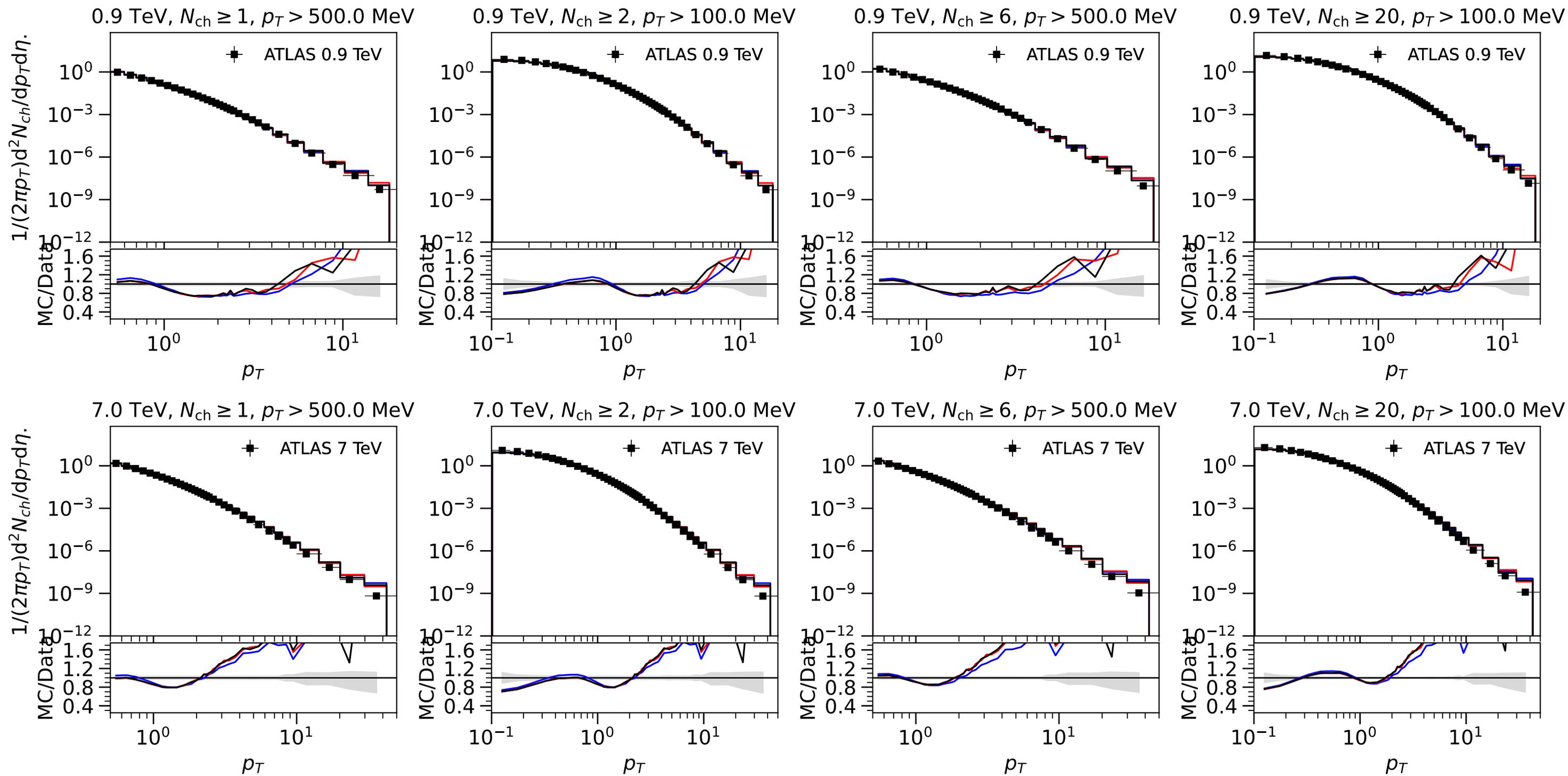
ATLAS - Charged particle pseudorapidity density.



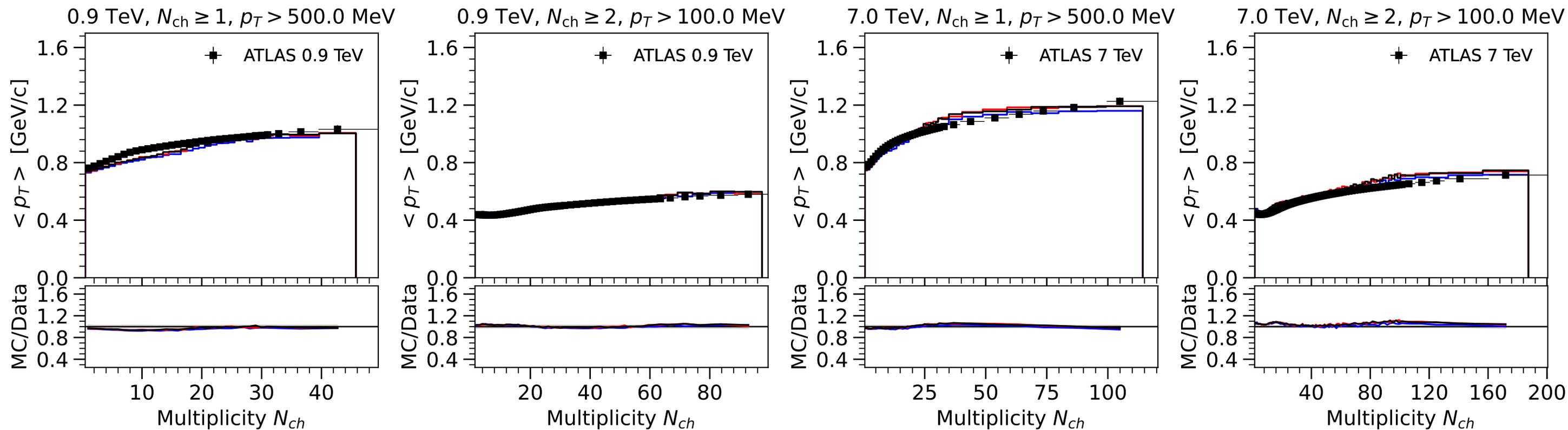
ATLAS - Charged particle multiplicity distributions.



ATLAS - Transverse momentum distributions.

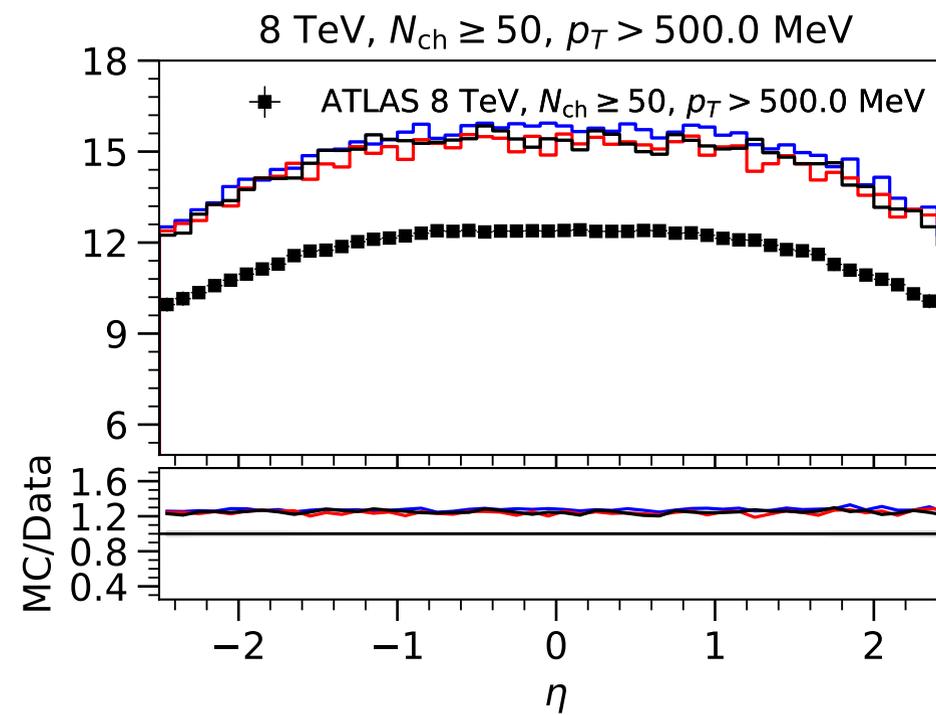
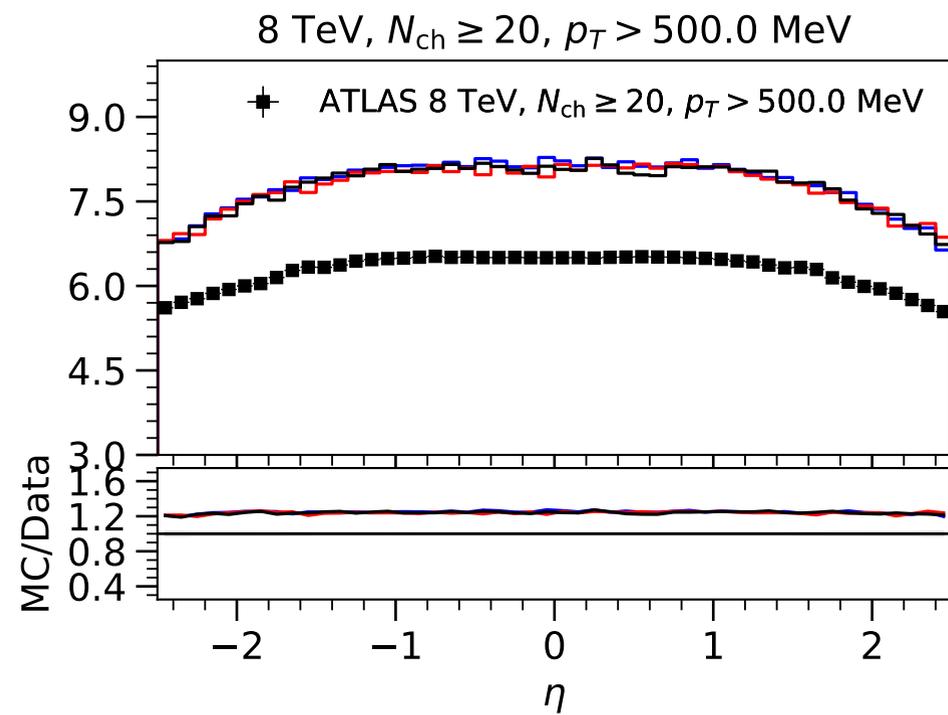
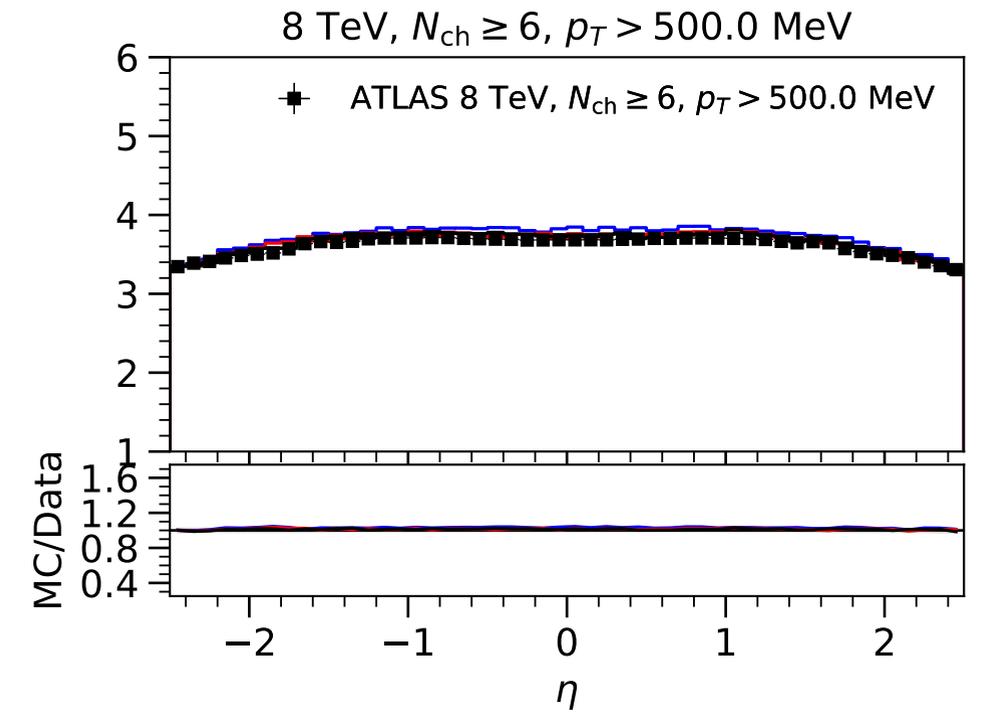
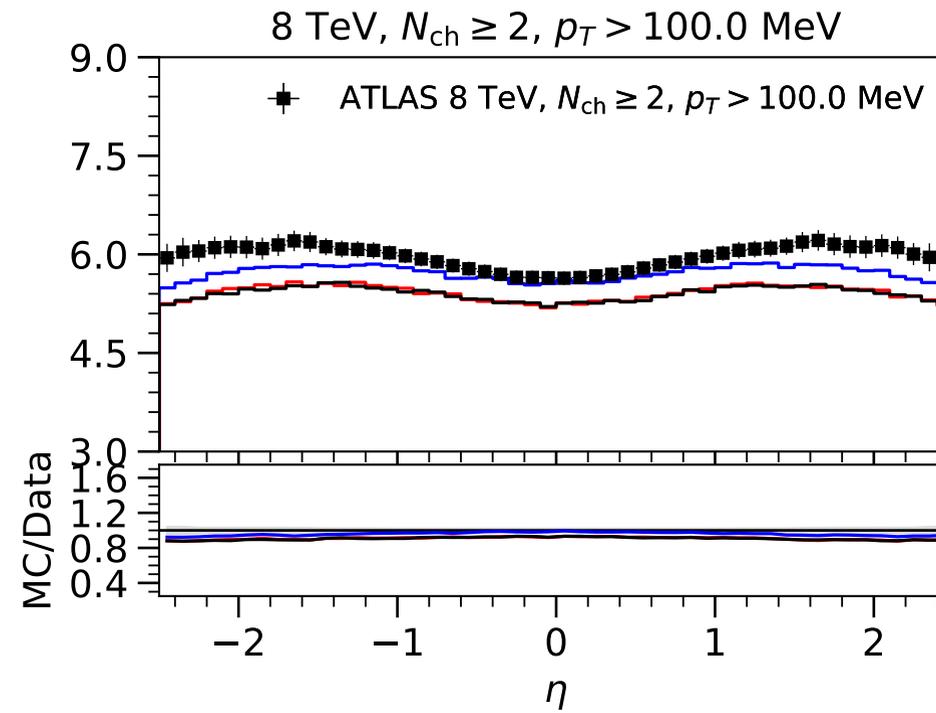
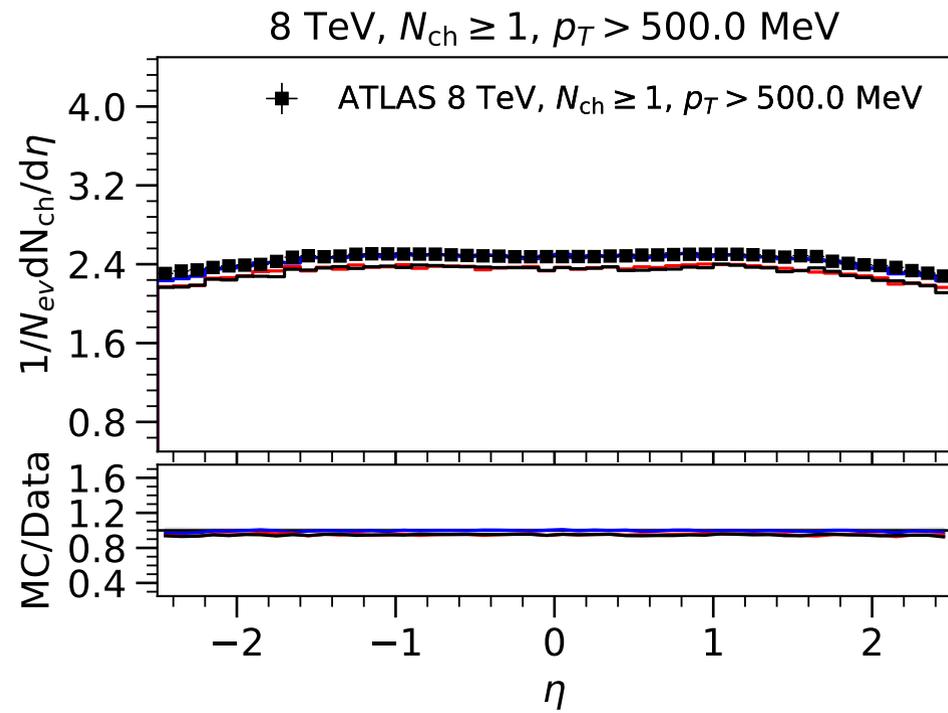


ATLAS - average p_T for multiplicity bins.

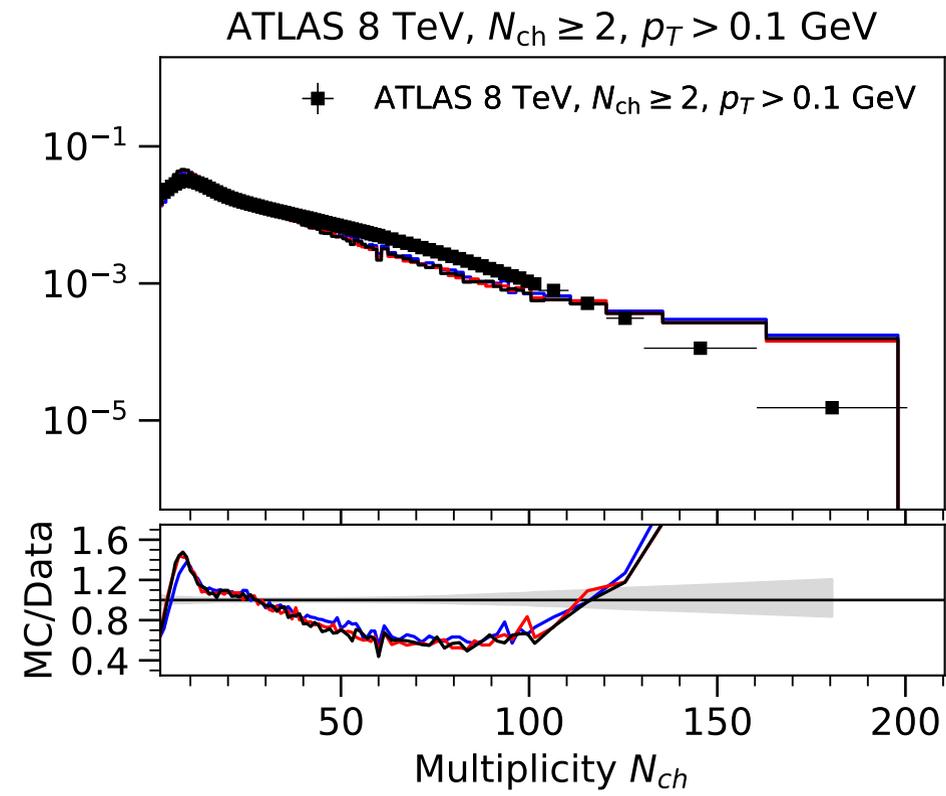
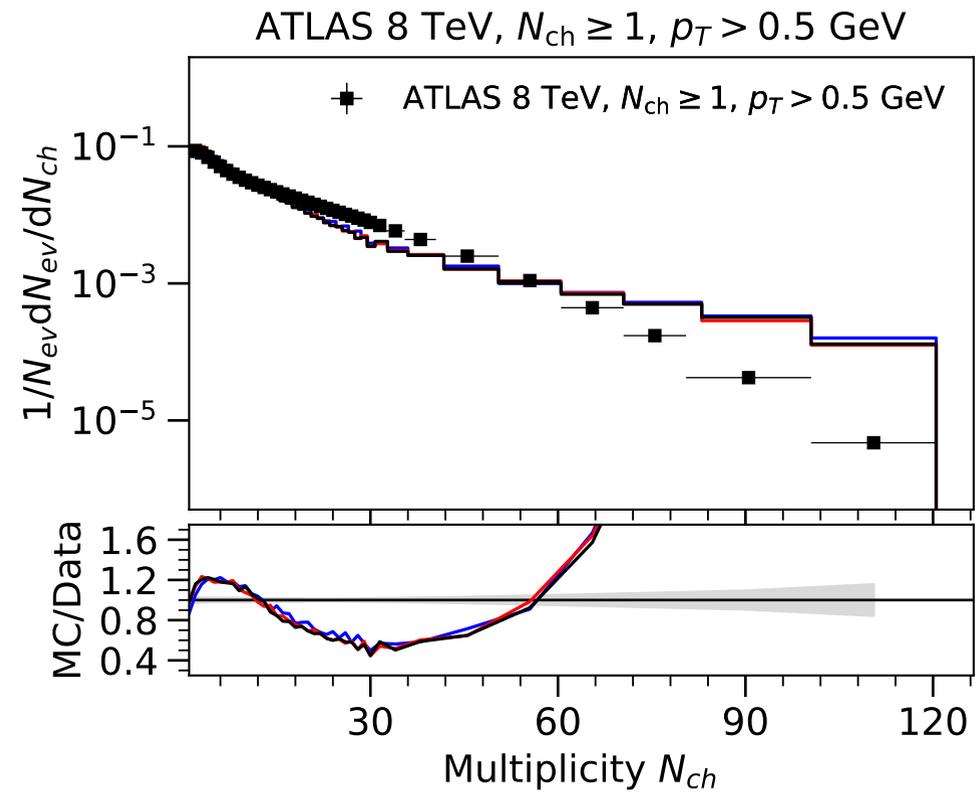


LHC: ATLAS Minimum Bias 8 TeV

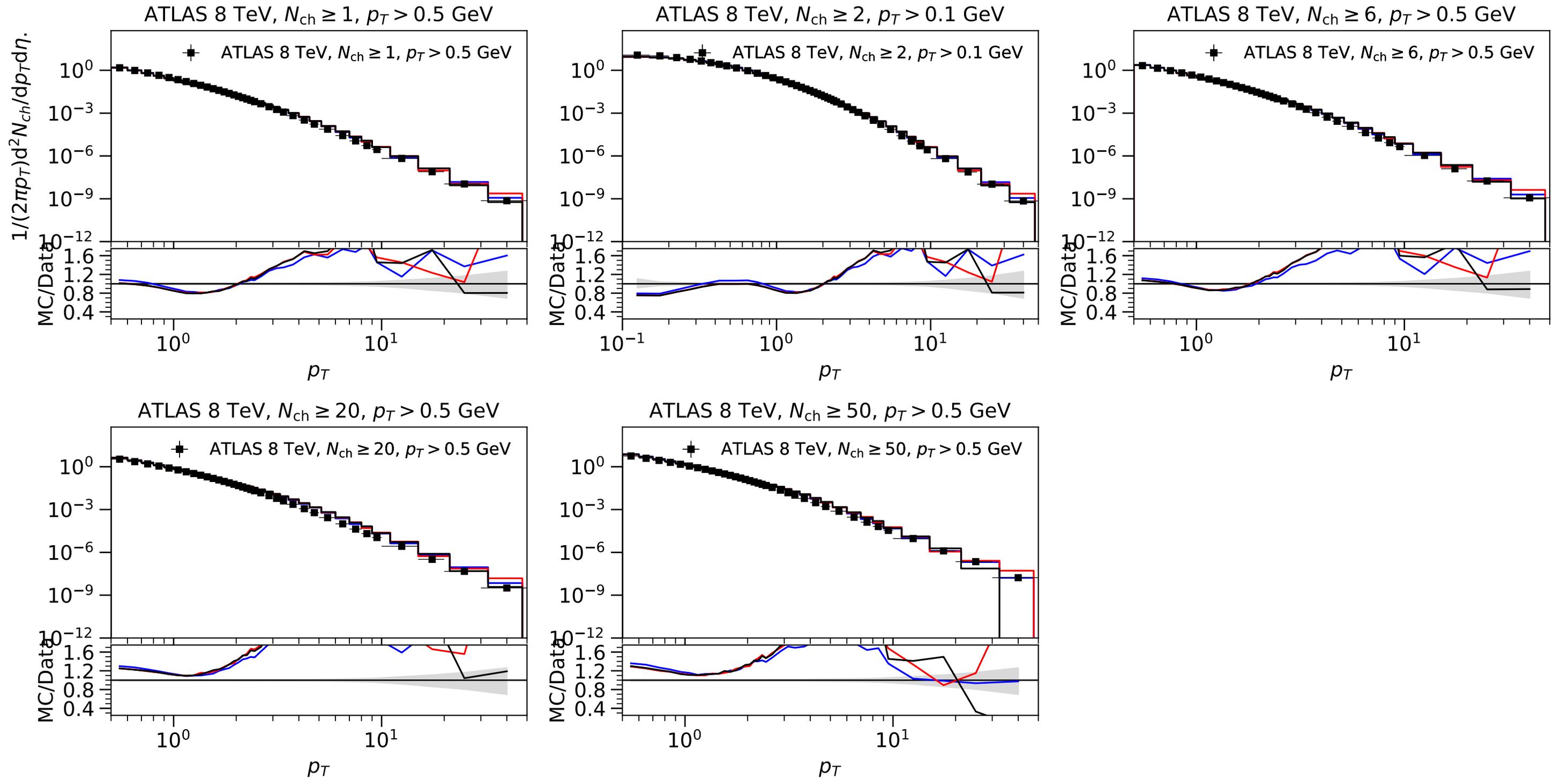
ATLAS - Charged particle pseudorapidity density.



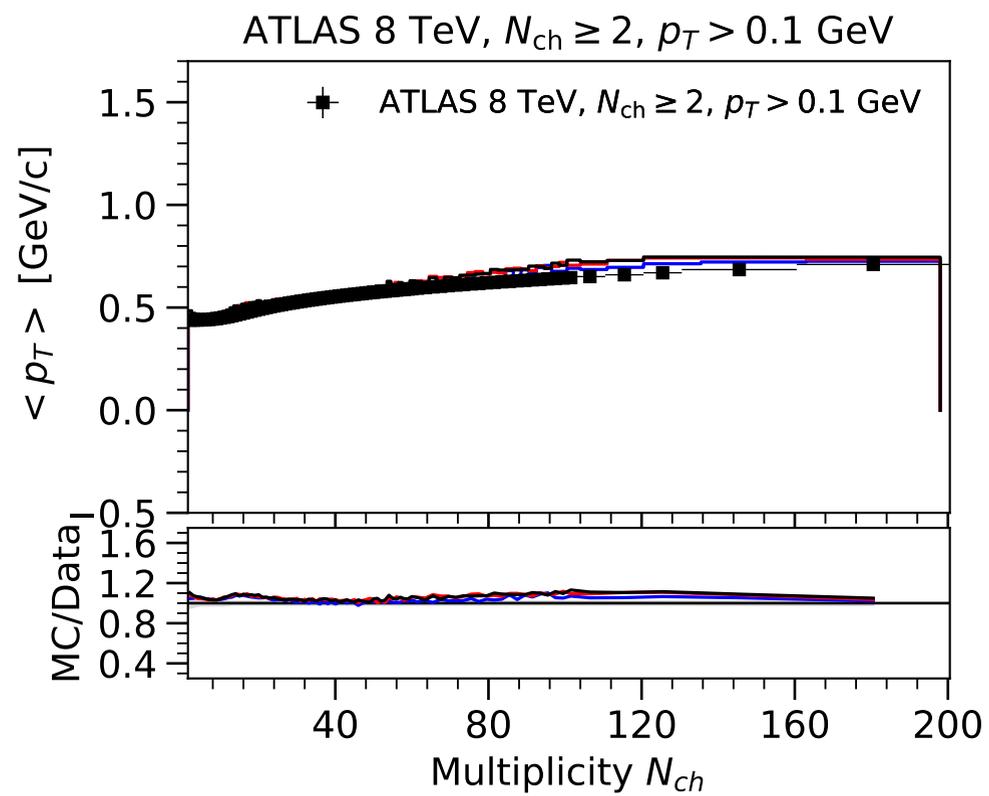
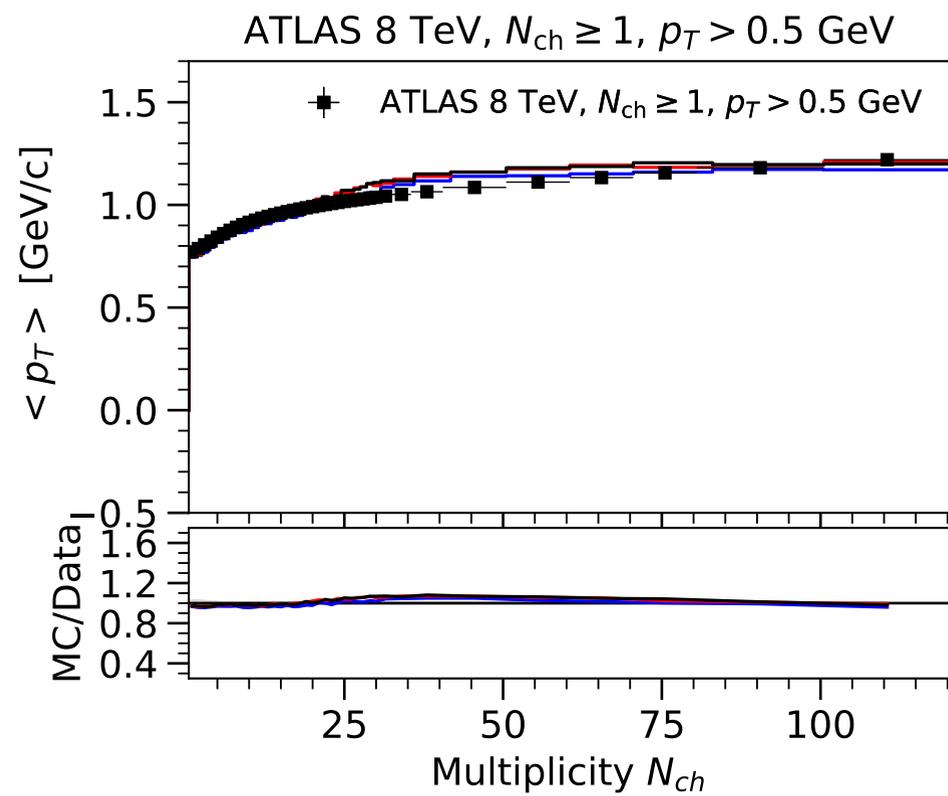
ATLAS - Charged particle multiplicity distributions.



ATLAS - Transverse momentum distributions.

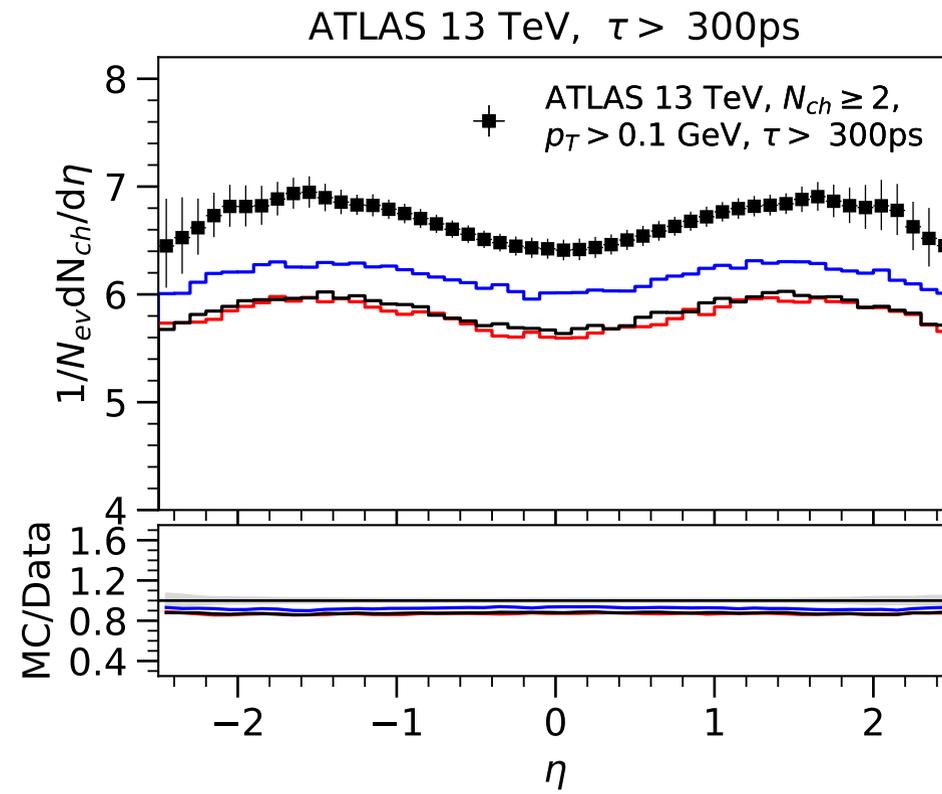
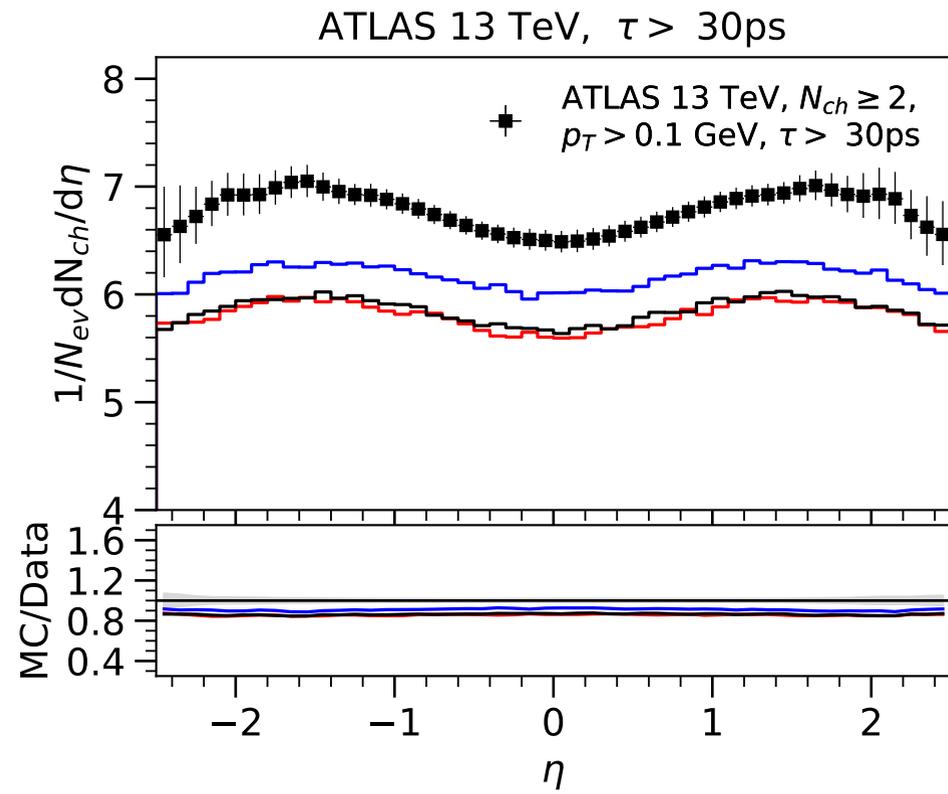


ATLAS - Average p_T for multiplicity bins.

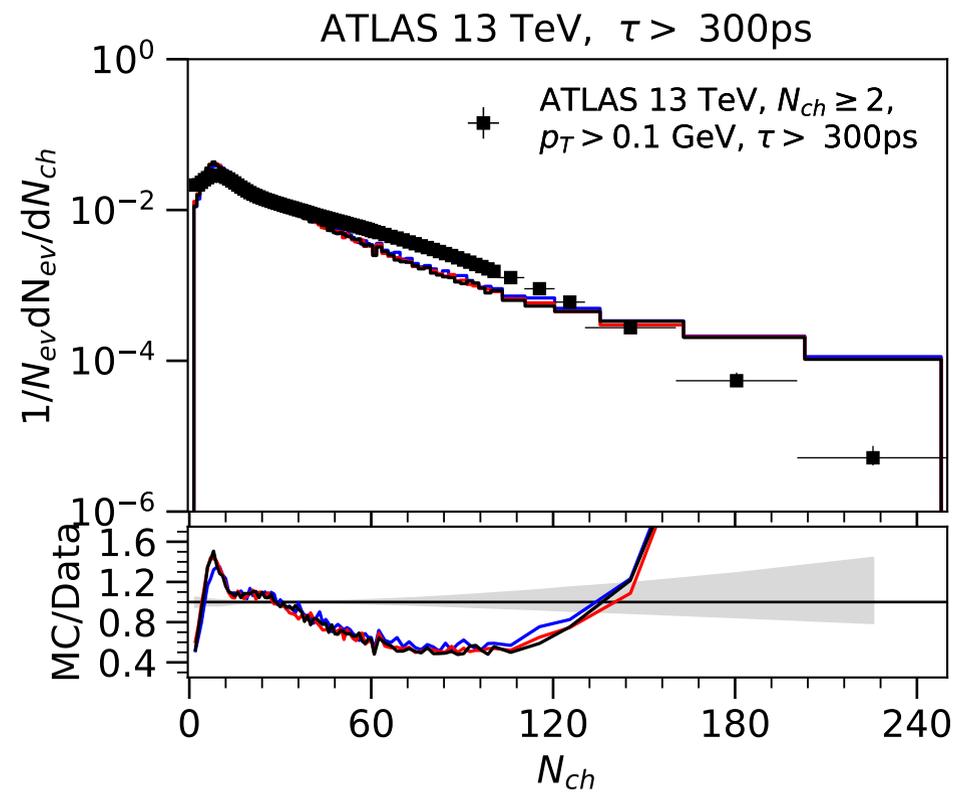
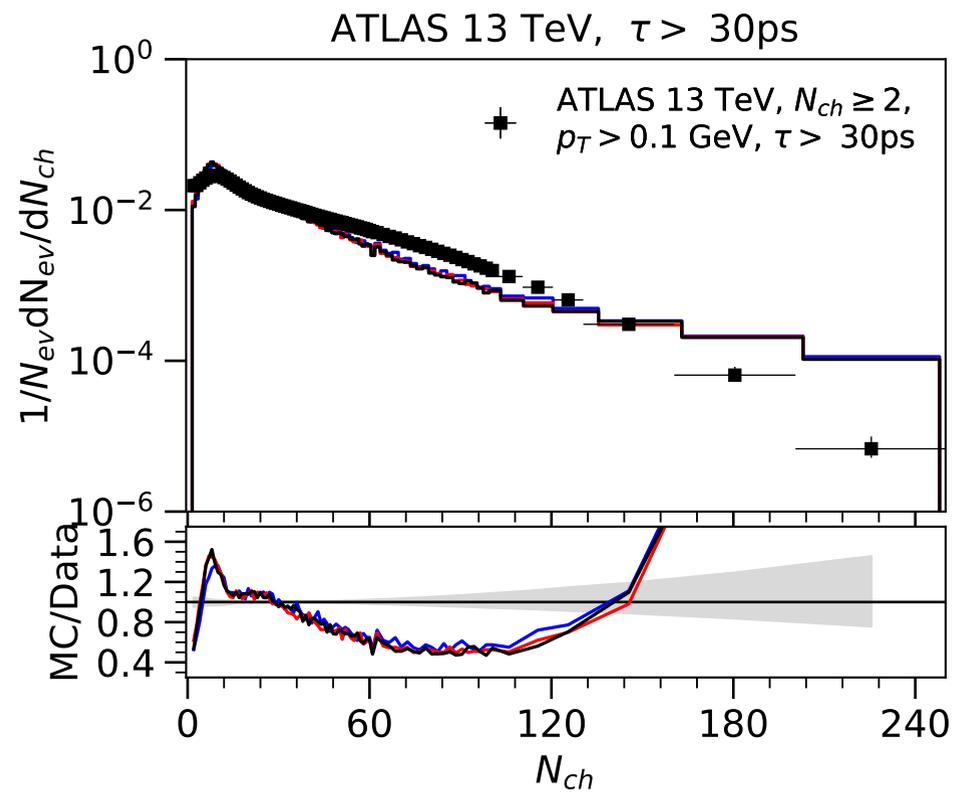


LHC: ATLAS Minimum Bias 13 TeV

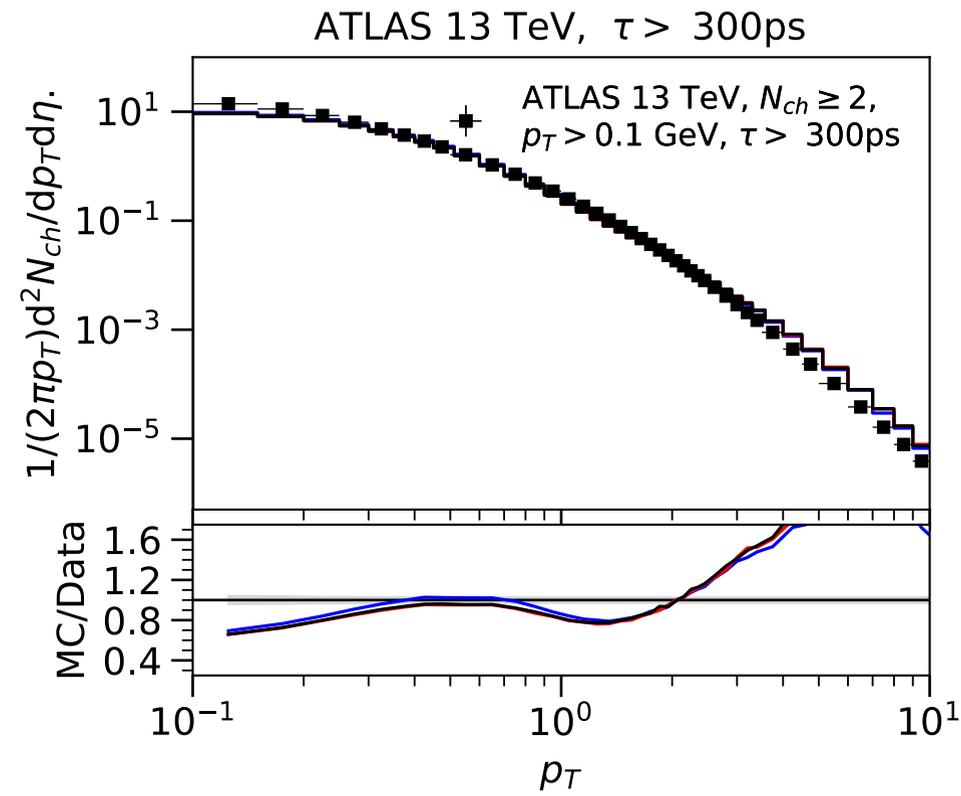
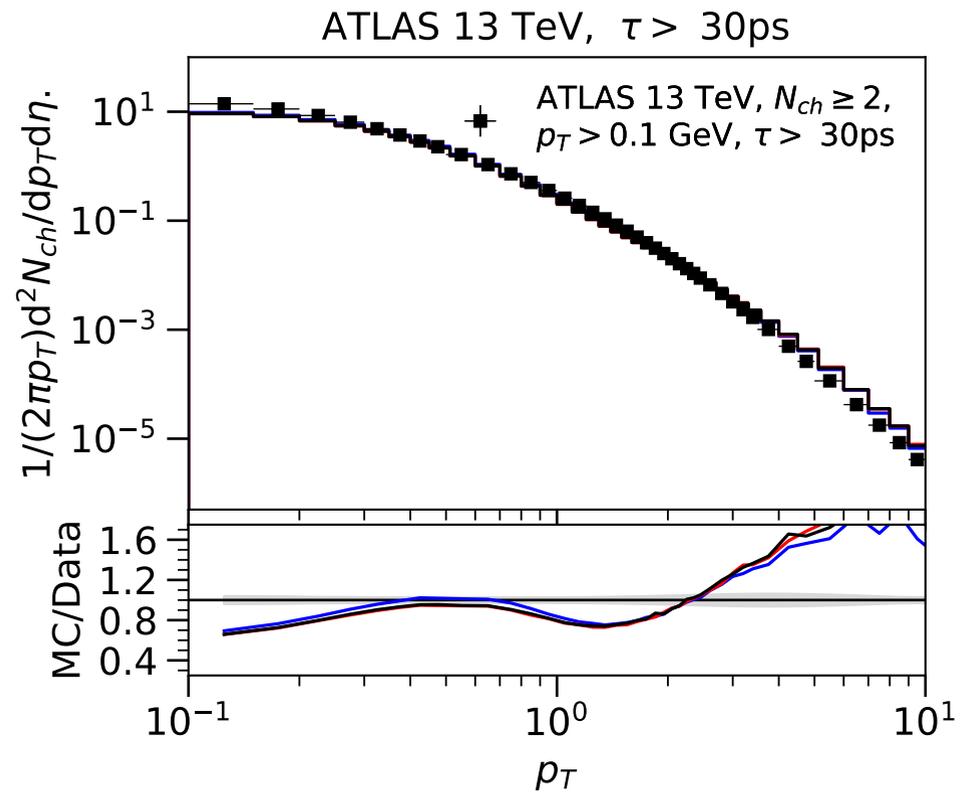
ATLAS 13 TeV - Pseudorapidity distributions.



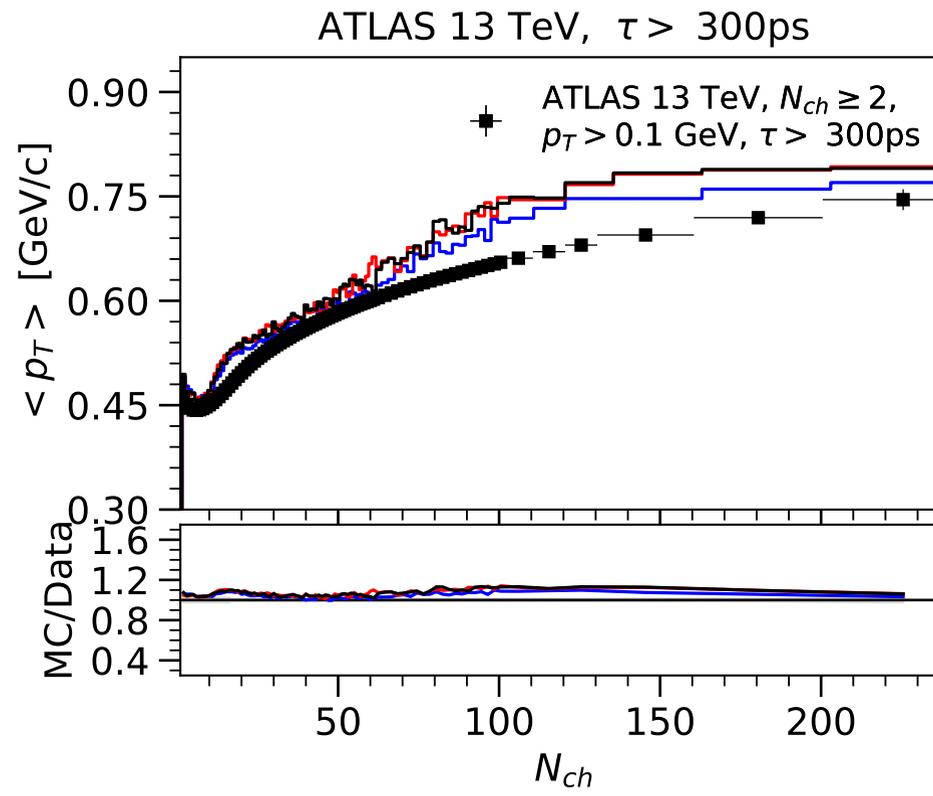
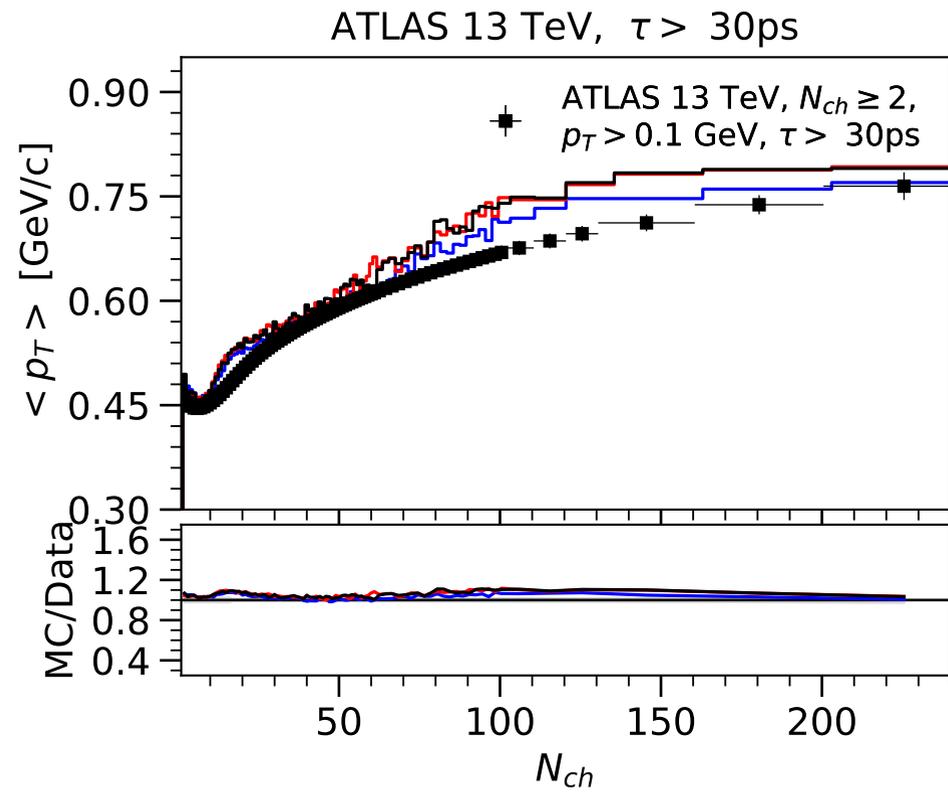
ATLAS 13 TeV - Multiplicity distributions.



ATLAS 13 TeV - Transverse Momentum distributions.

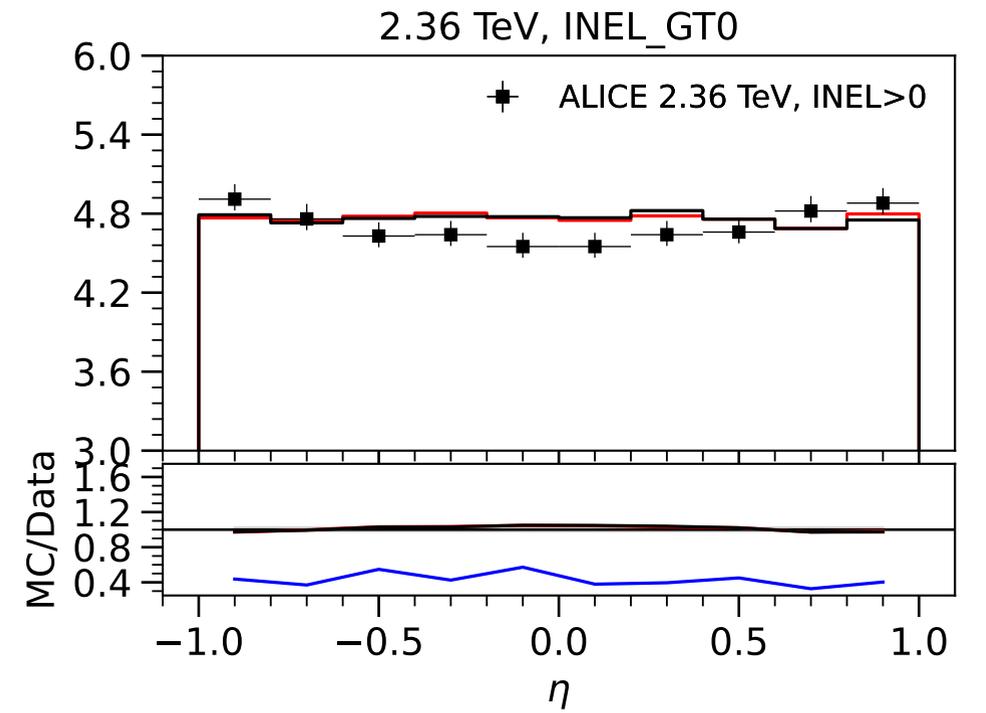
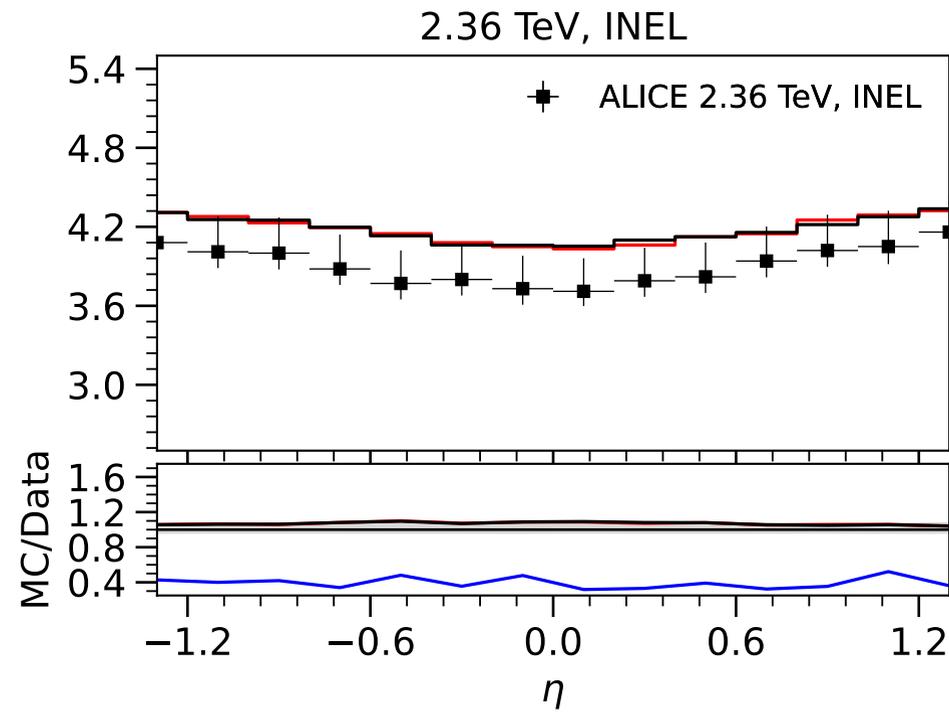
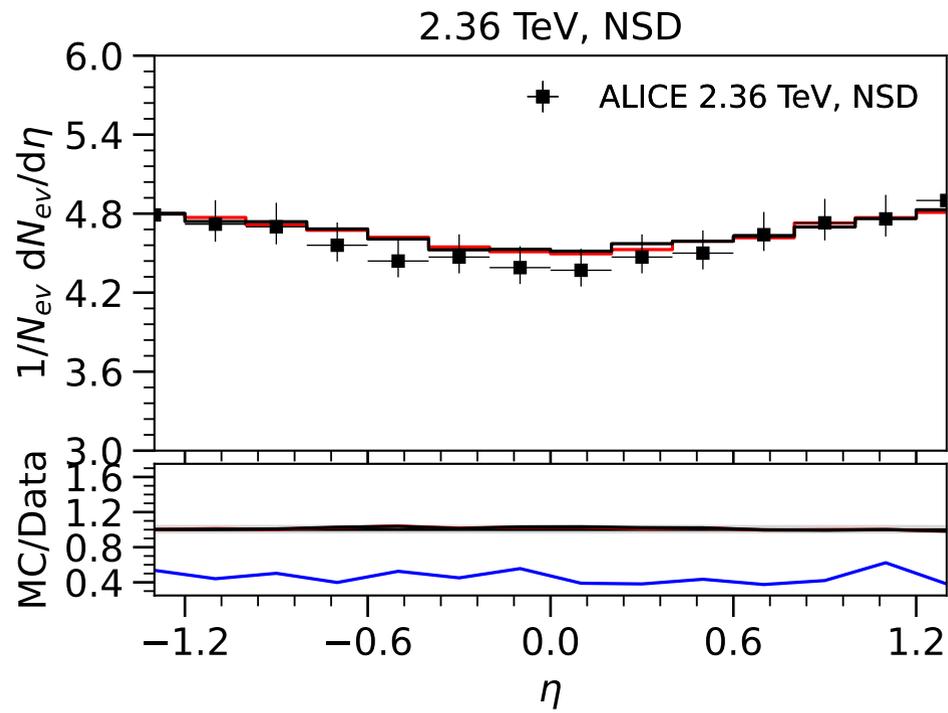
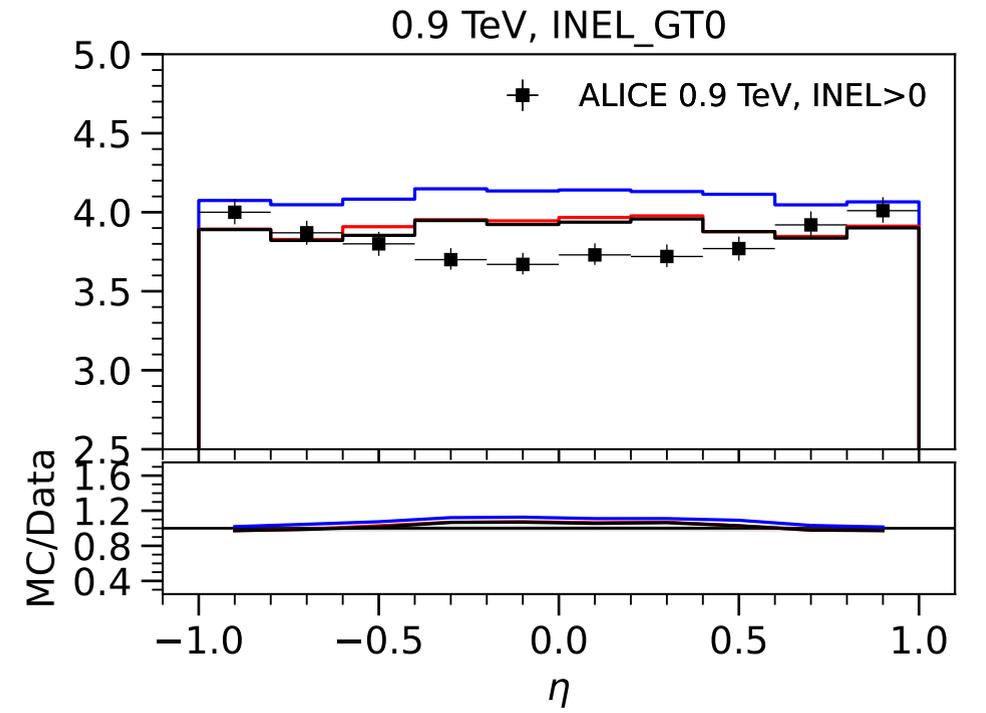
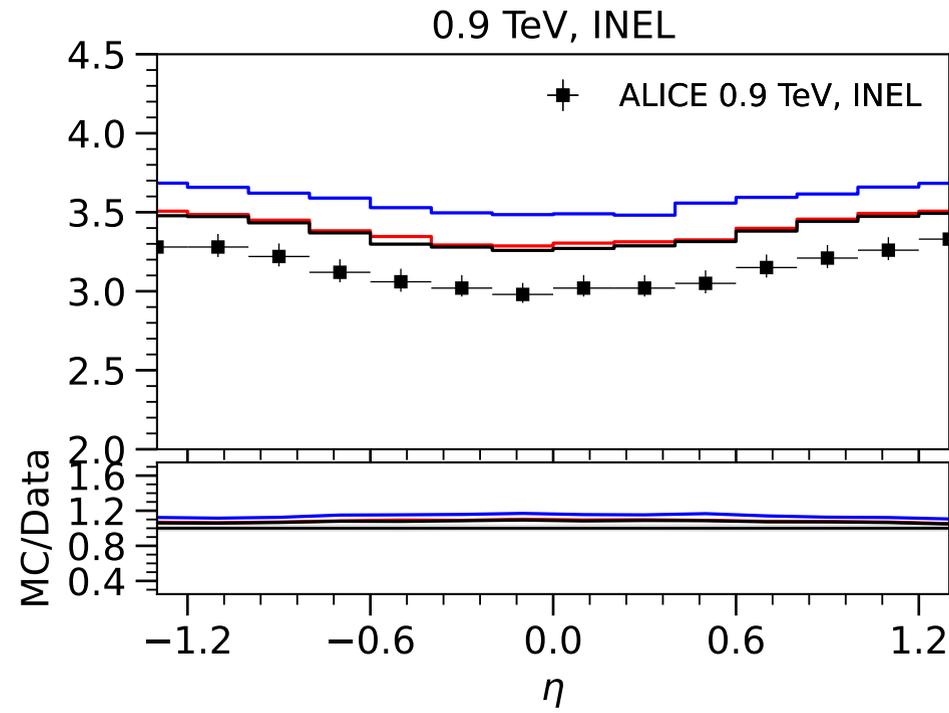
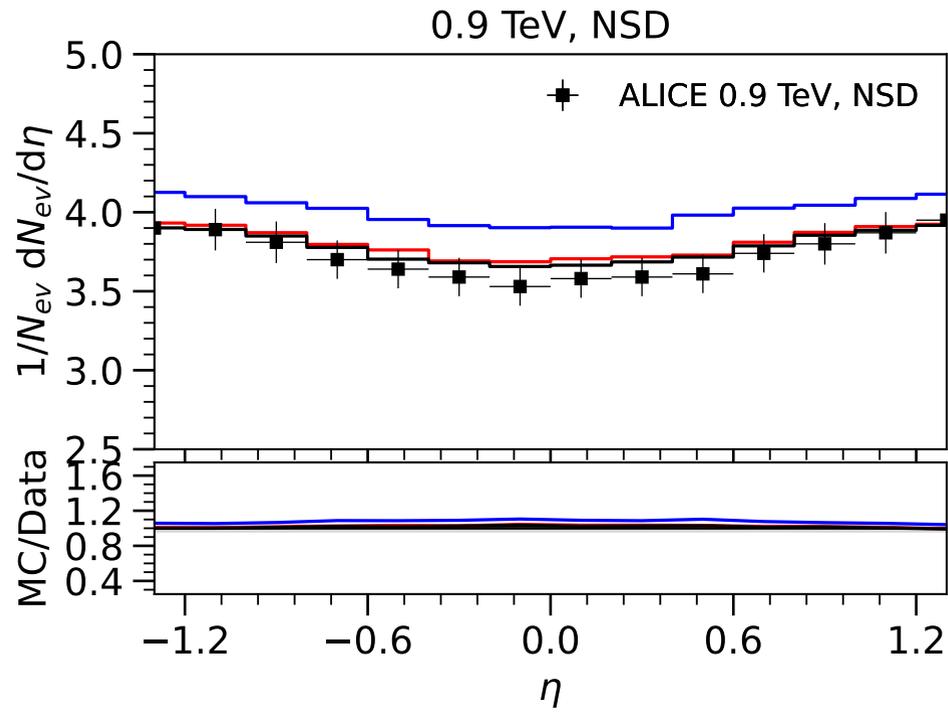


ATLAS 13 TeV - Average Transverse Momentum distributions.

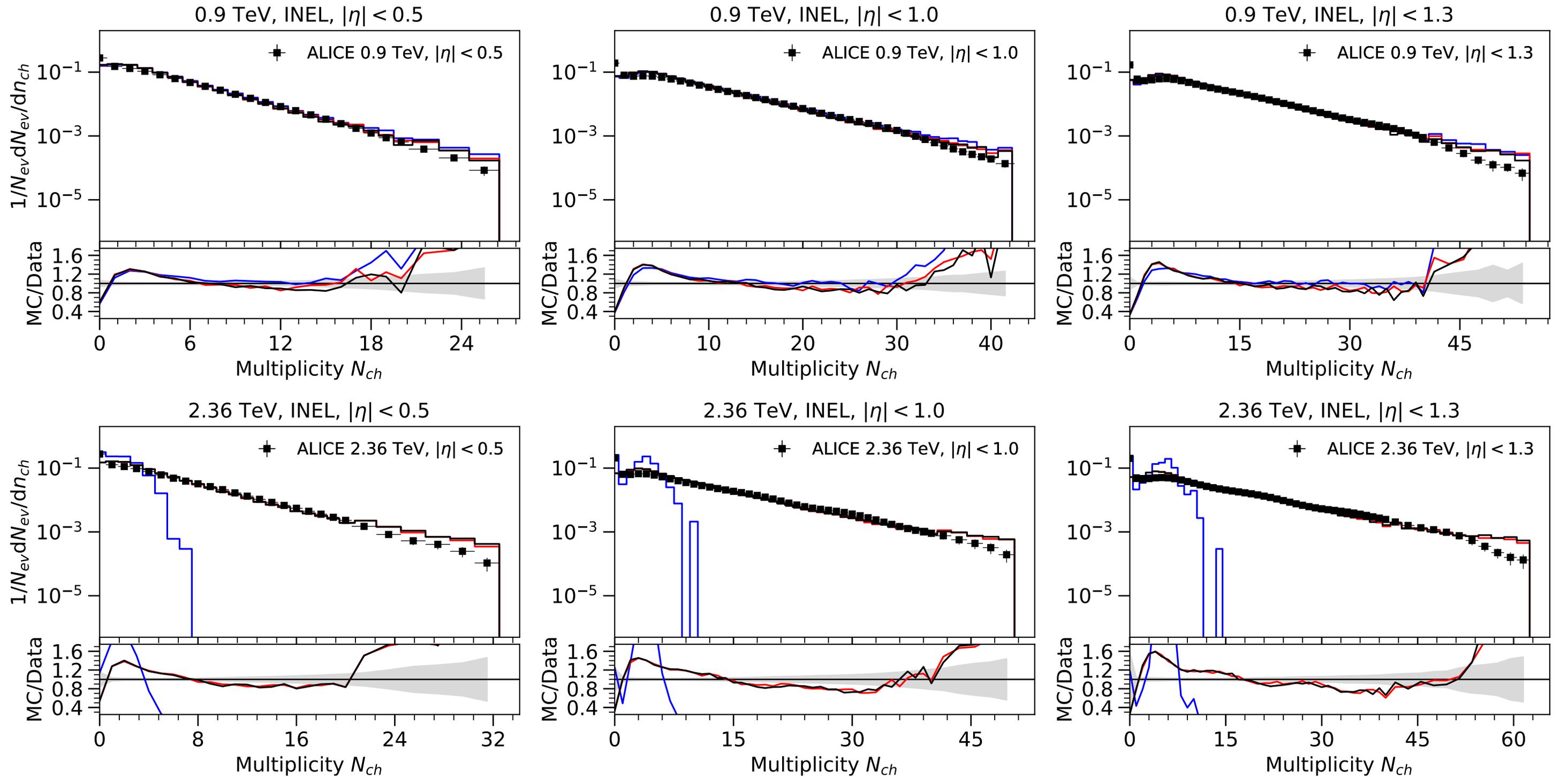


LHC: ALICE Minimum Bias

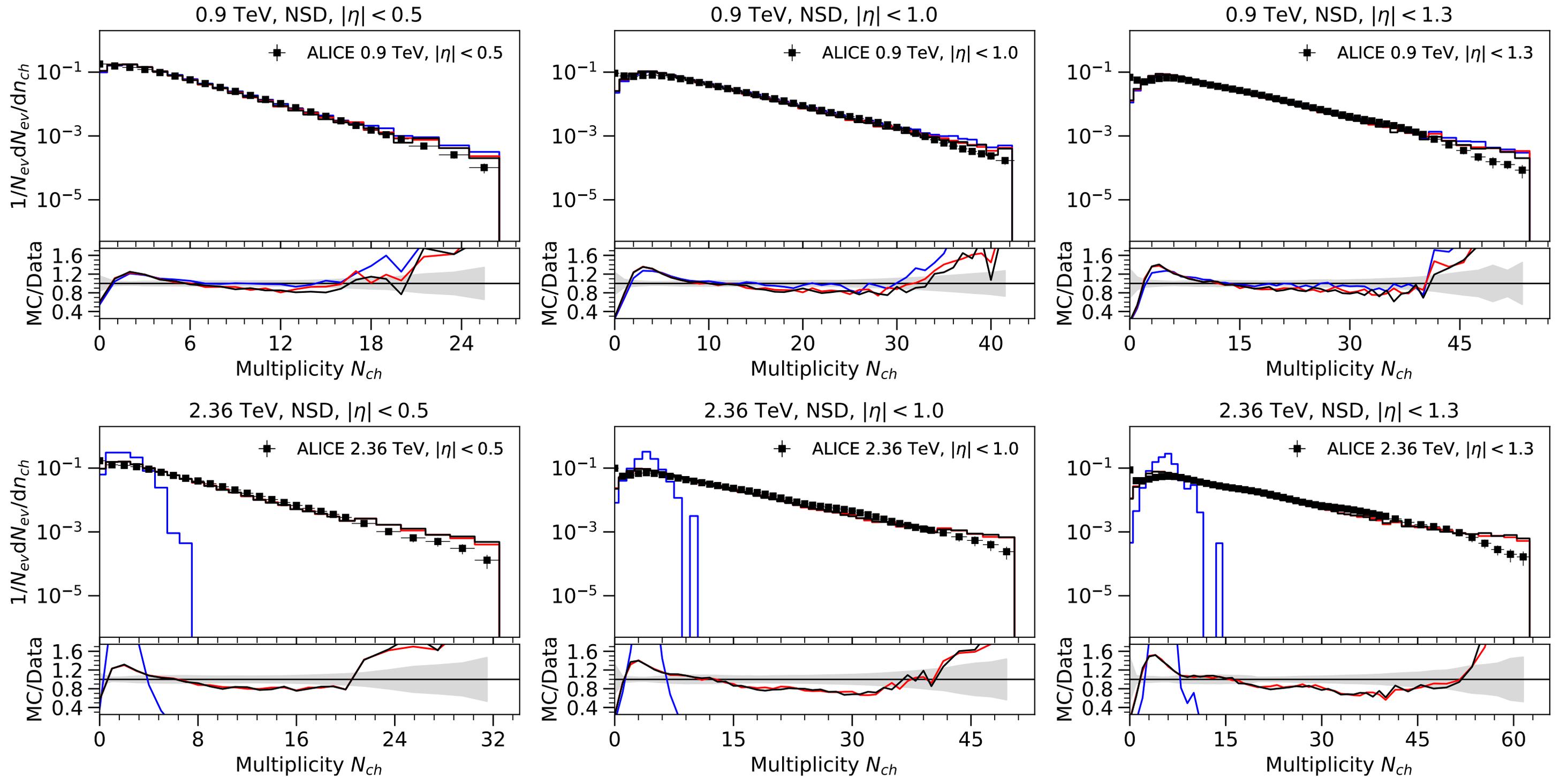
ALICE - NSD charged particle pseudorapidity density.



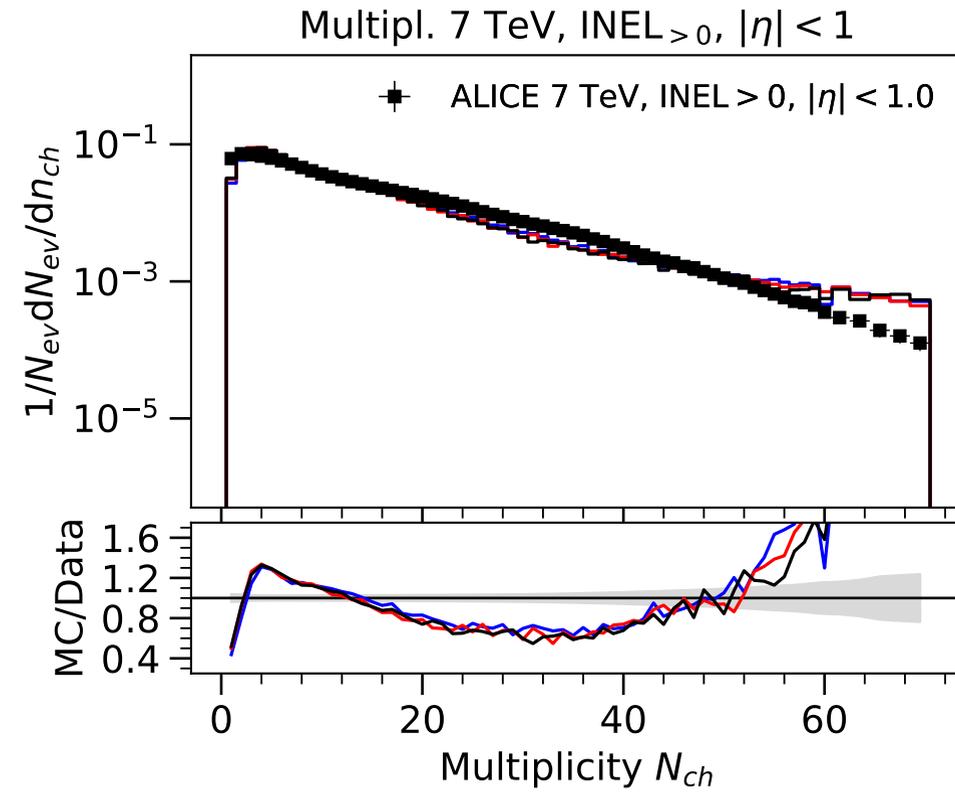
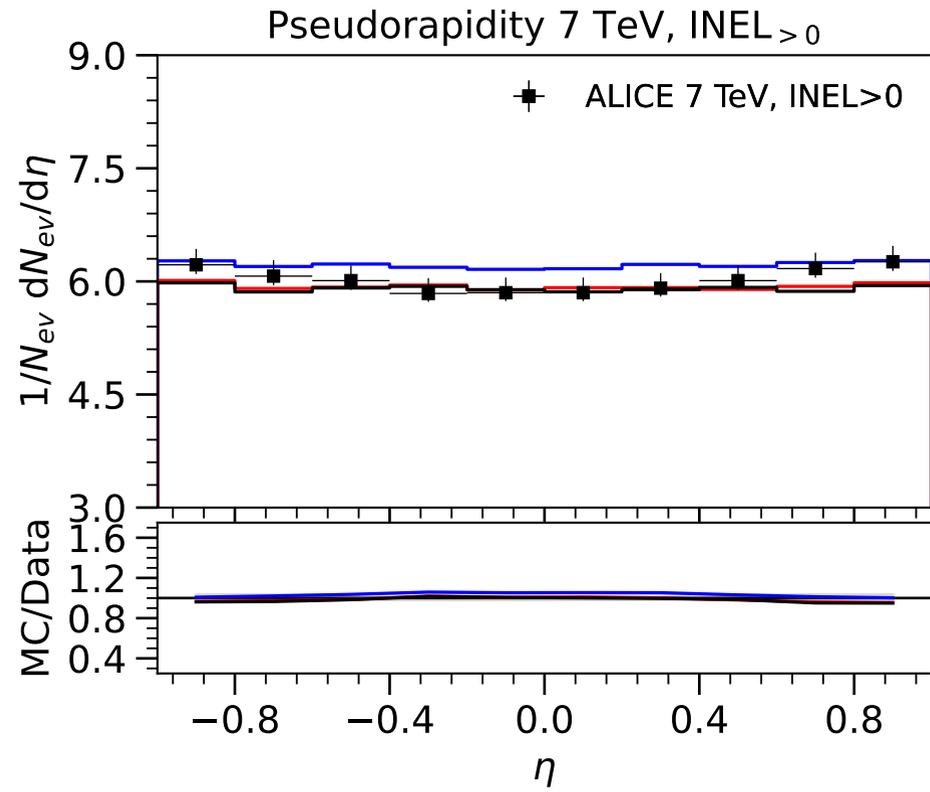
ALICE - INEL charged particle multiplicity.



ALICE - NSD charged particle multiplicity.

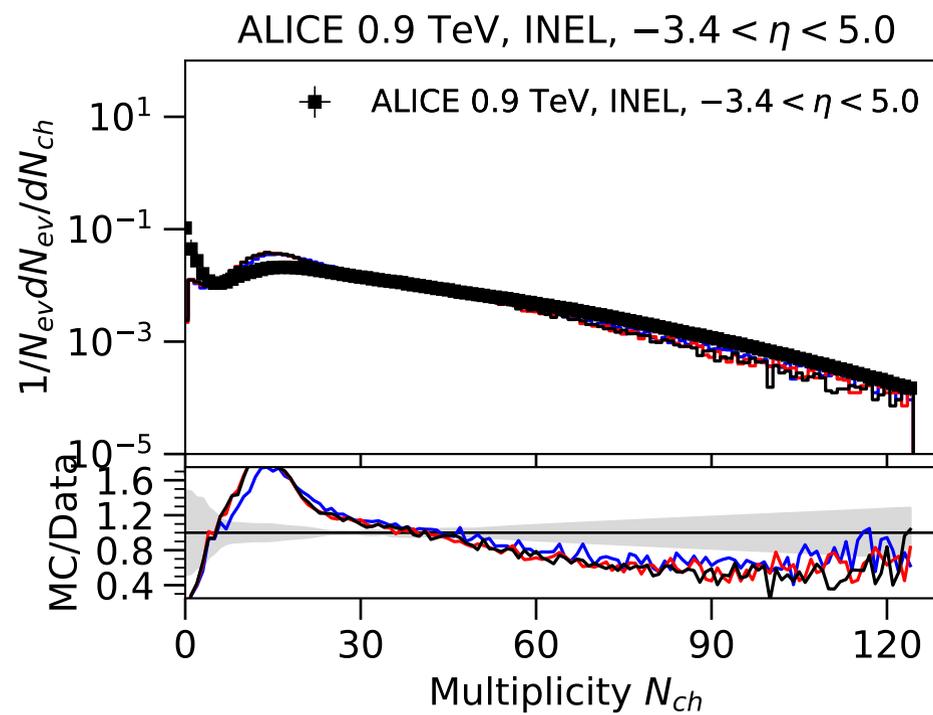
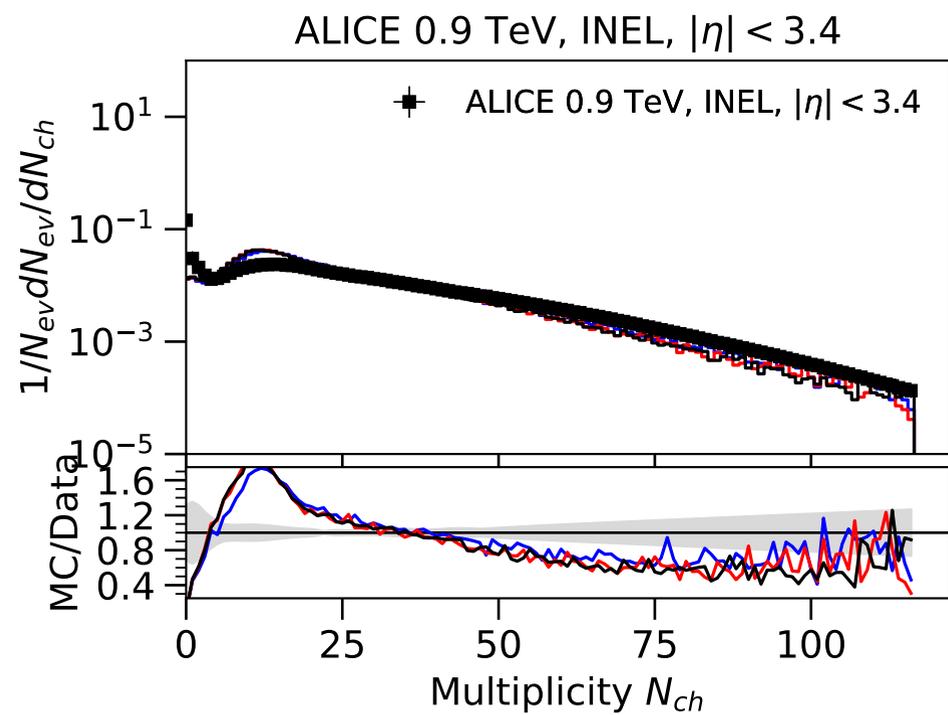
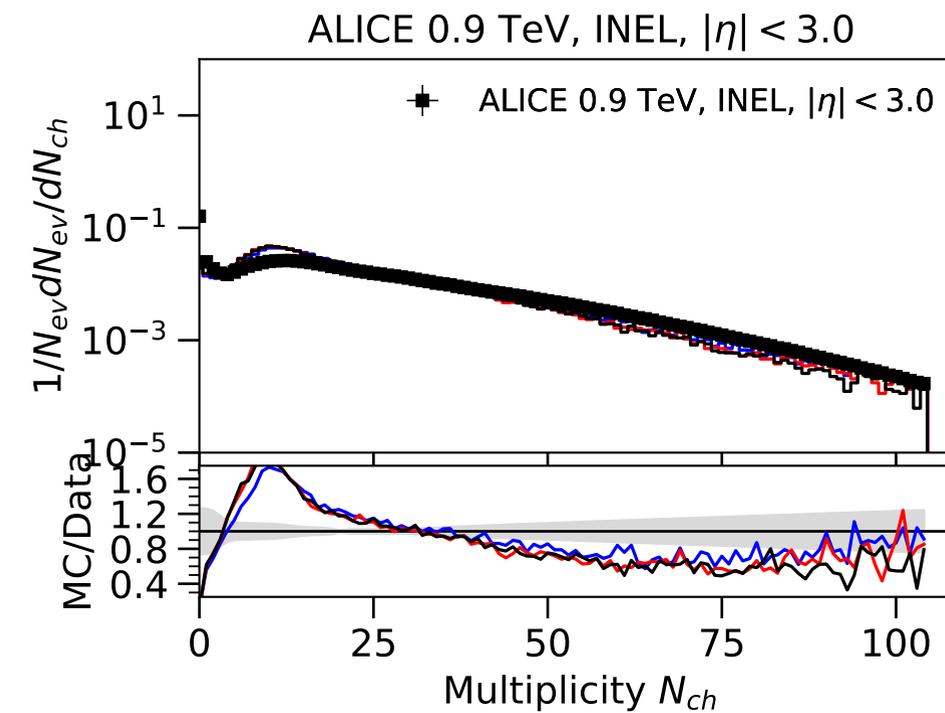
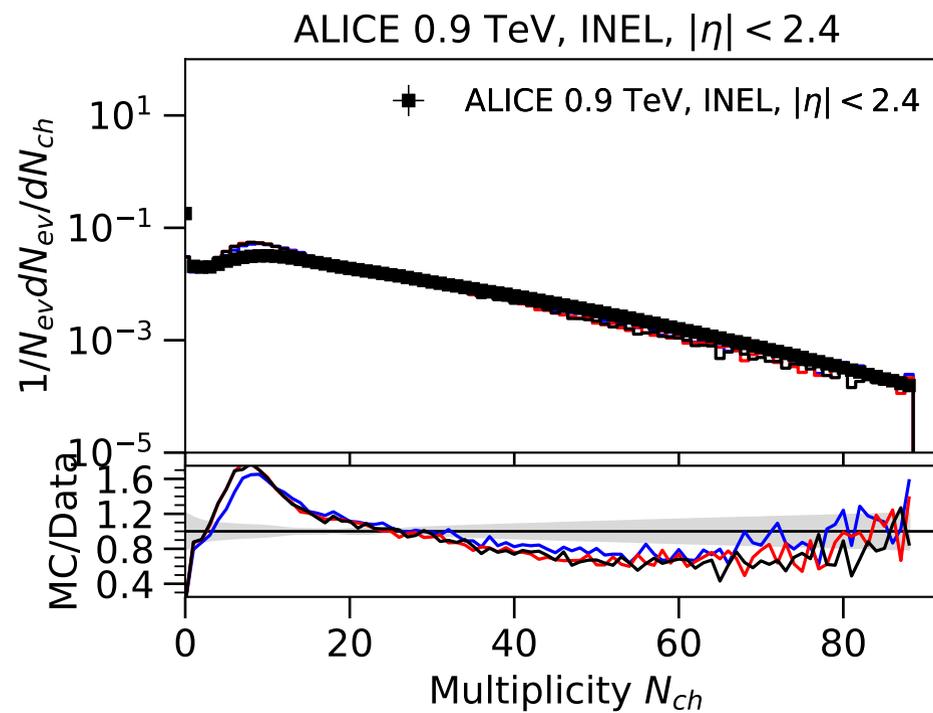
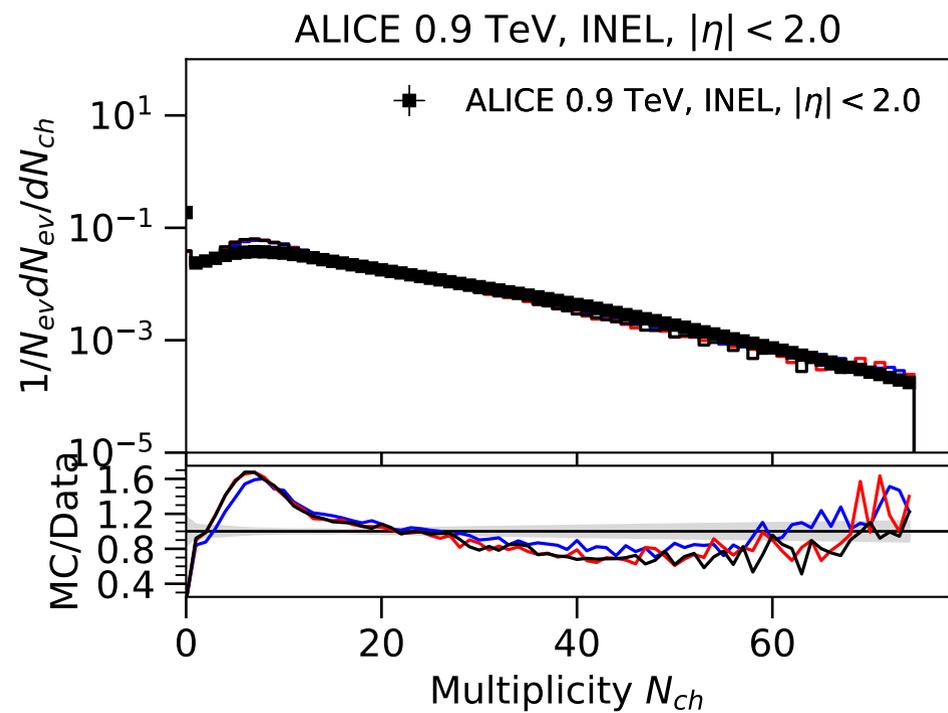


ALICE - 7 TeV.

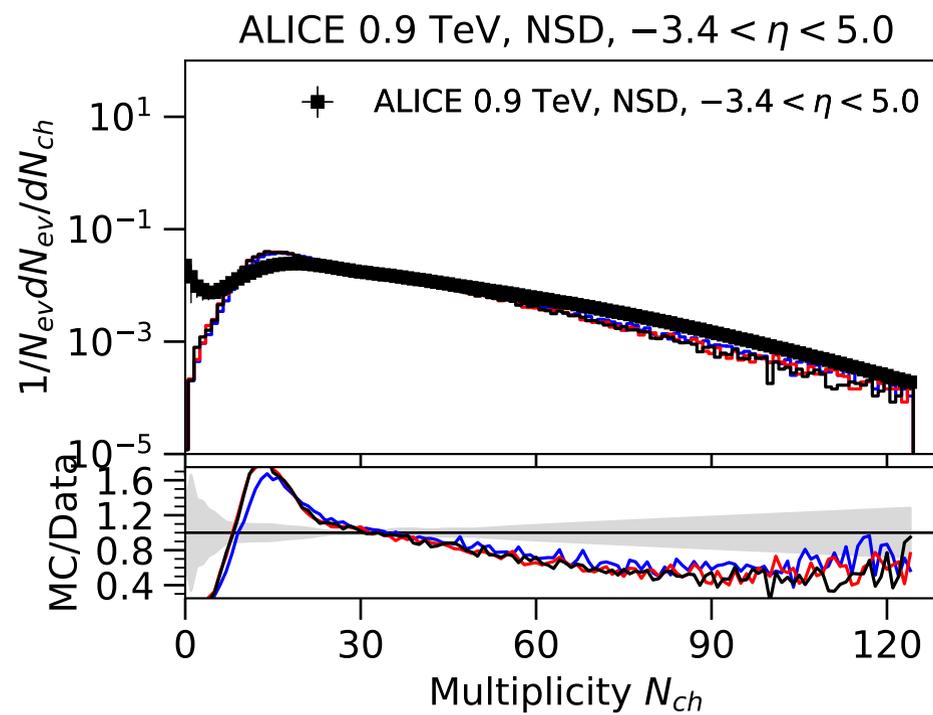
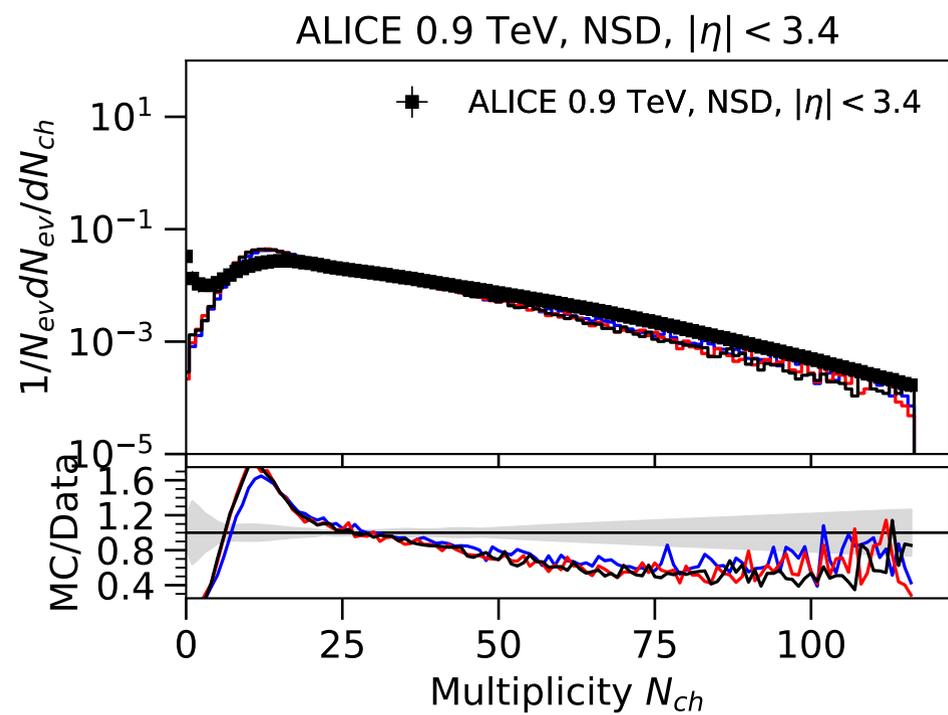
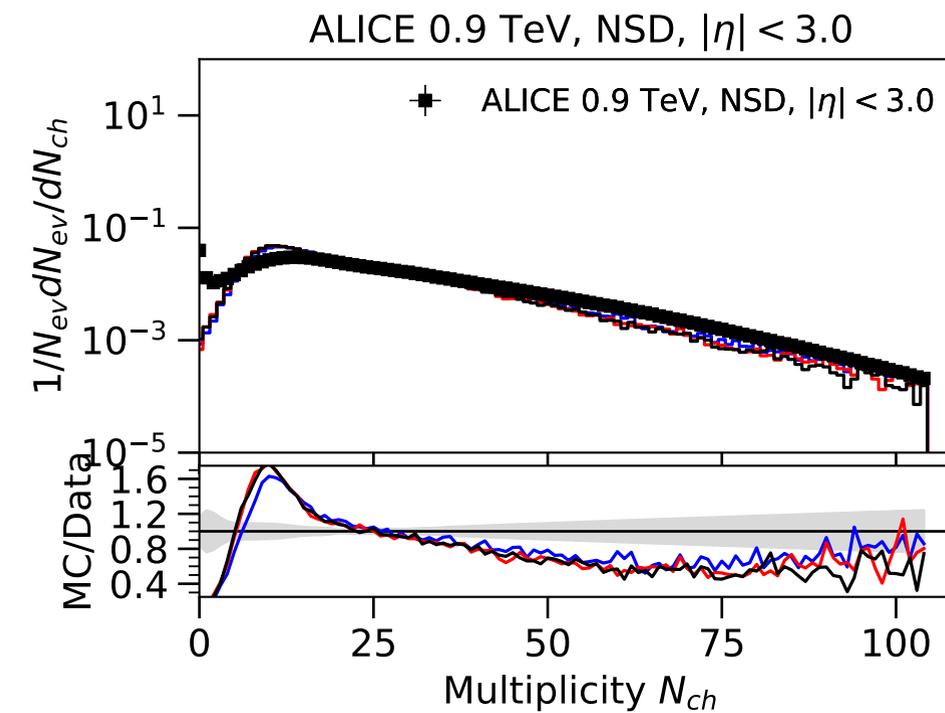
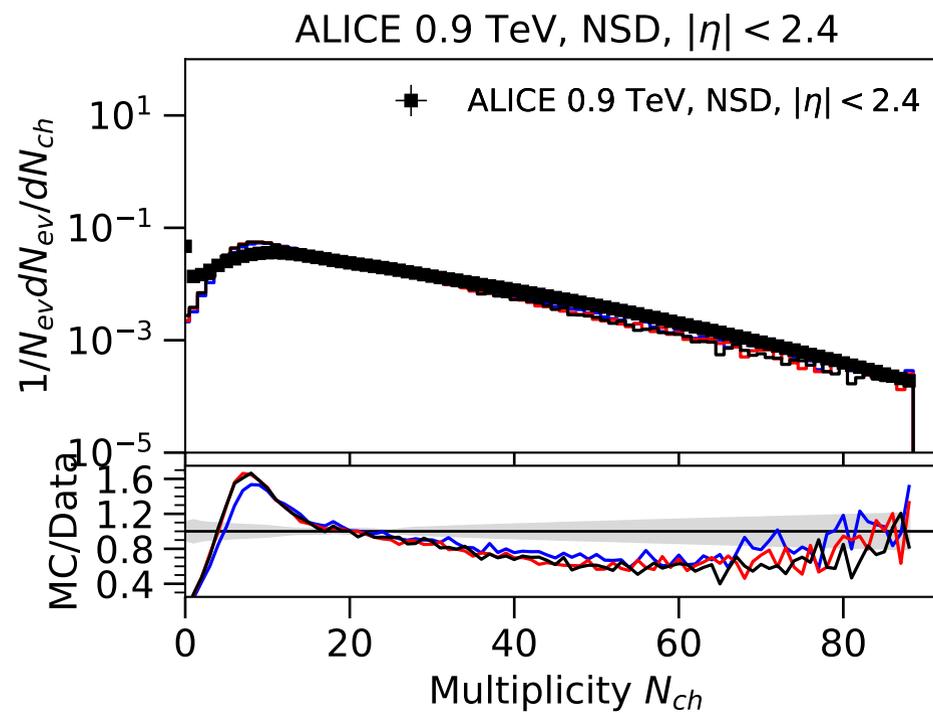
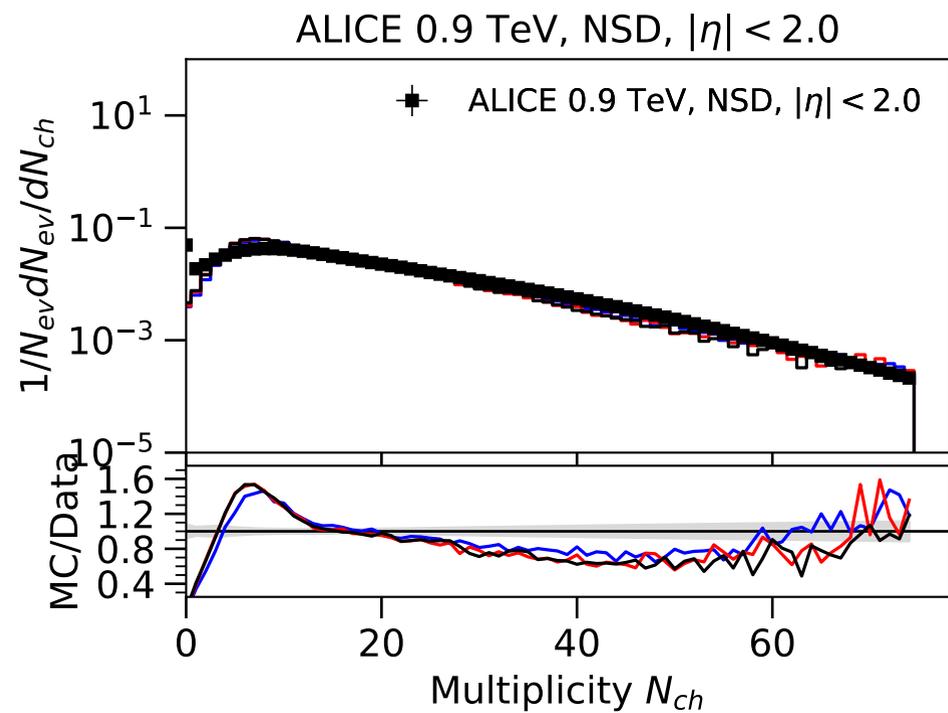


LHC: ALICE Minimum Bias 2017

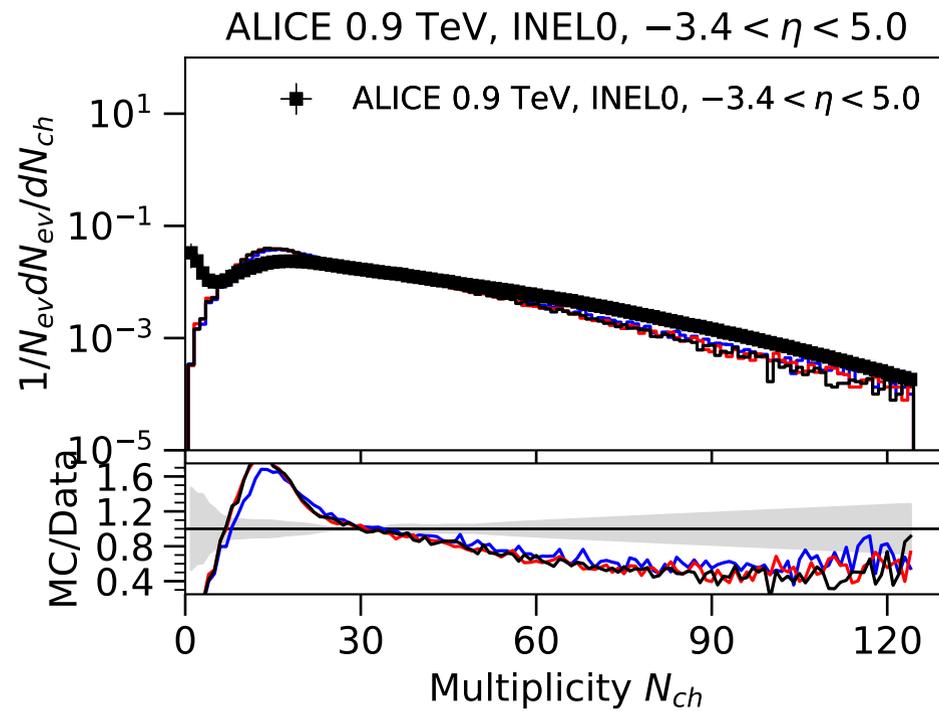
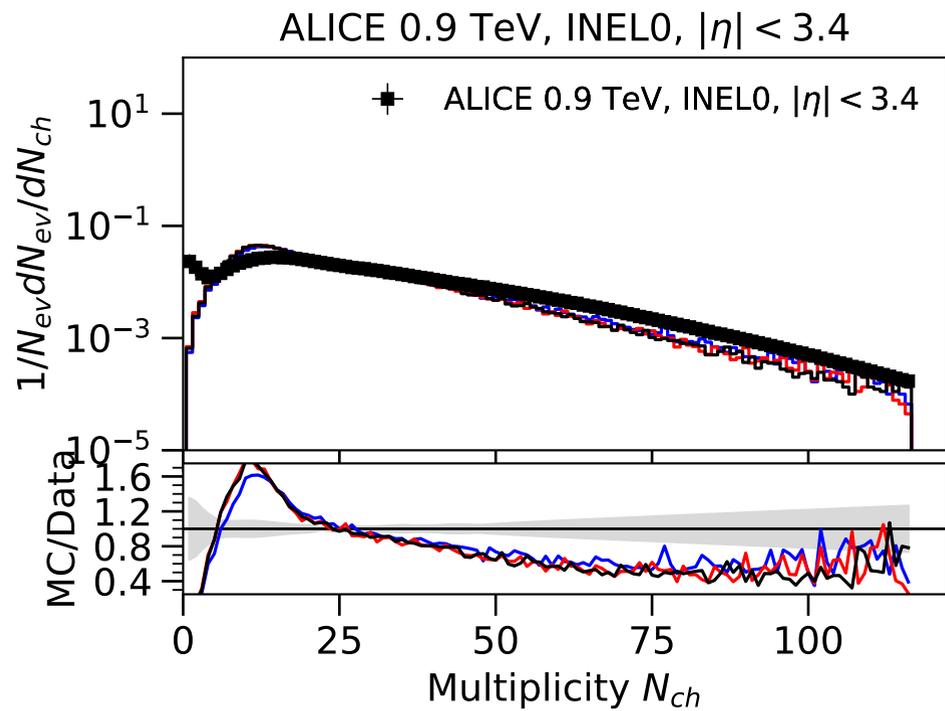
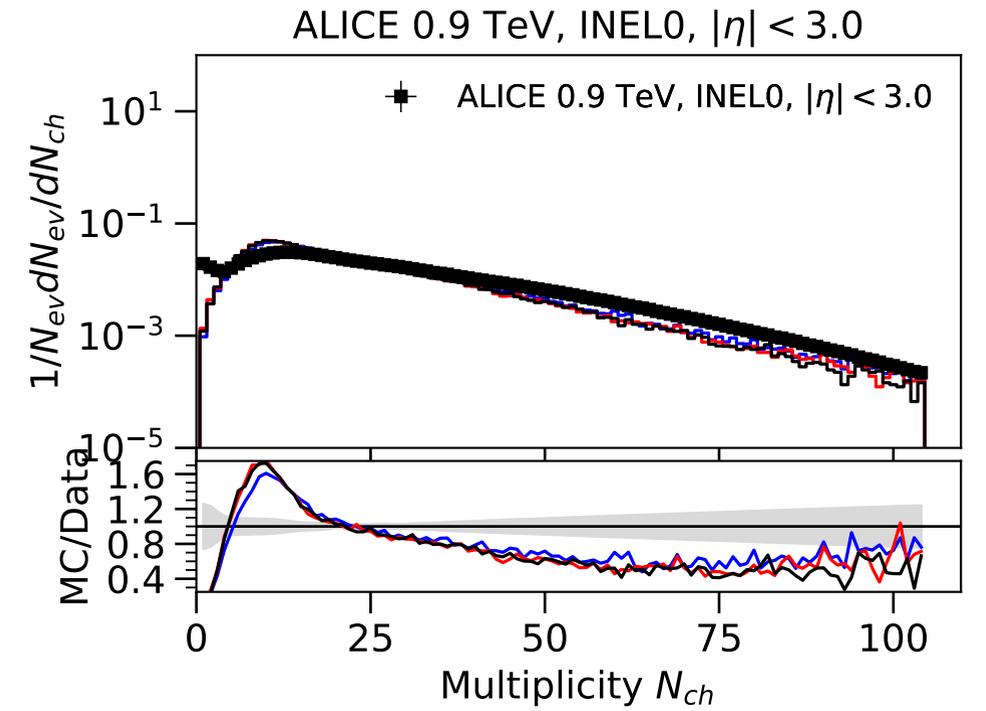
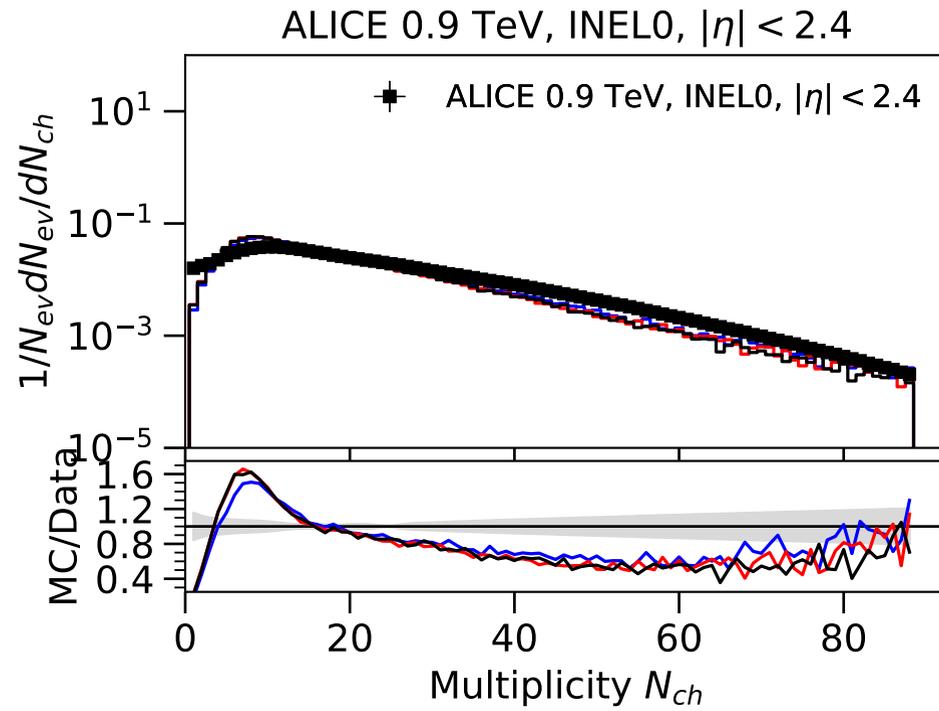
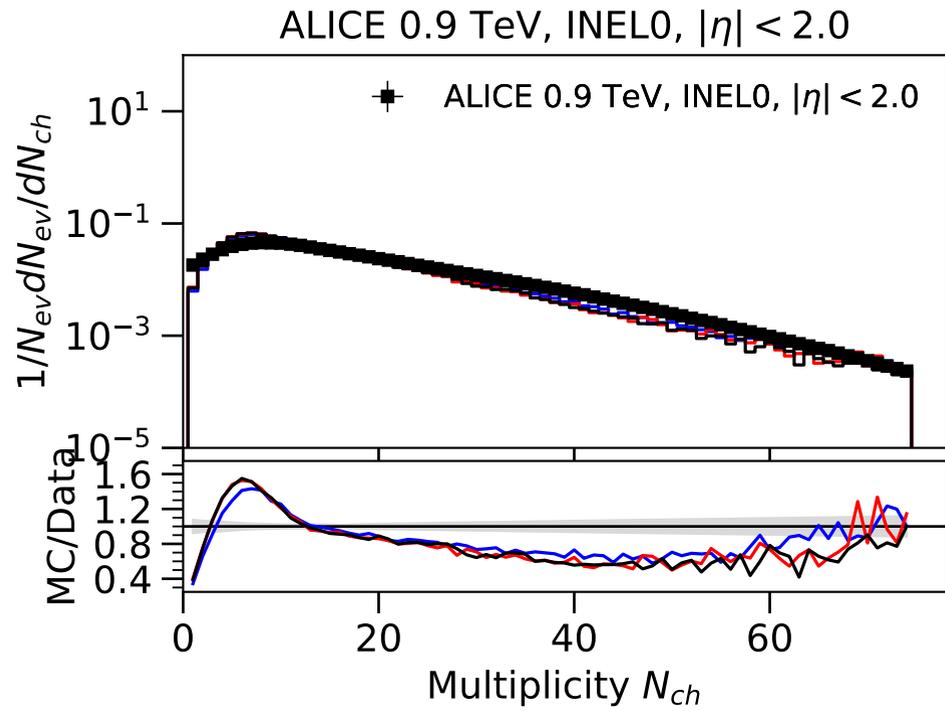
ALICE - 0.9 TeV INEL Multiplicity distribution.



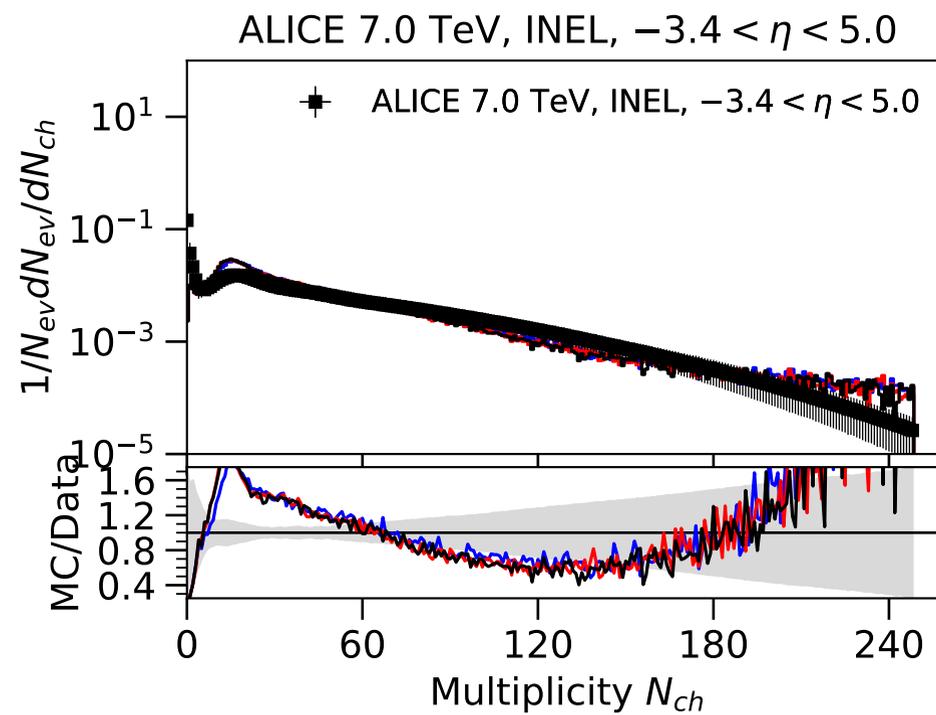
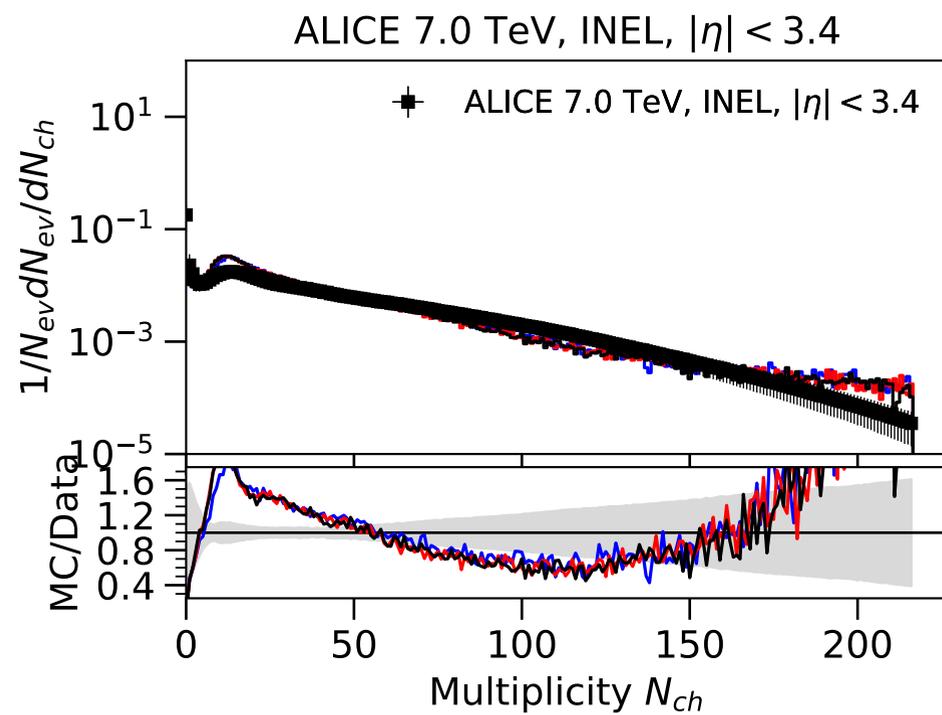
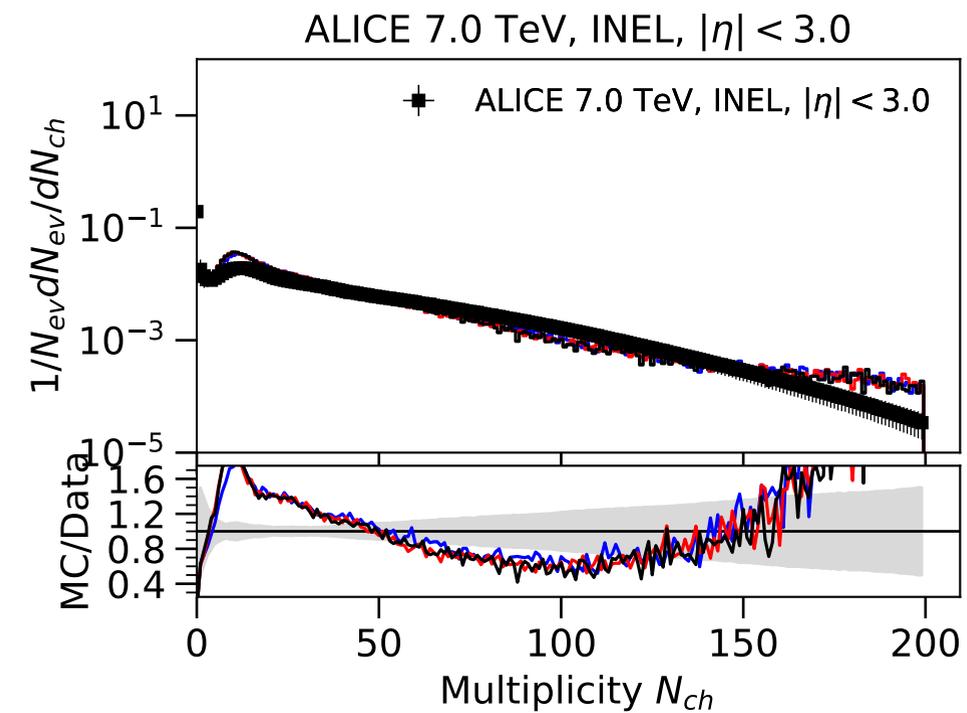
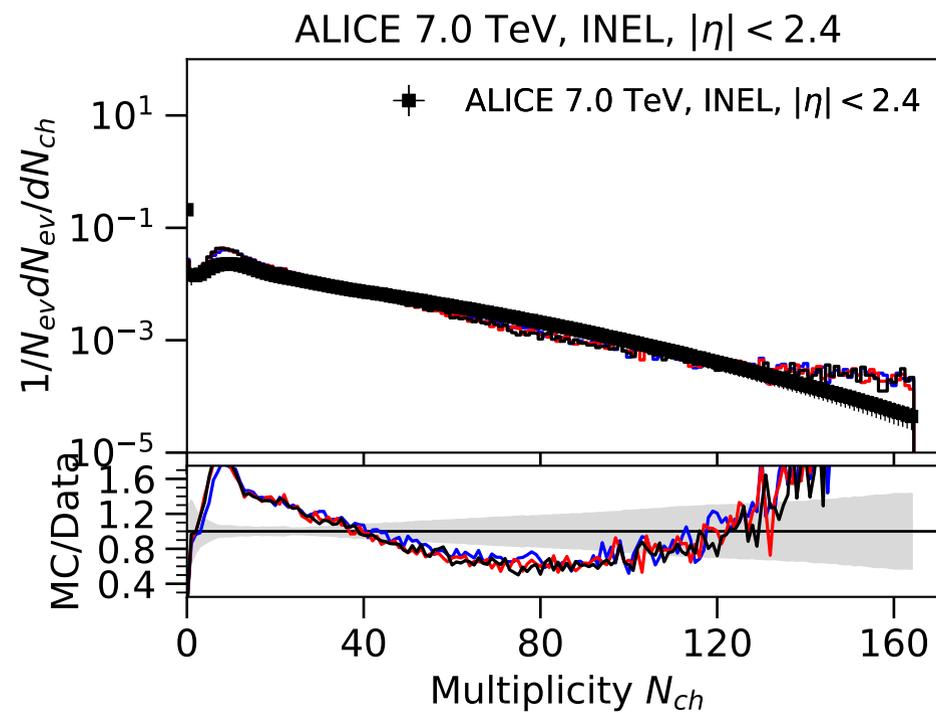
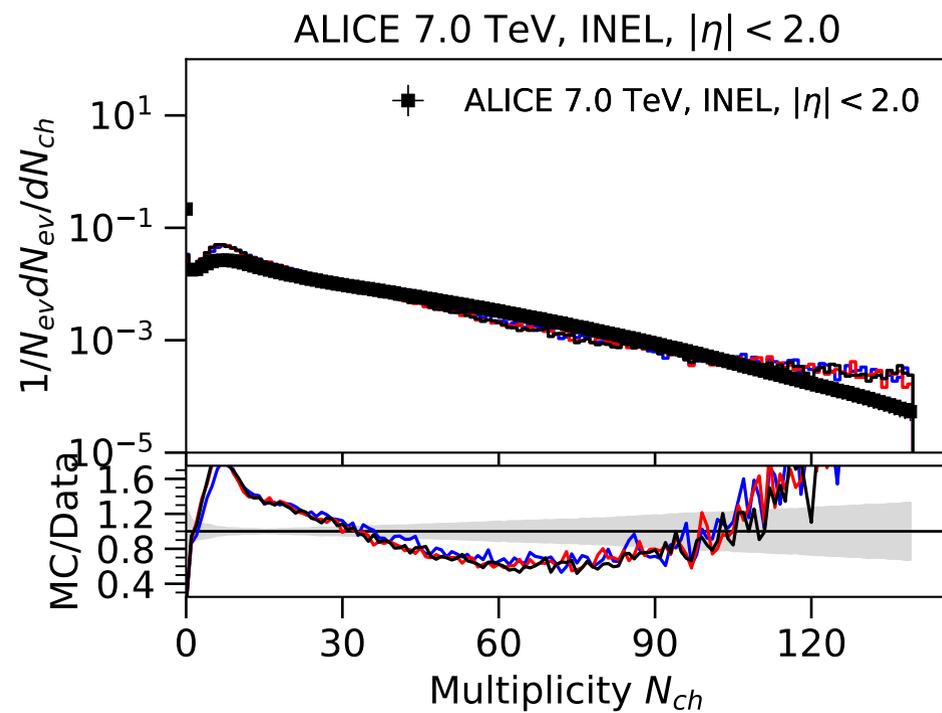
ALICE - 0.9TeV NSD Multiplicity distribution.



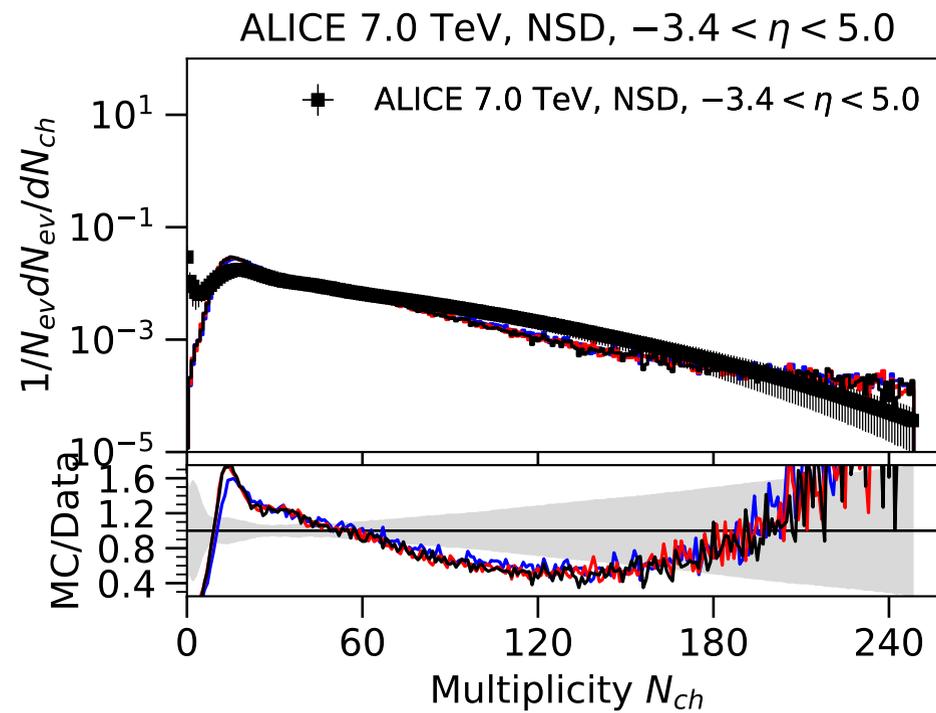
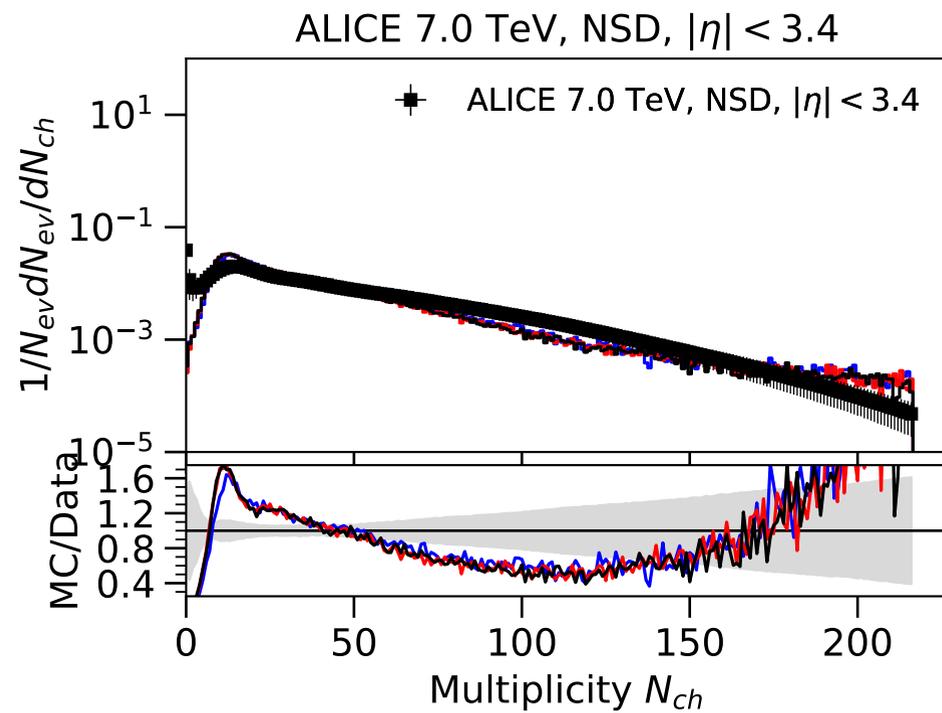
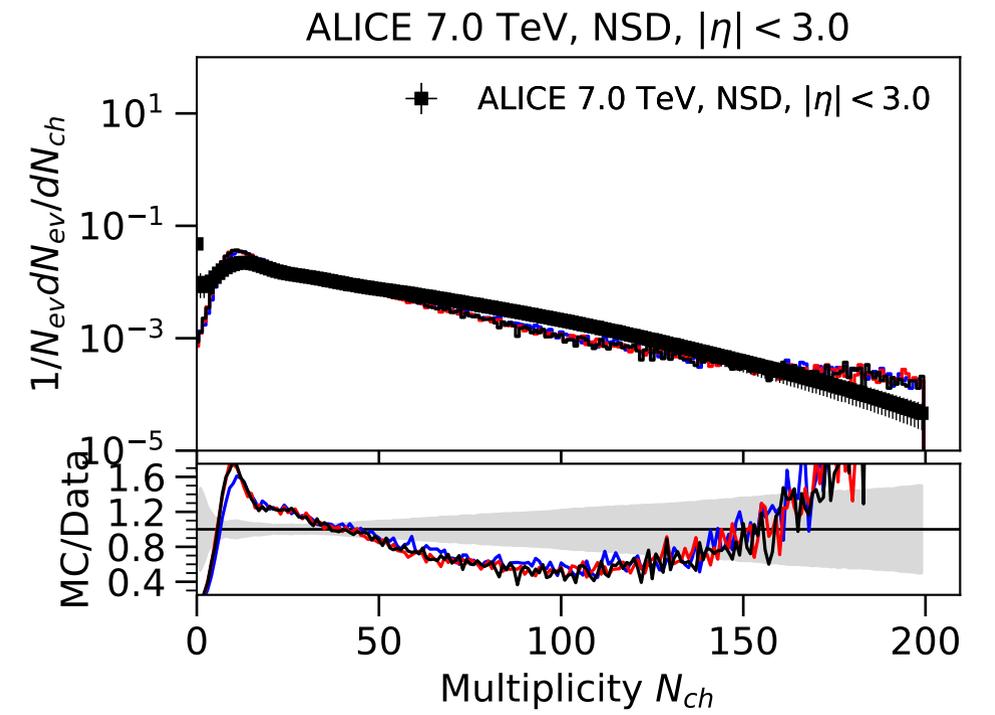
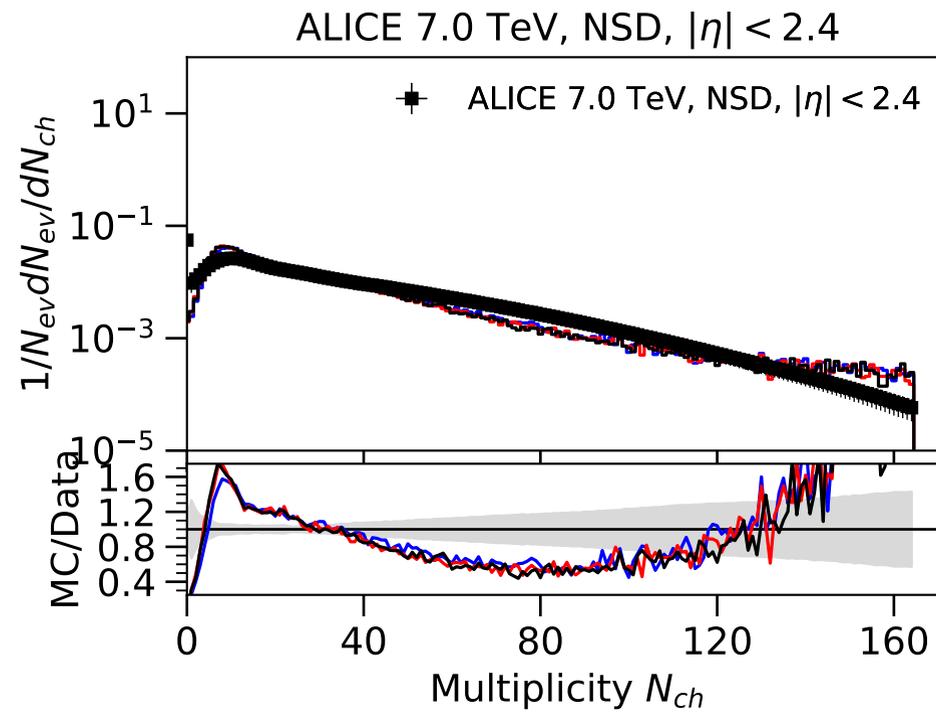
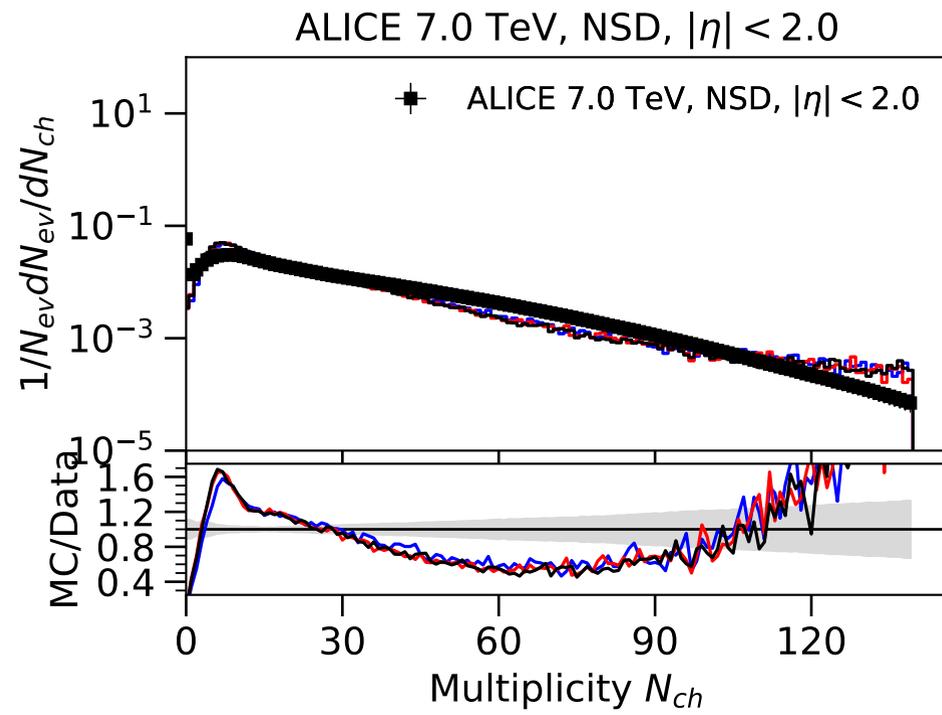
ALICE - 0.9TeV INEL > 0 Multiplicity distribution.



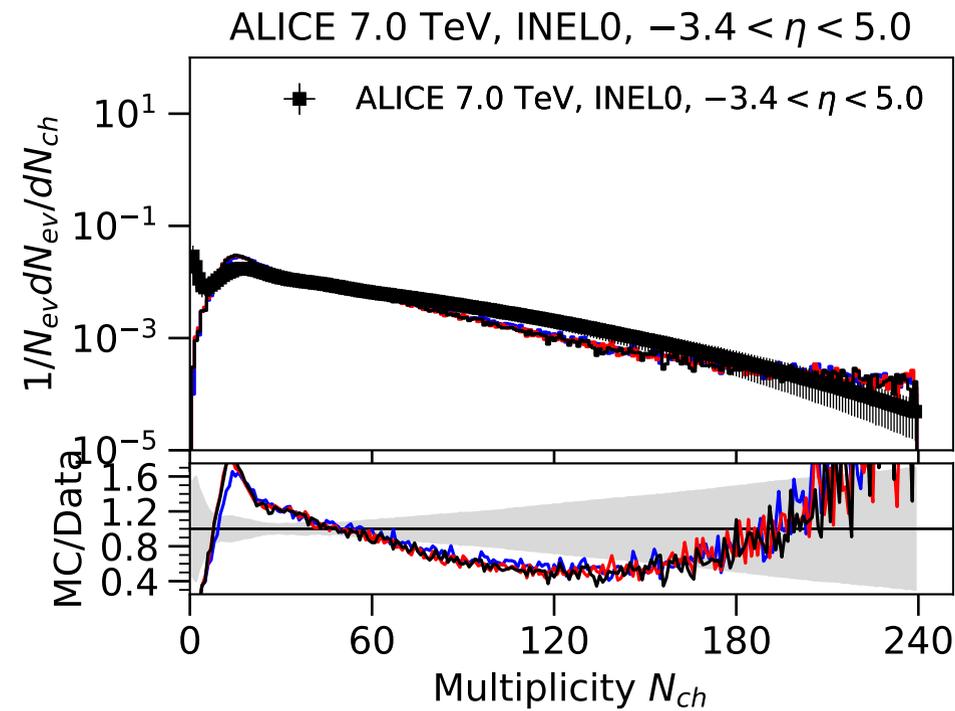
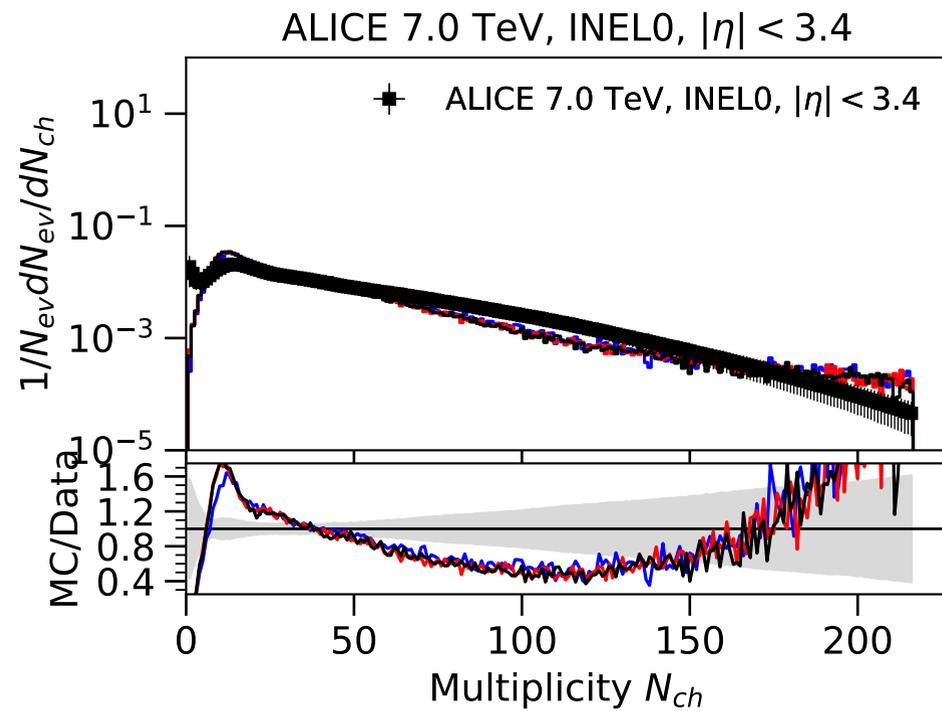
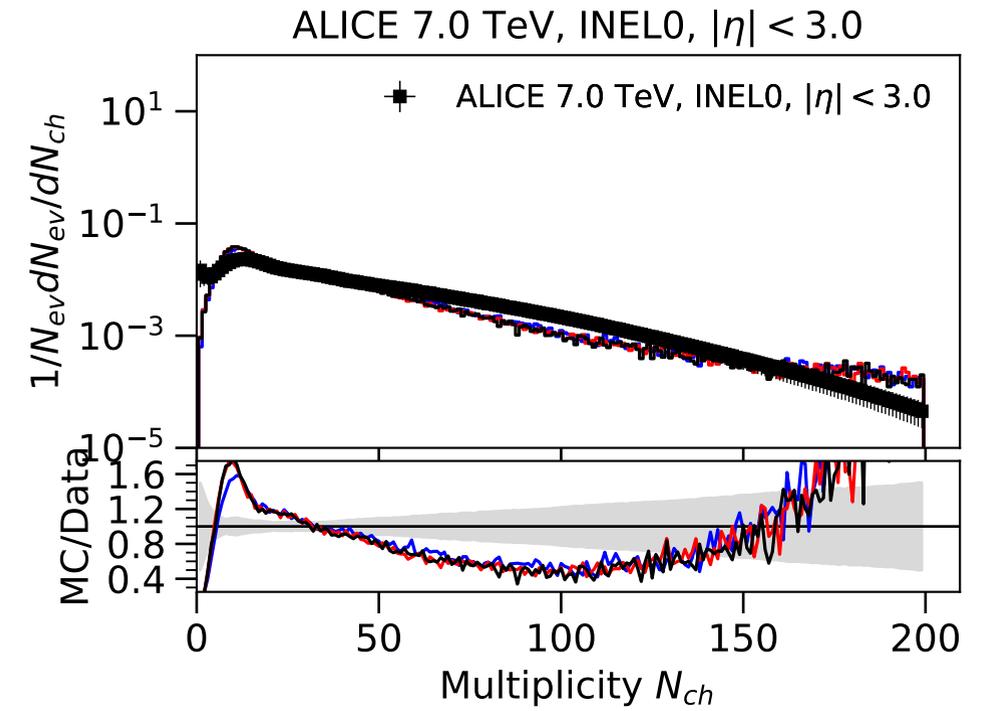
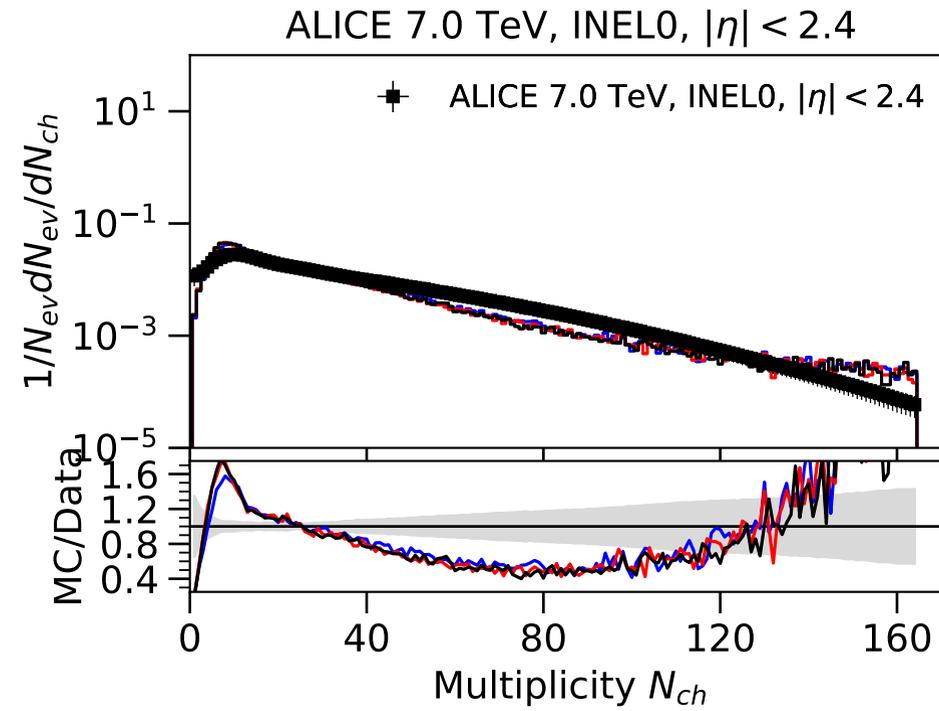
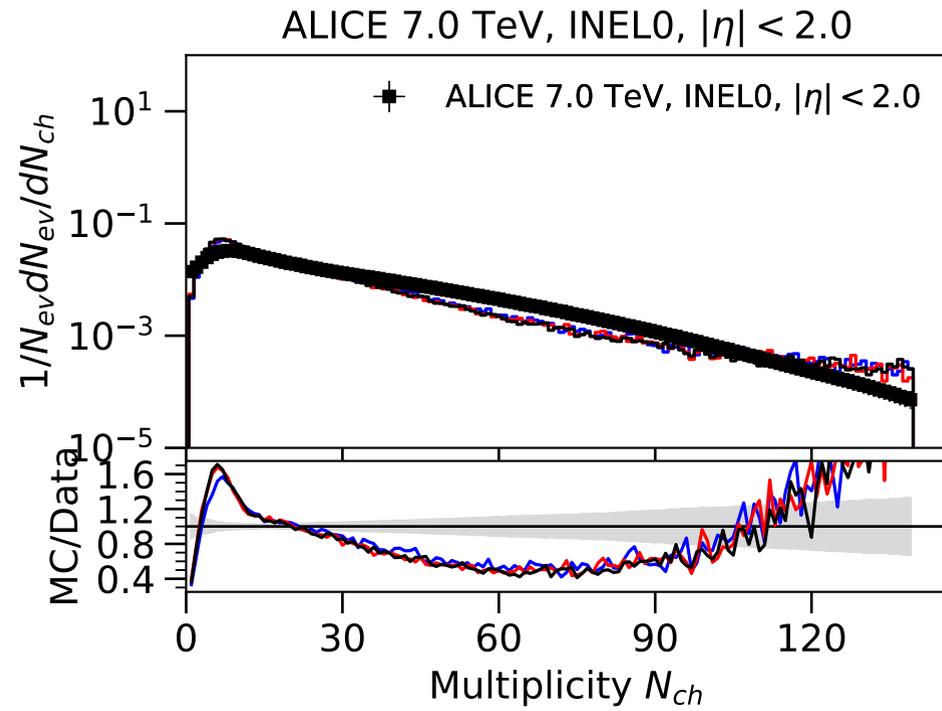
ALICE - 7TeV INEL Multiplicity distribution.



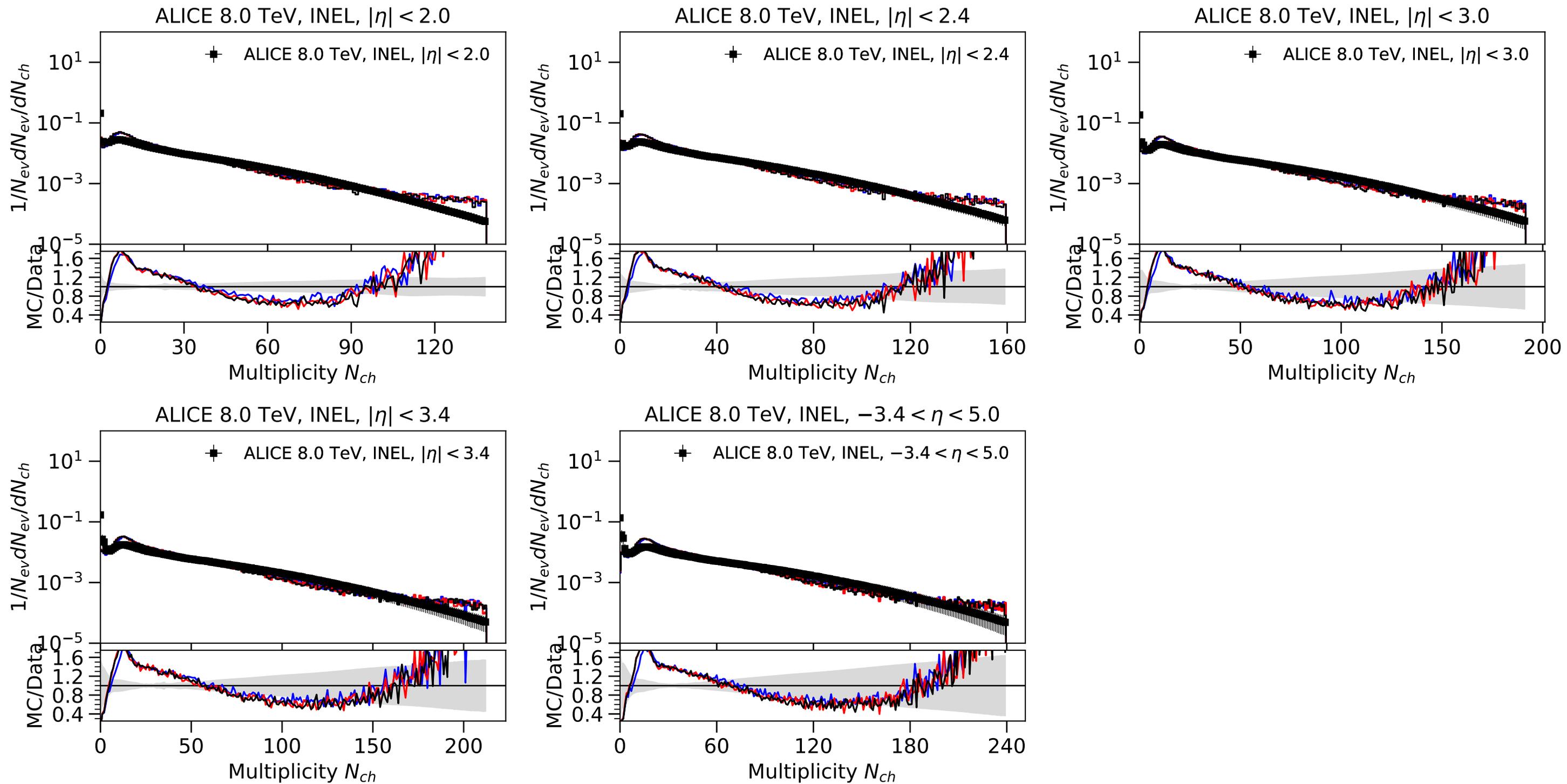
ALICE - 7TeV NSD Multiplicity distribution.



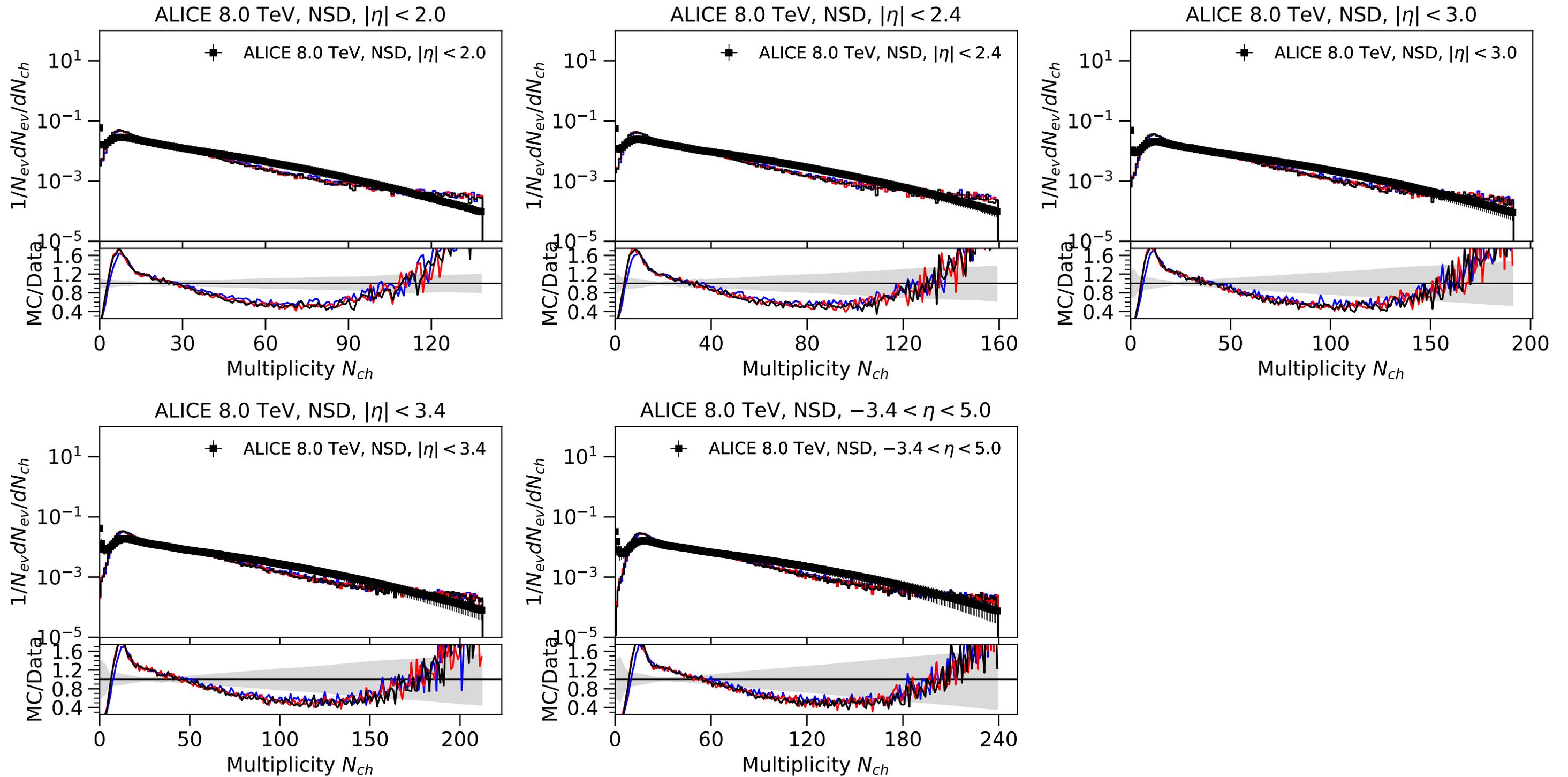
ALICE - 7TeV INEL > 0 Multiplicity distribution.



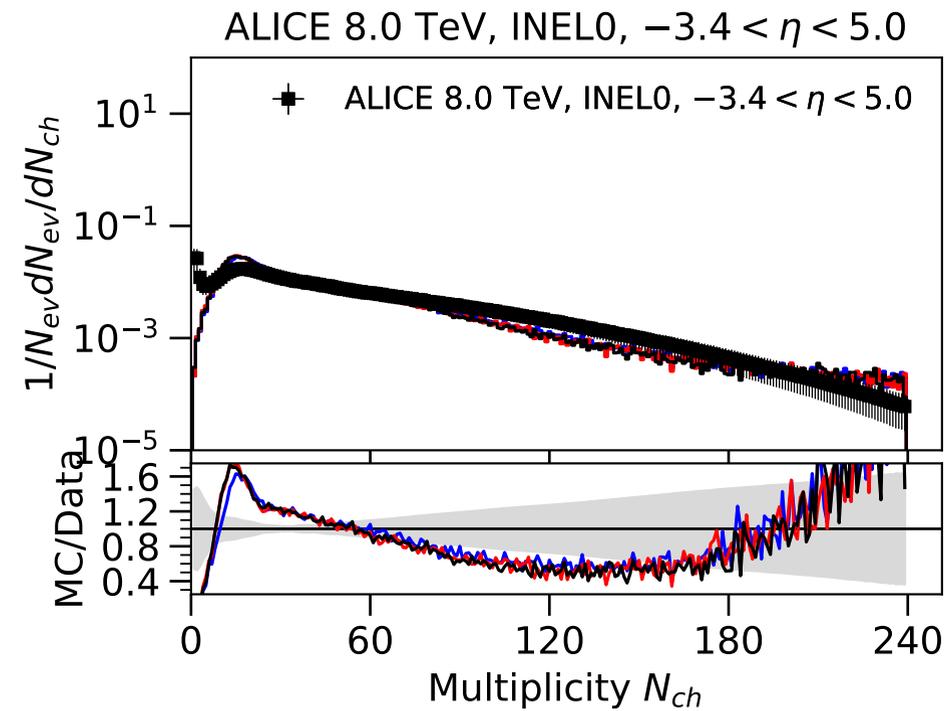
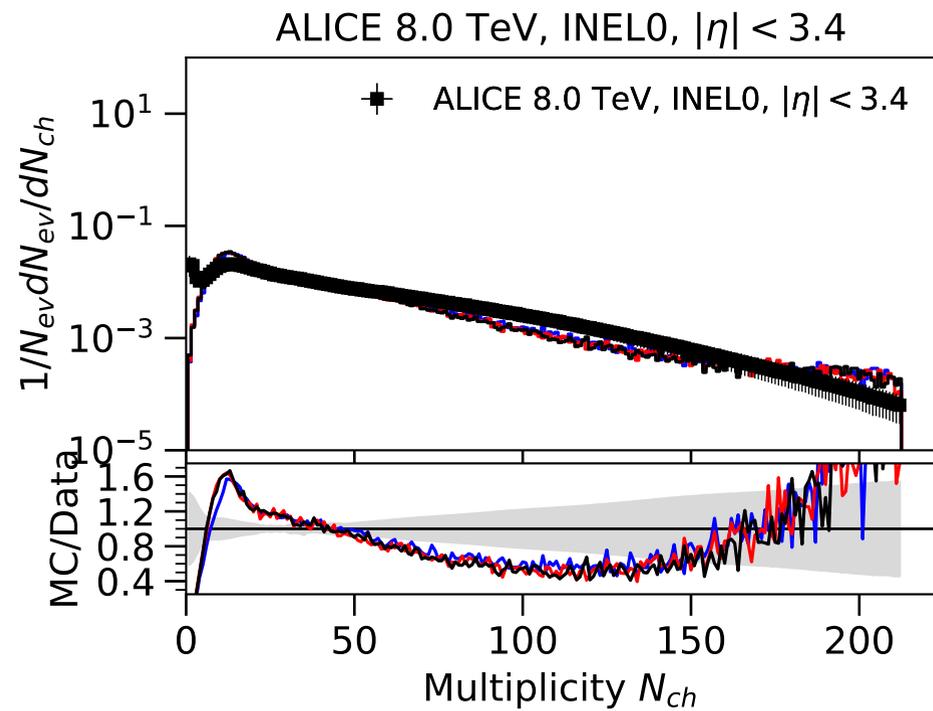
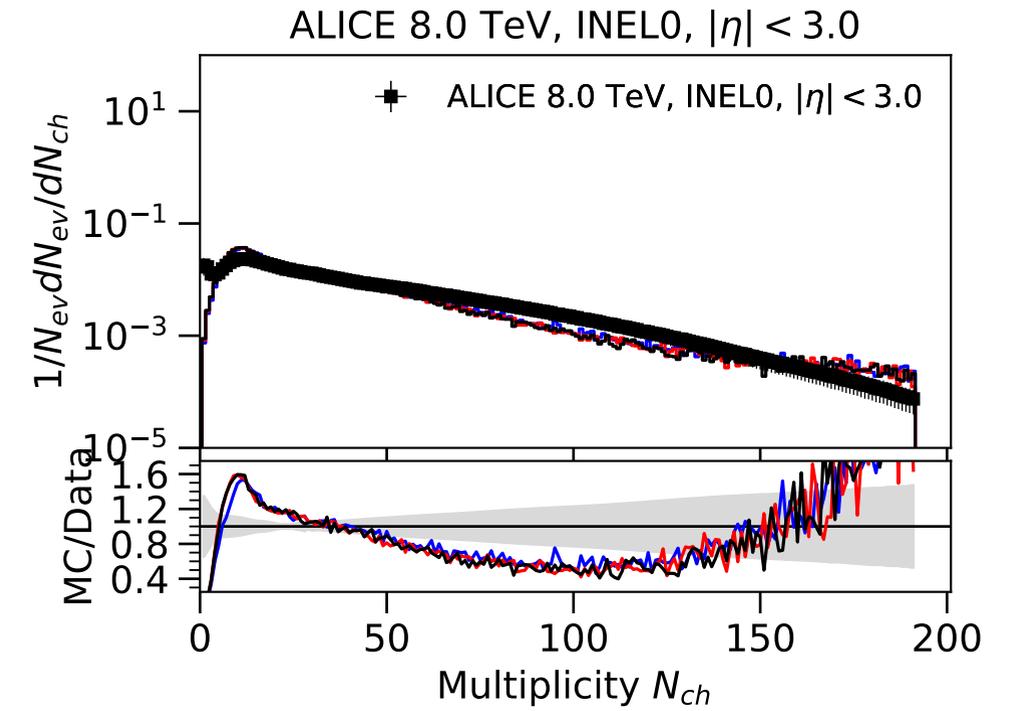
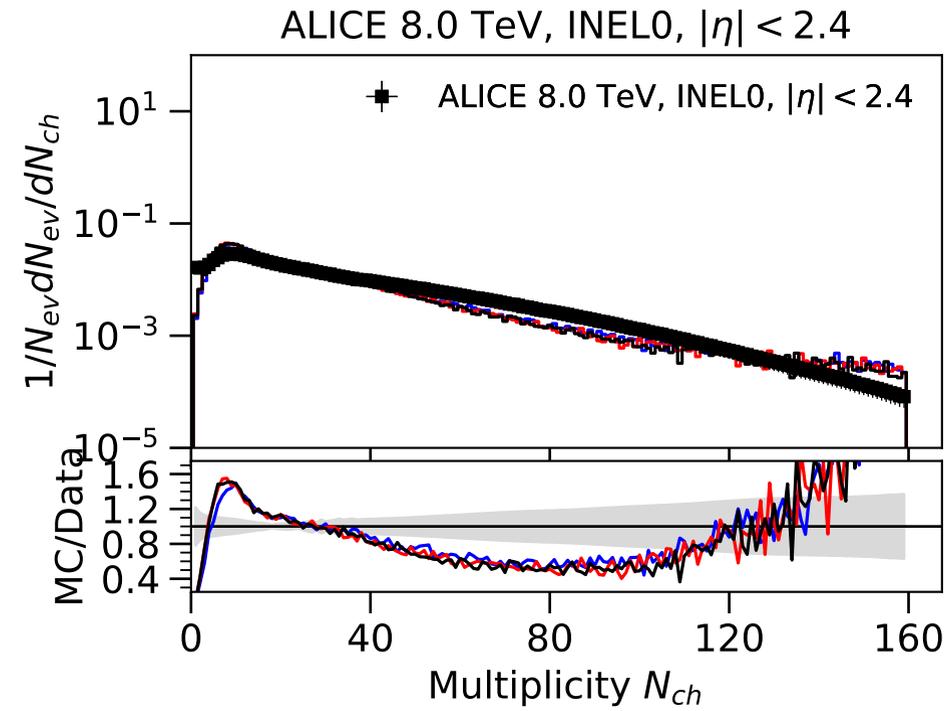
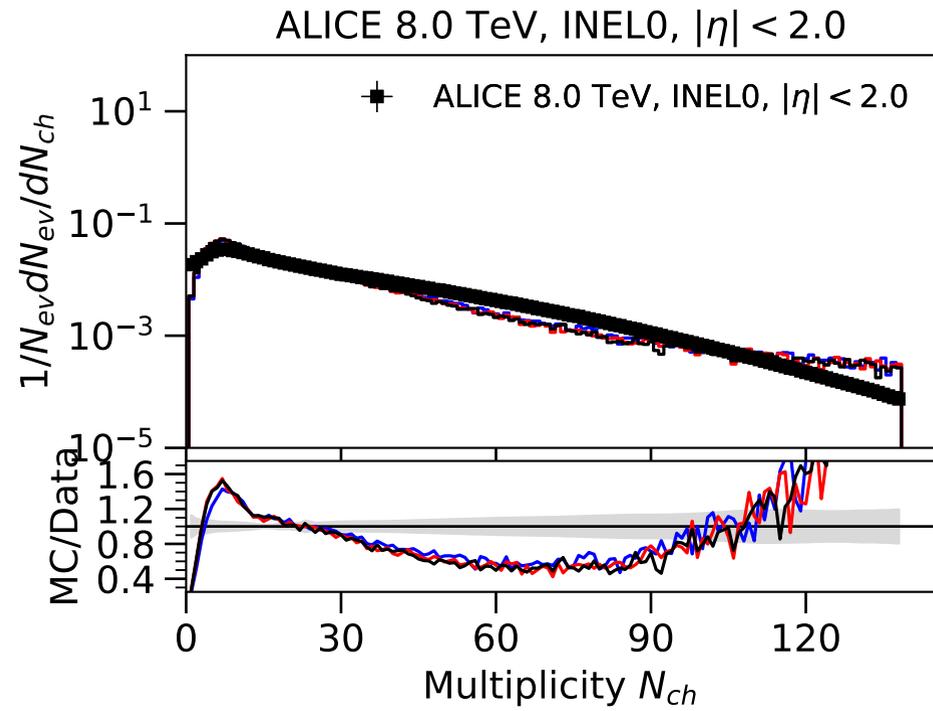
ALICE - 8TeV INEL Multiplicity distribution.



ALICE - 8TeV NSD Multiplicity distribution.

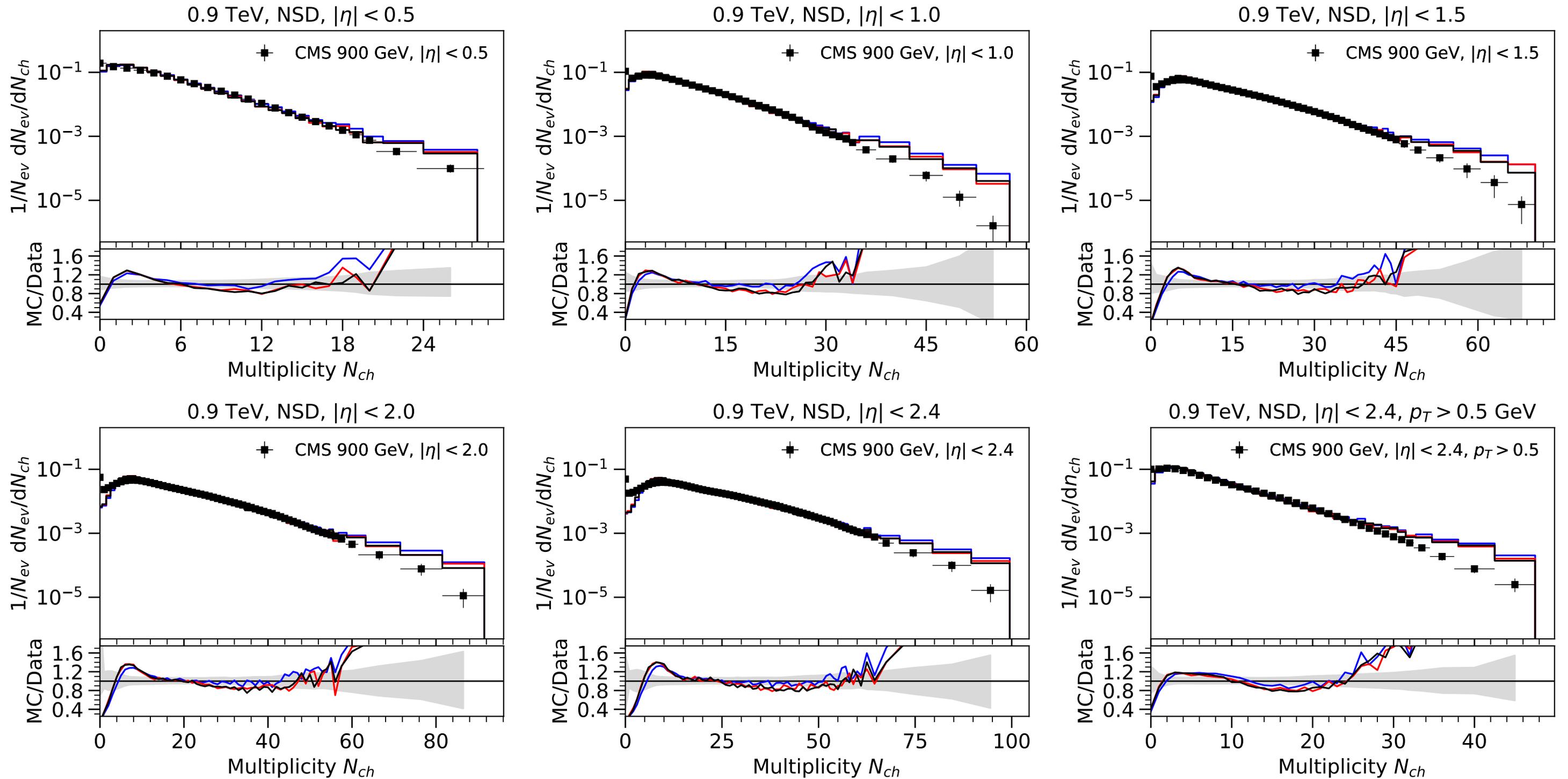


ALICE - 8TeV INEL > 0 Multiplicity distribution.

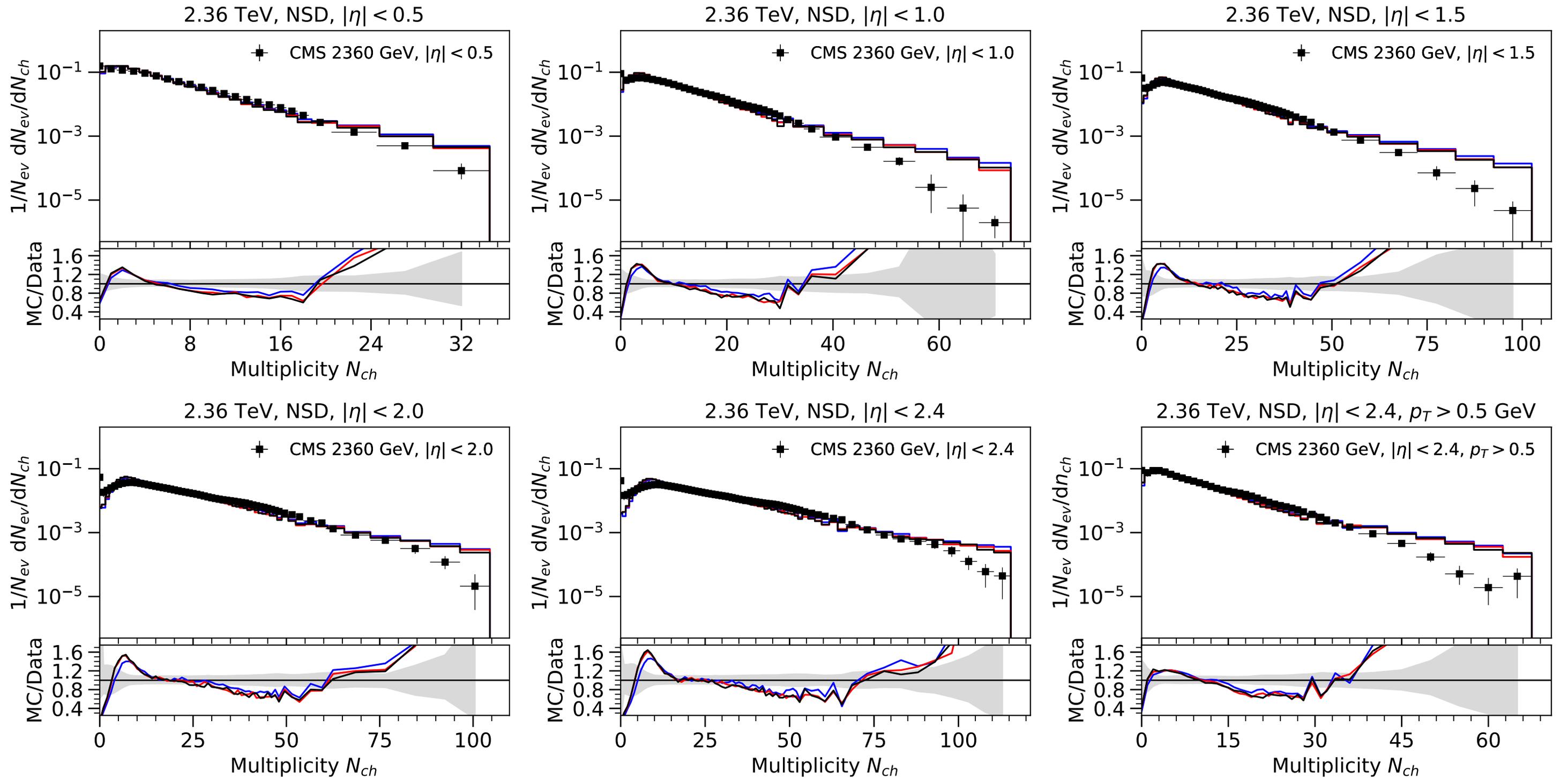


LHC: CMS Minimum Bias

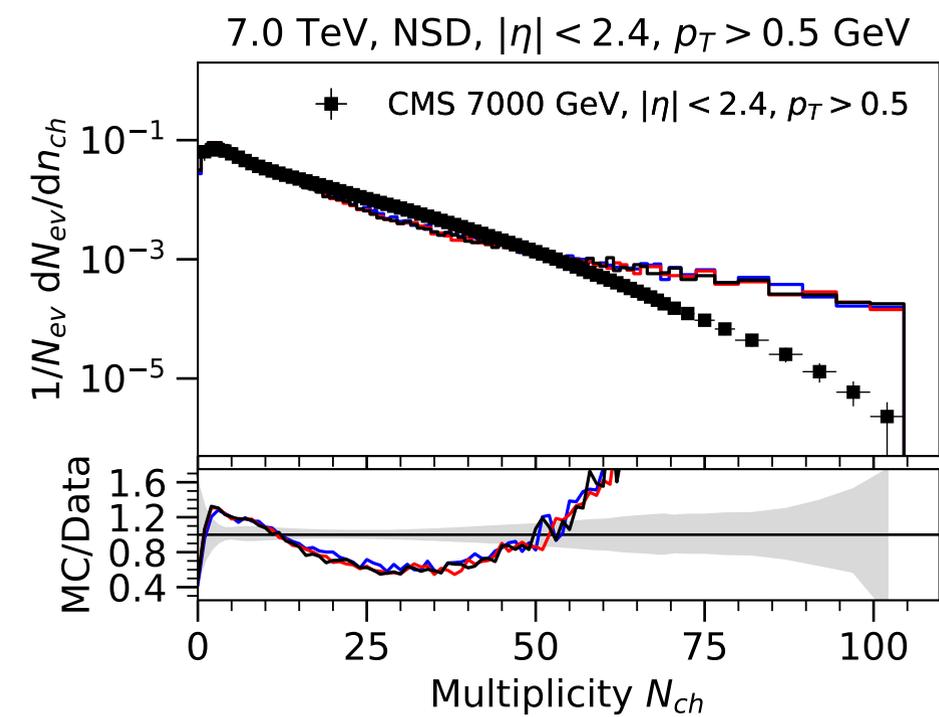
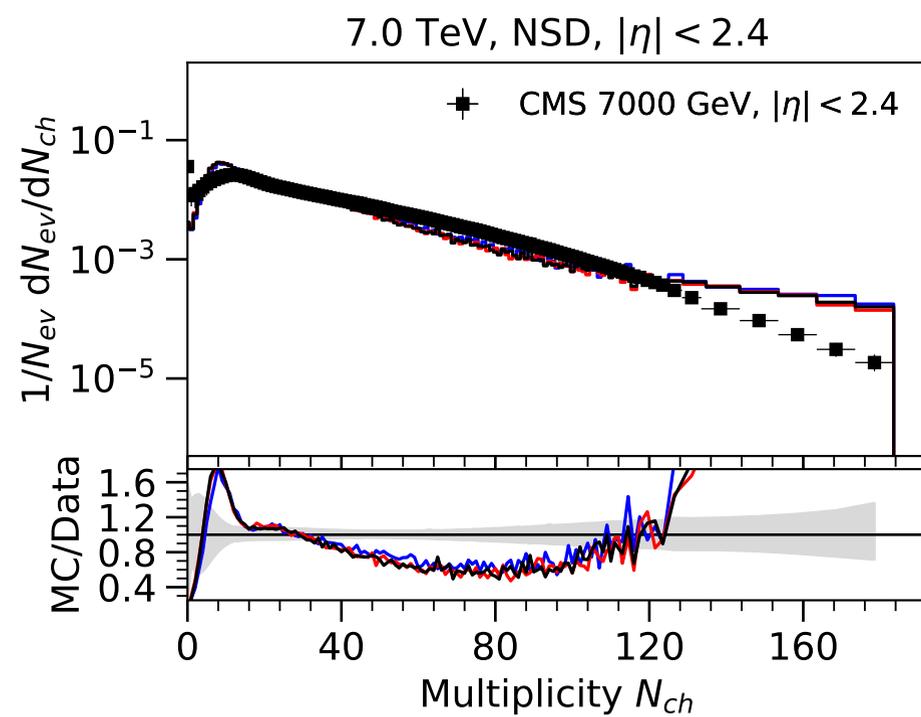
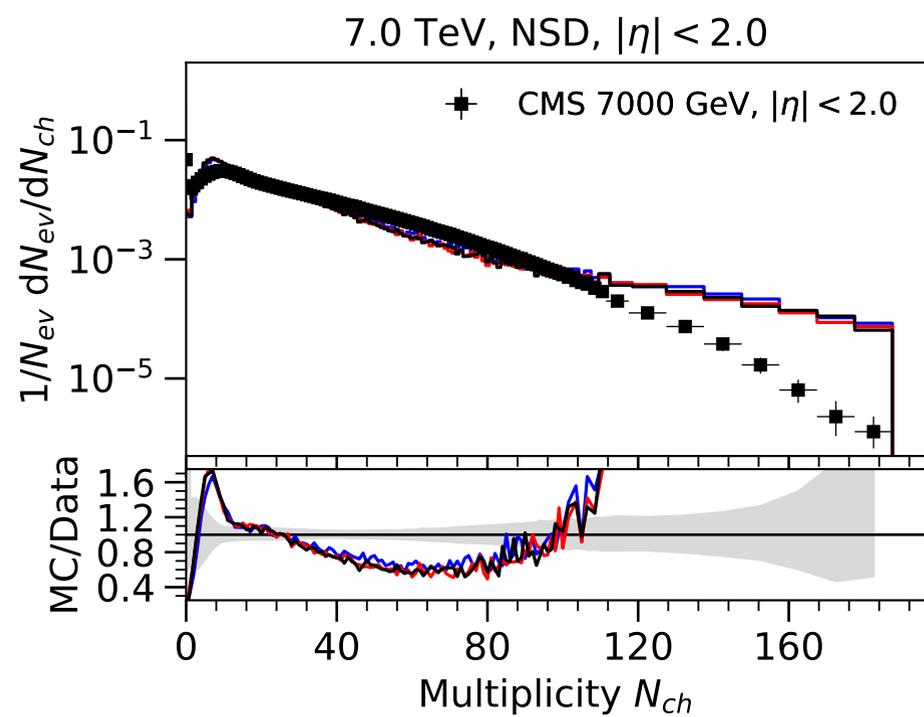
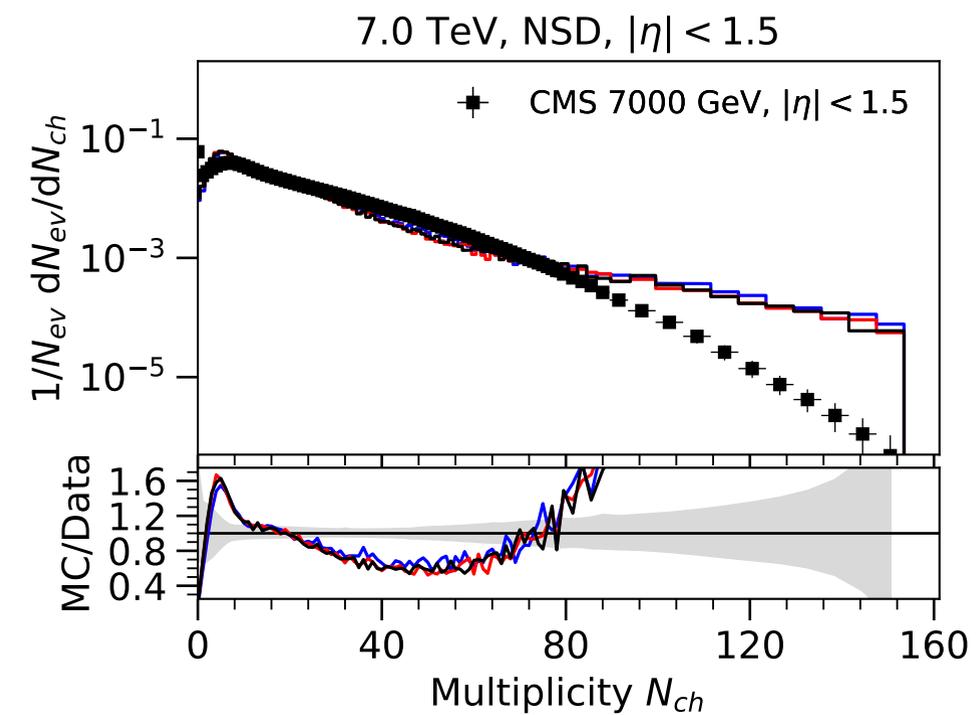
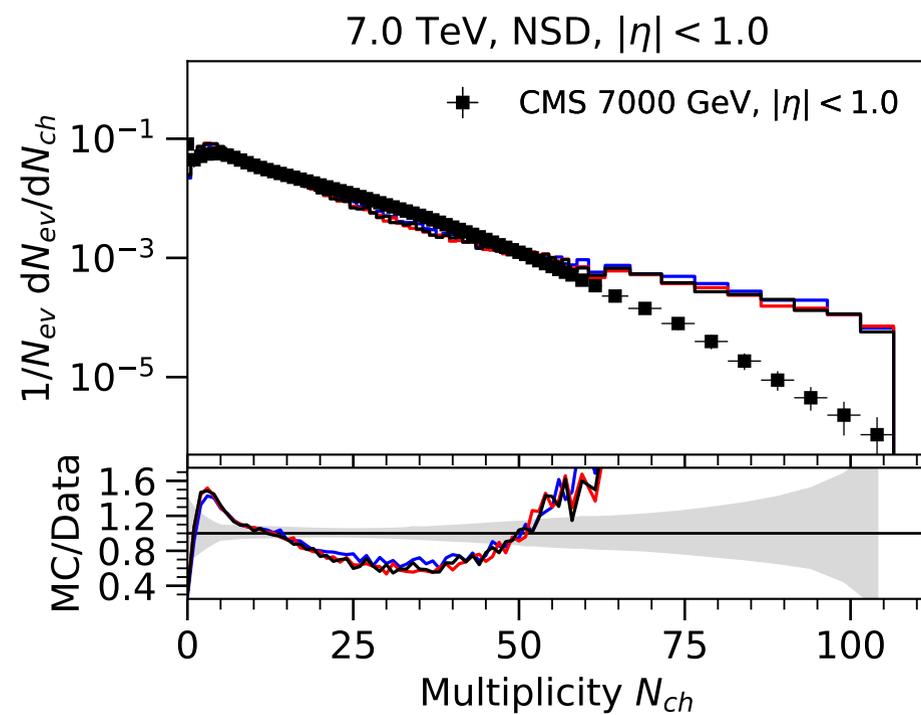
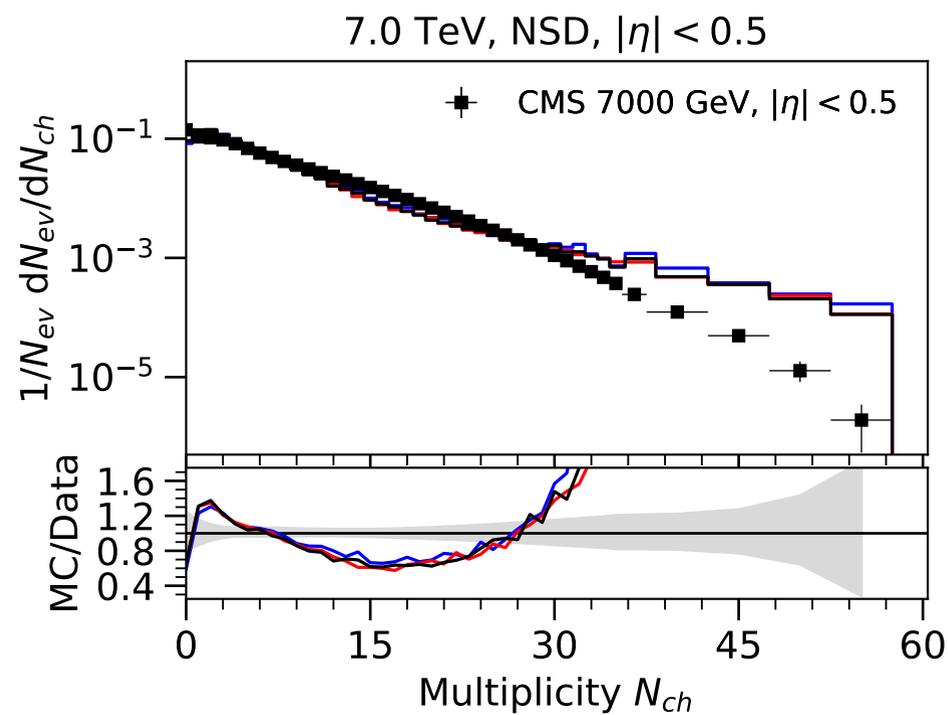
CMS 900 GeV - NSD charged particle multiplicity.



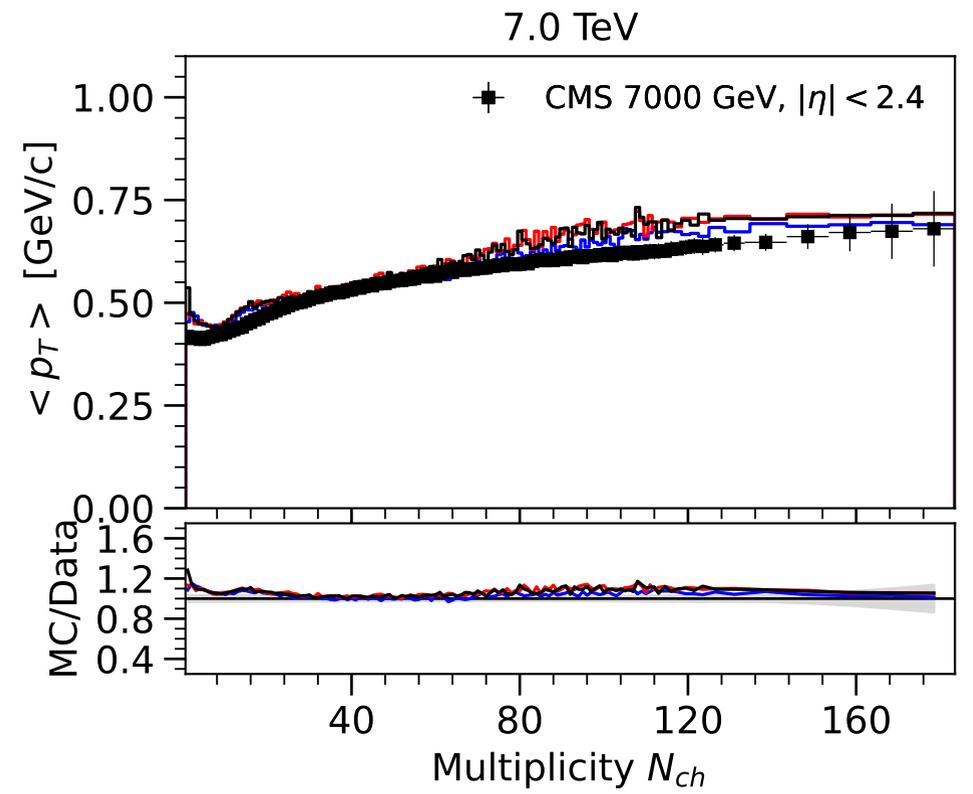
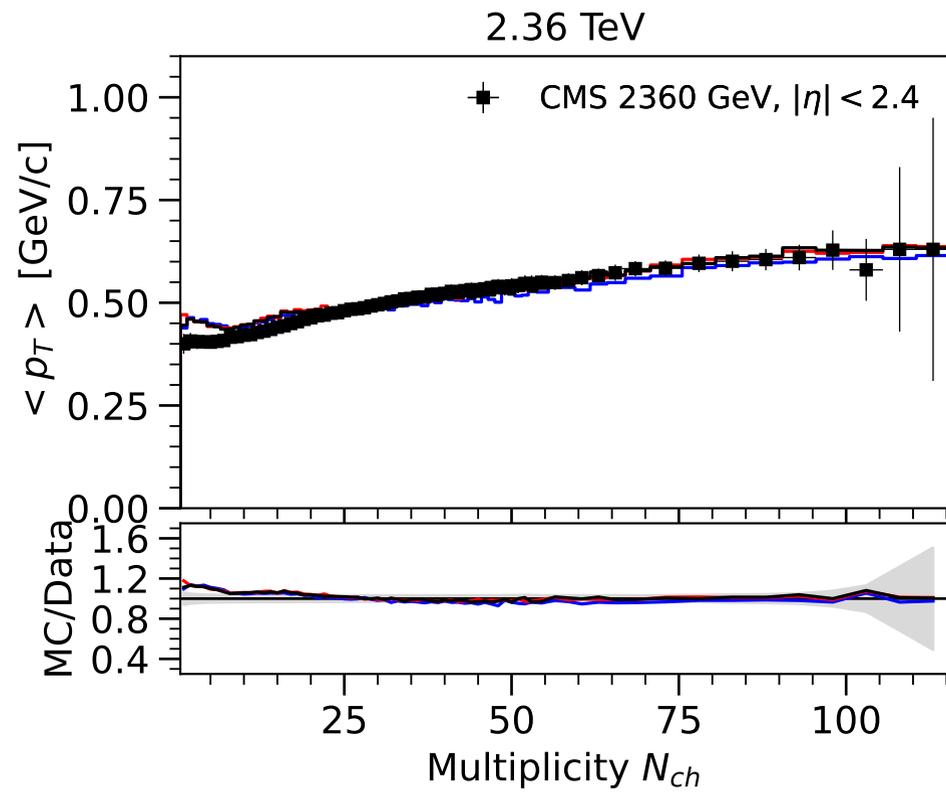
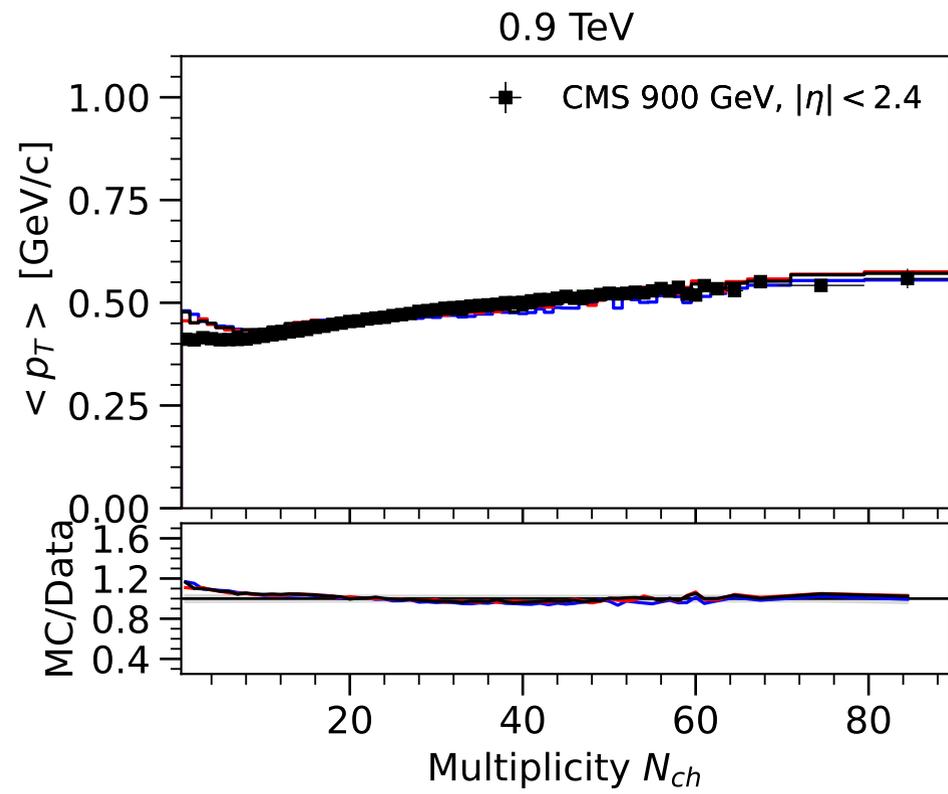
CMS 2360 GeV - NSD charged particle multiplicity.



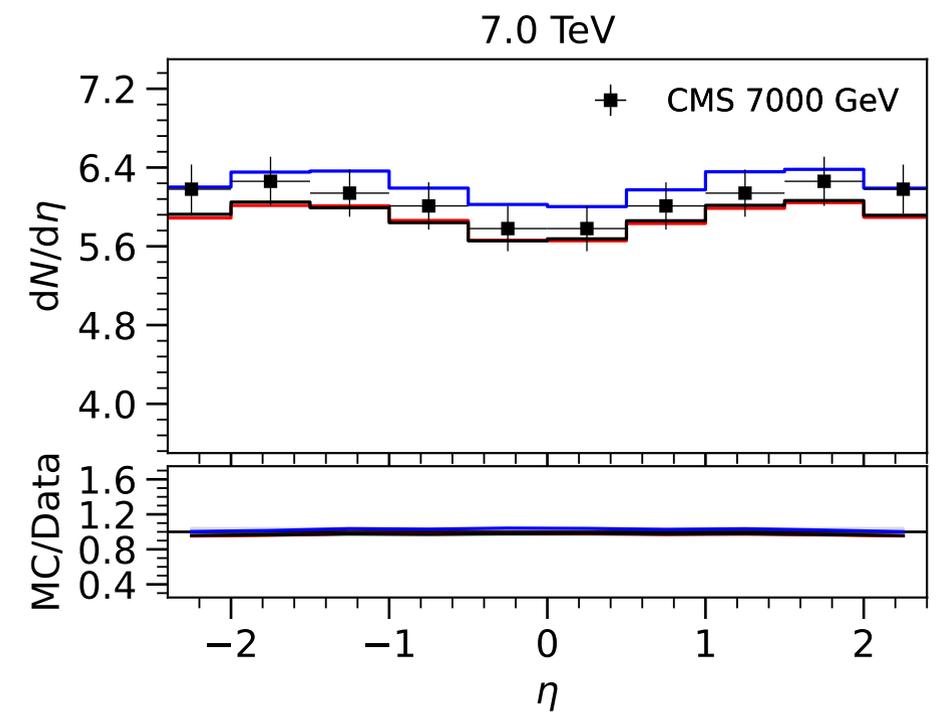
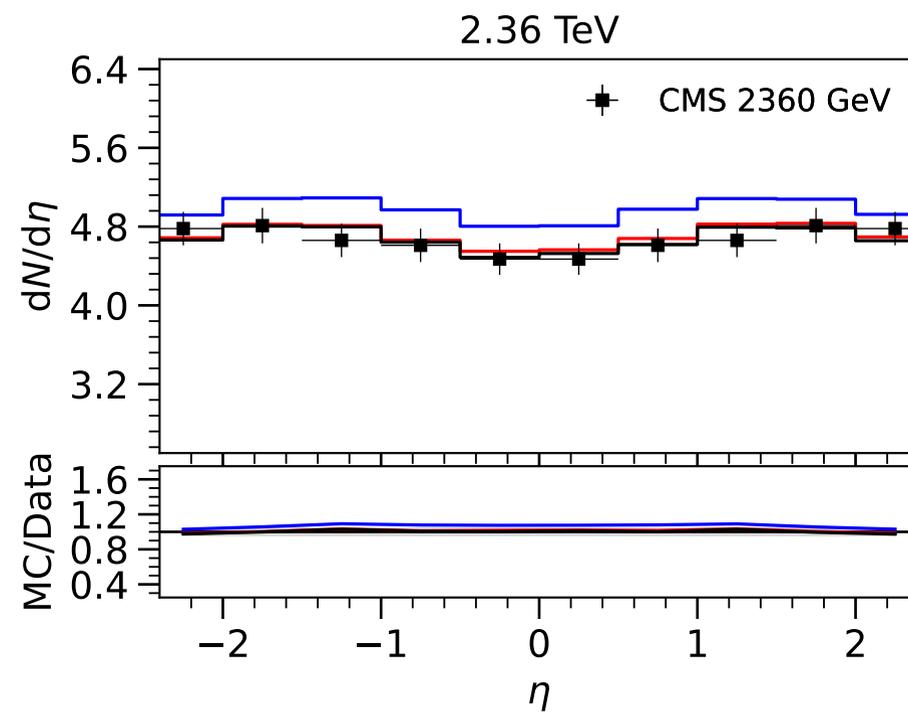
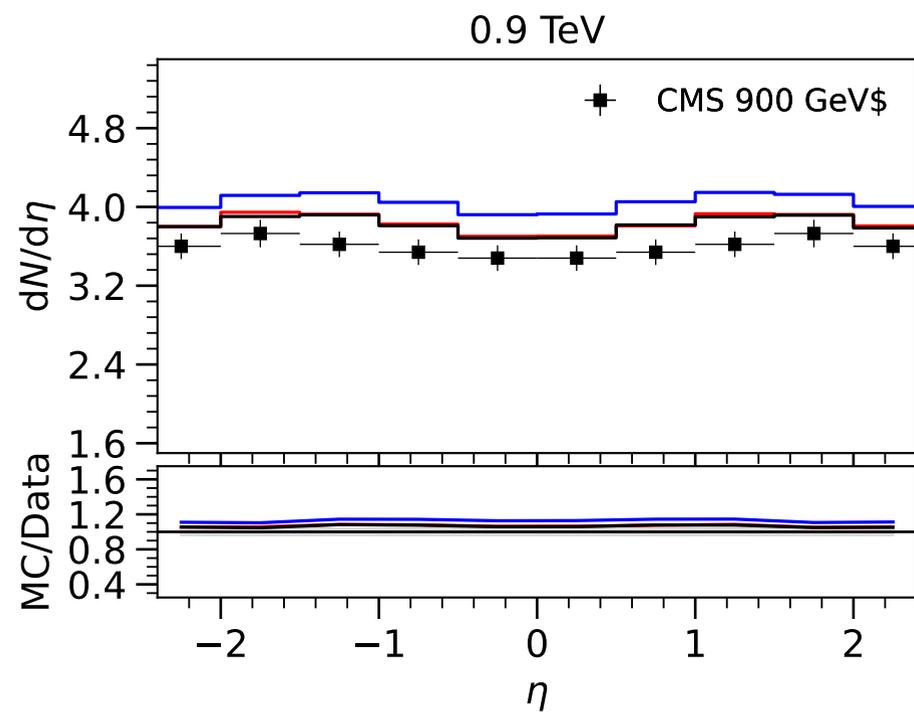
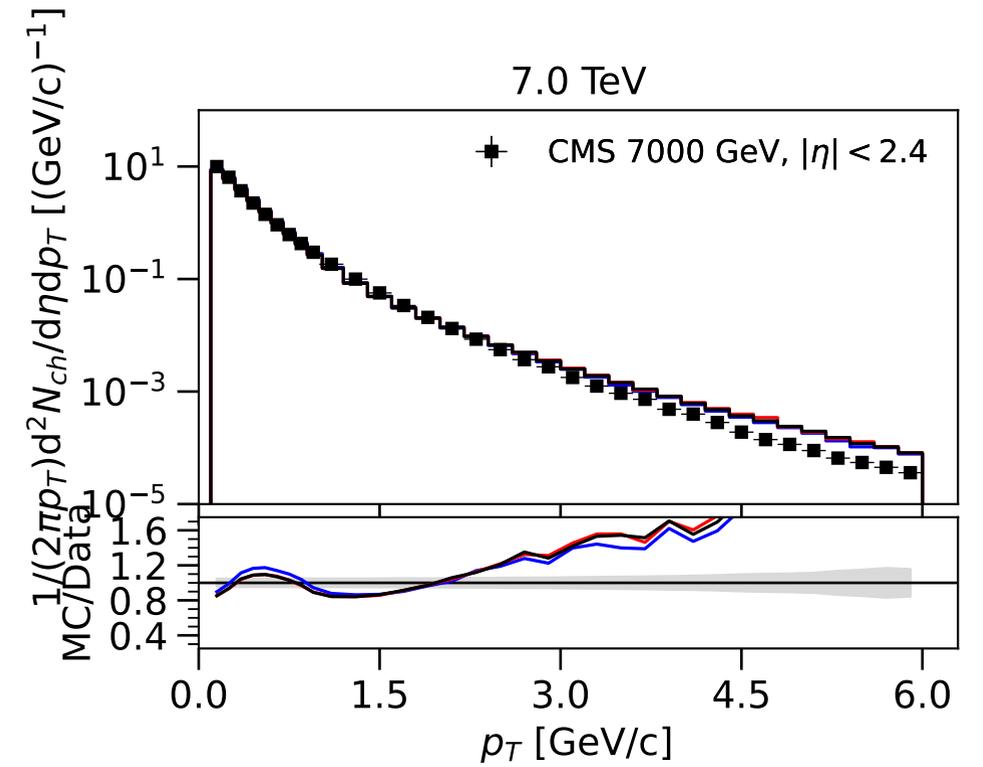
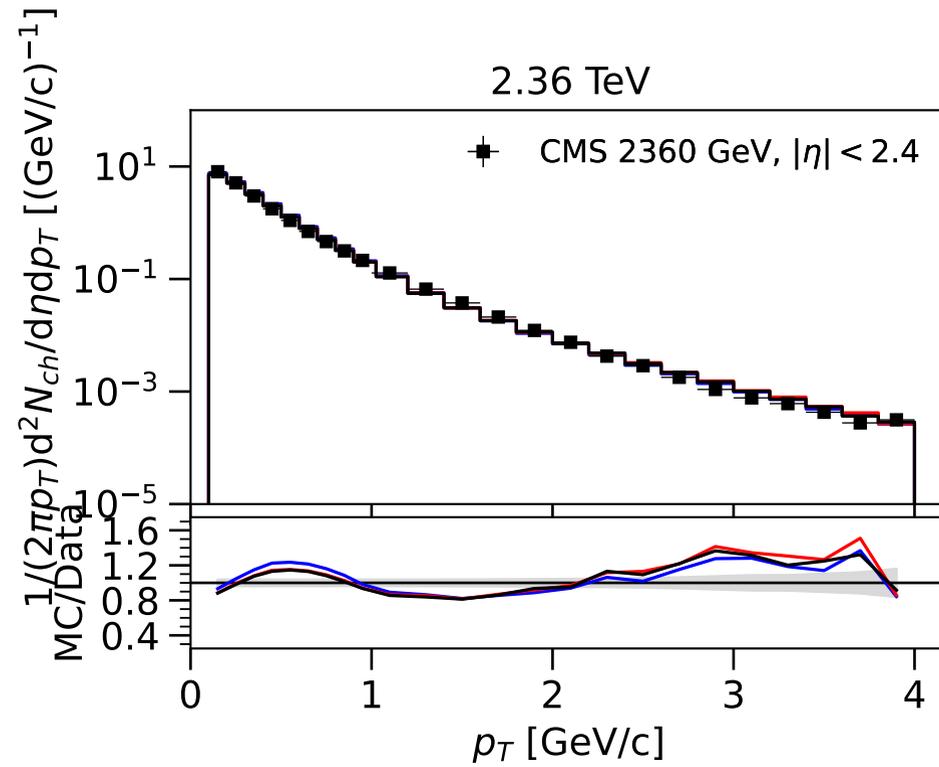
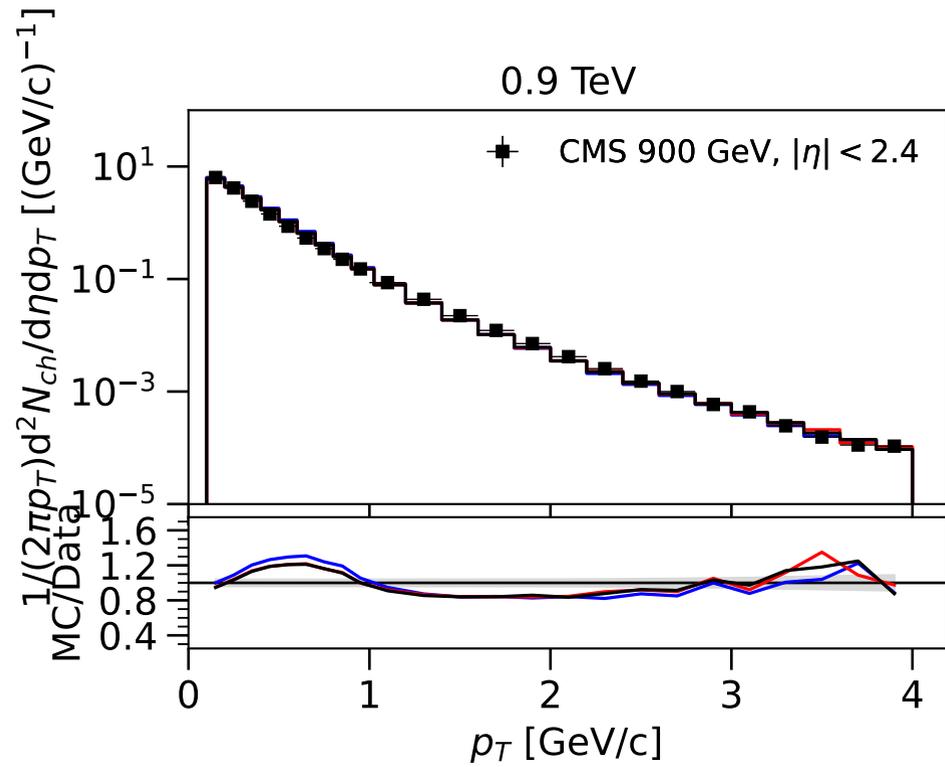
CMS 7000 GeV - NSD charged particle multiplicity.



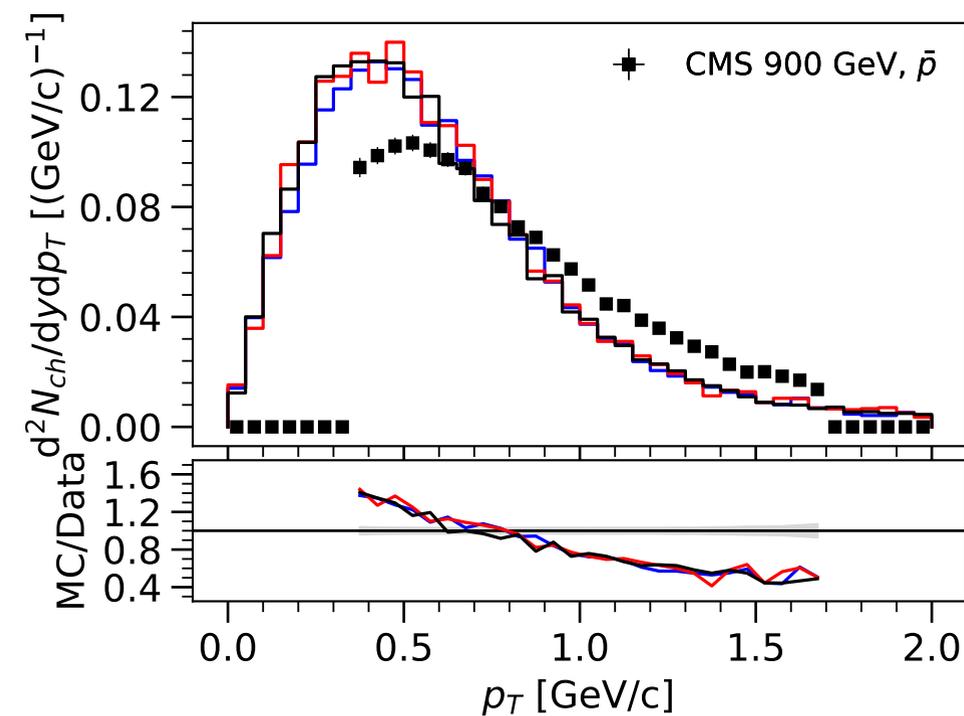
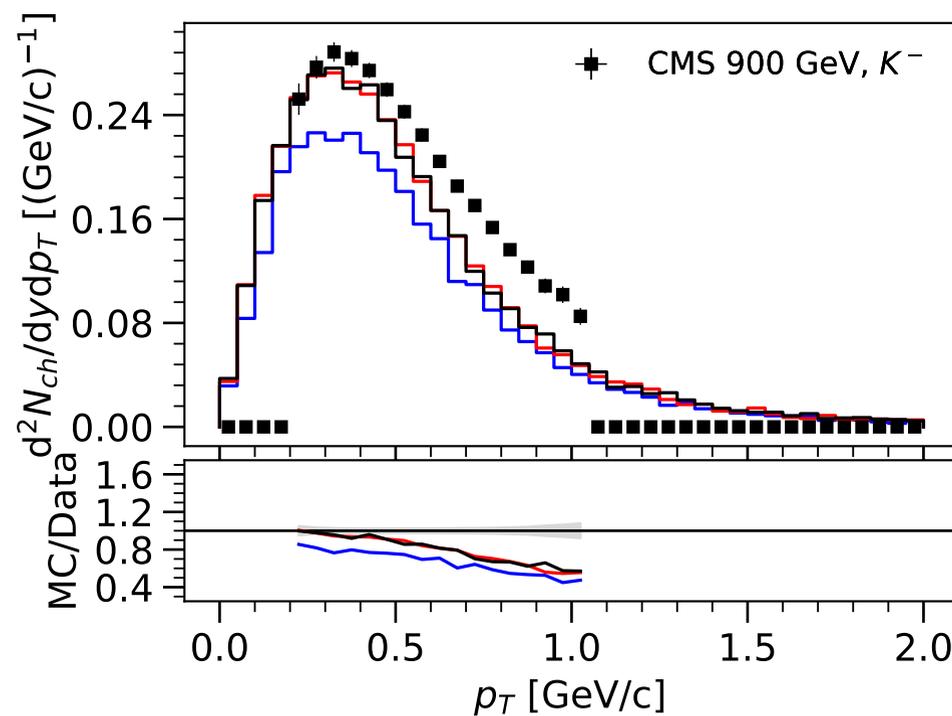
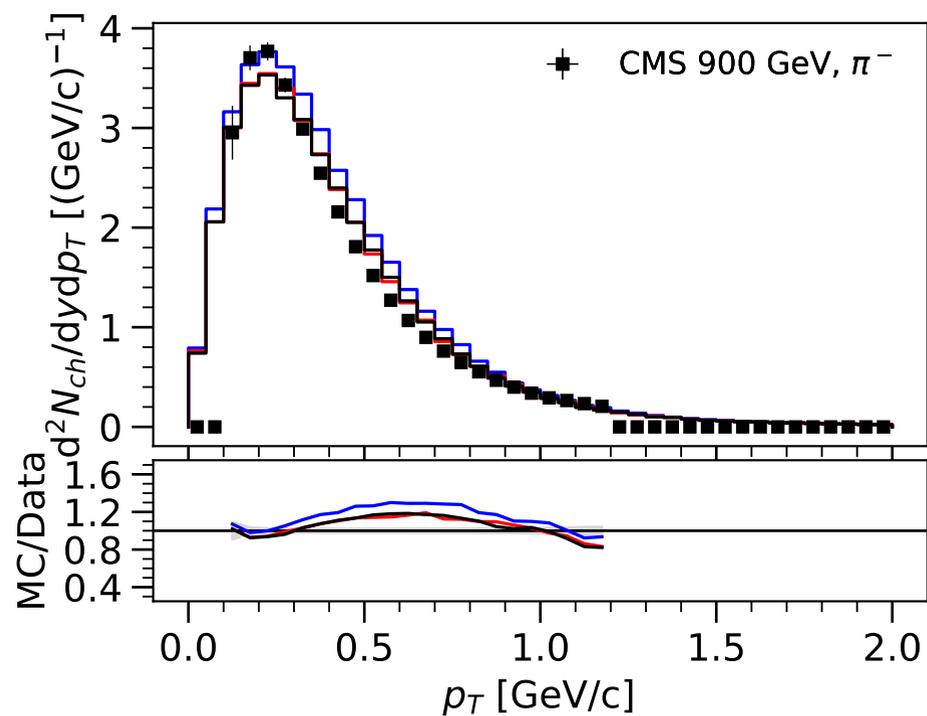
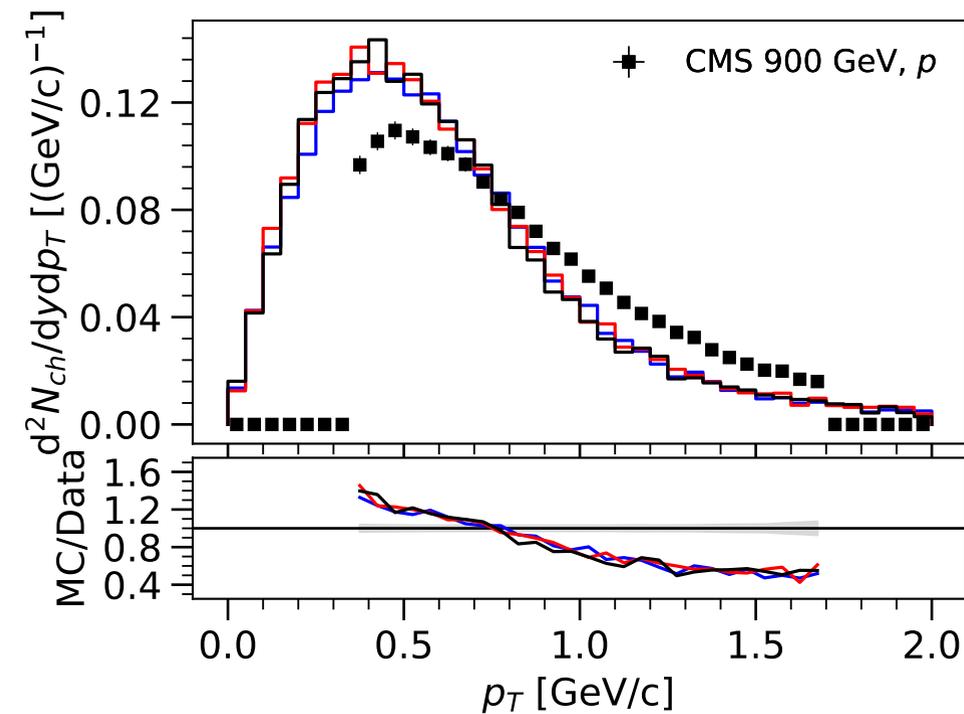
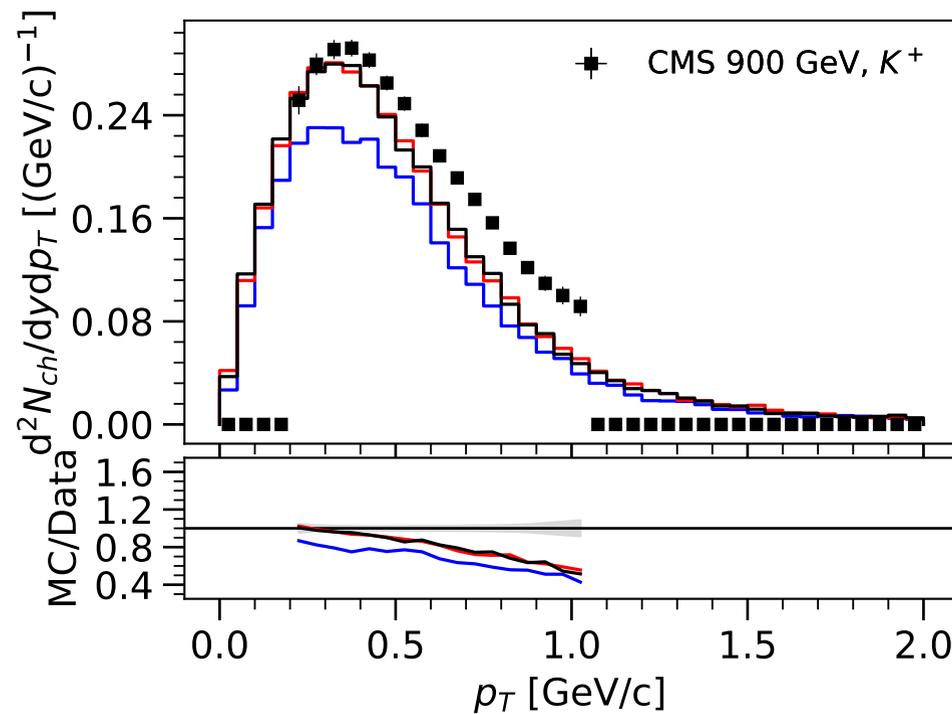
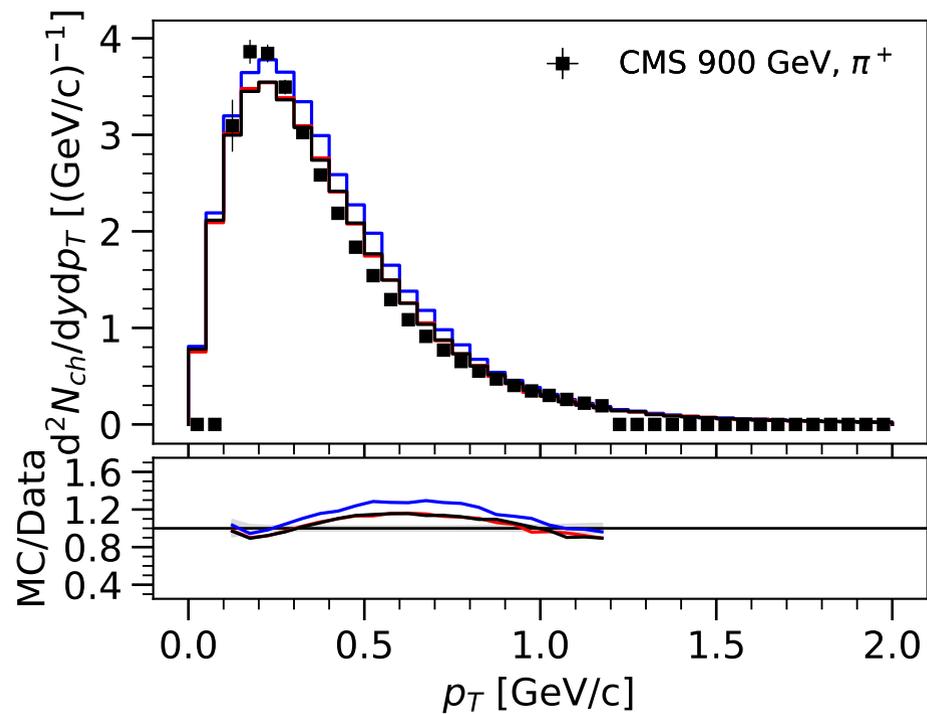
CMS - average p_T for multiplicity bins.



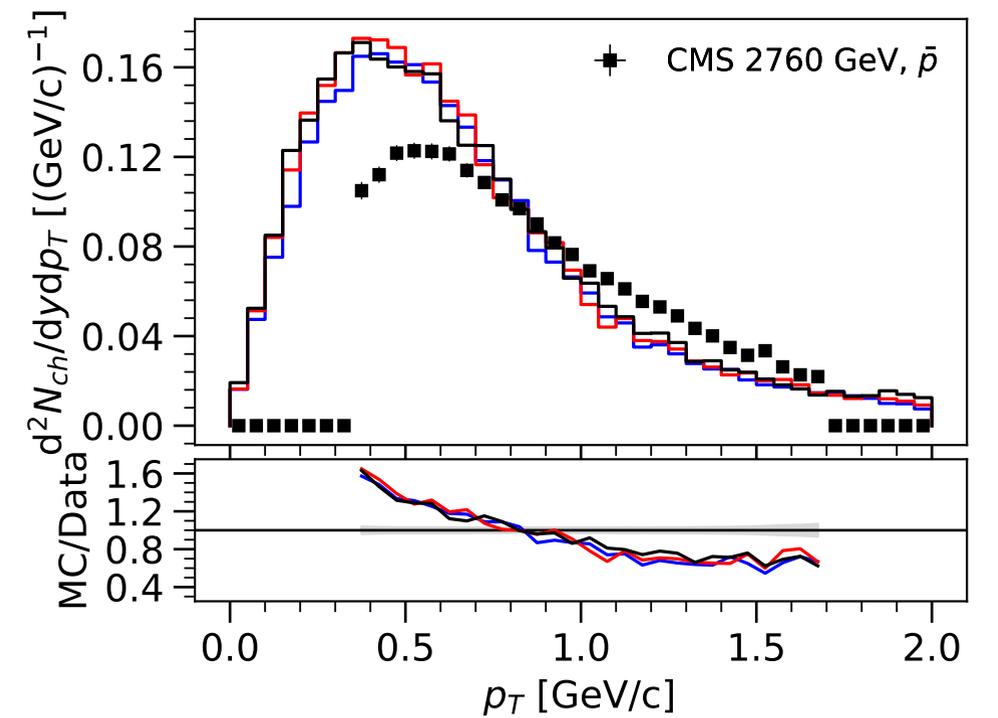
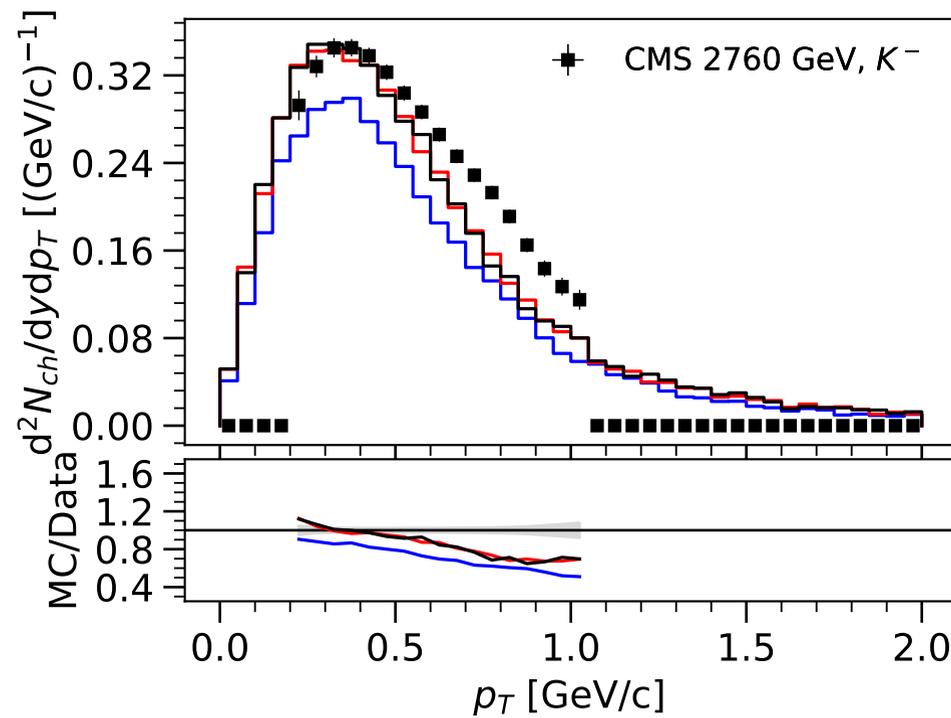
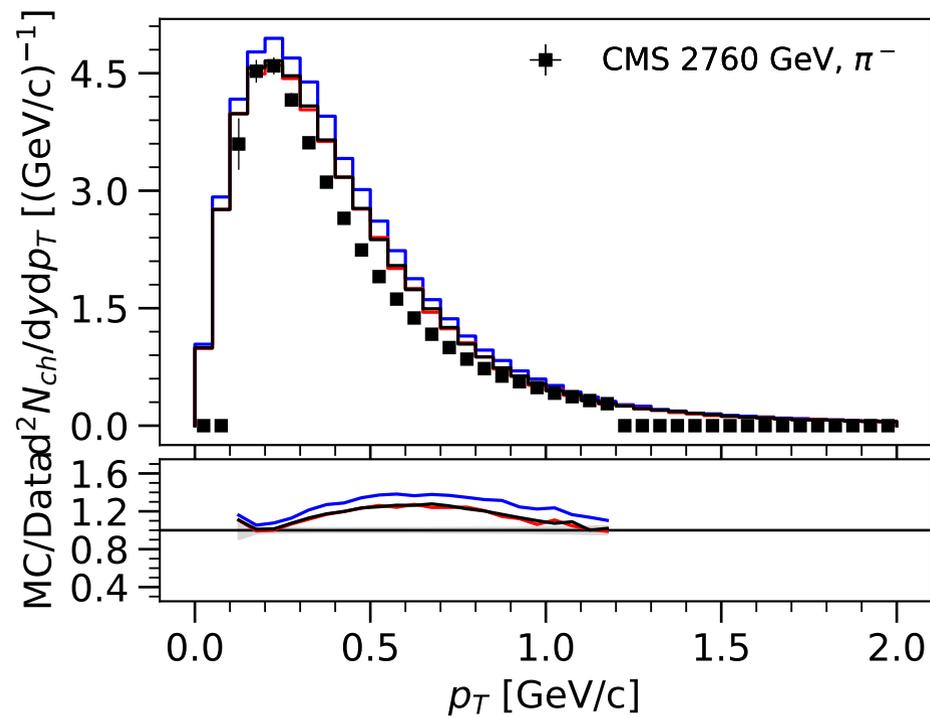
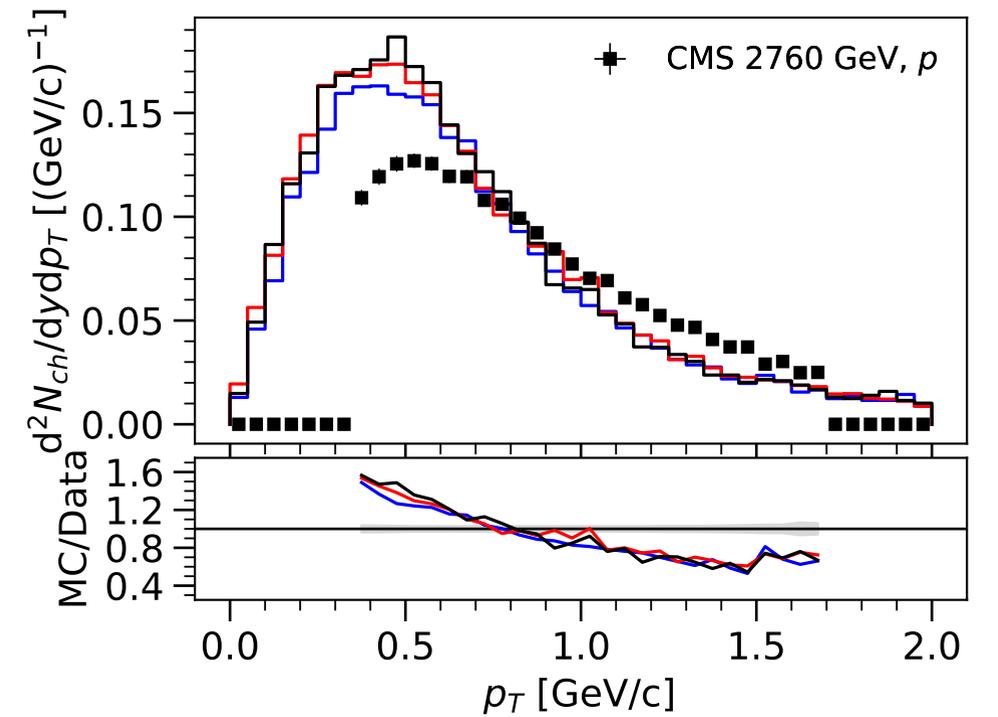
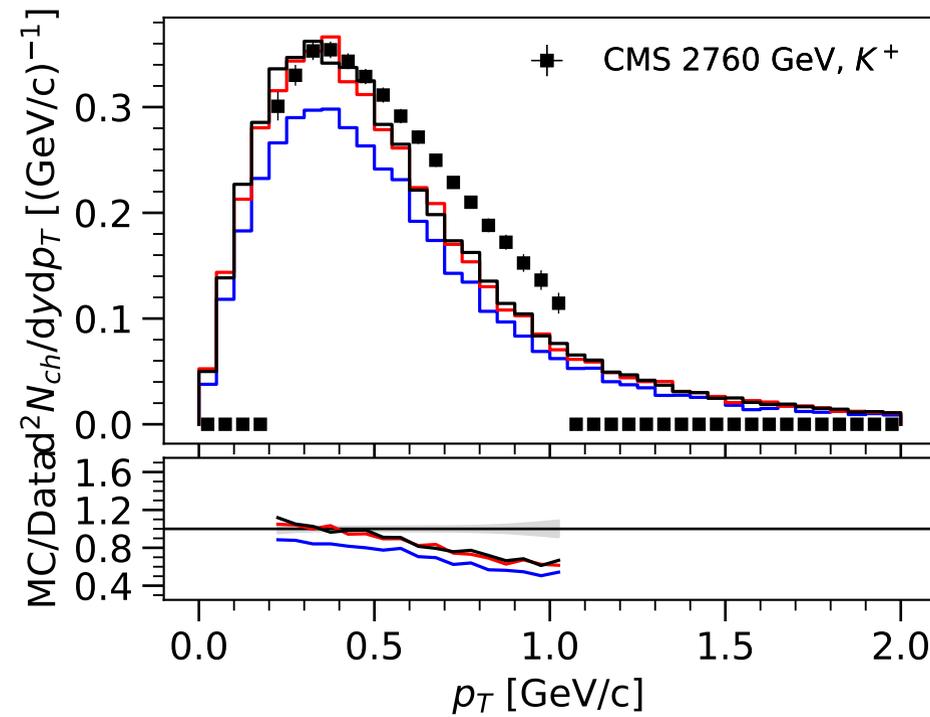
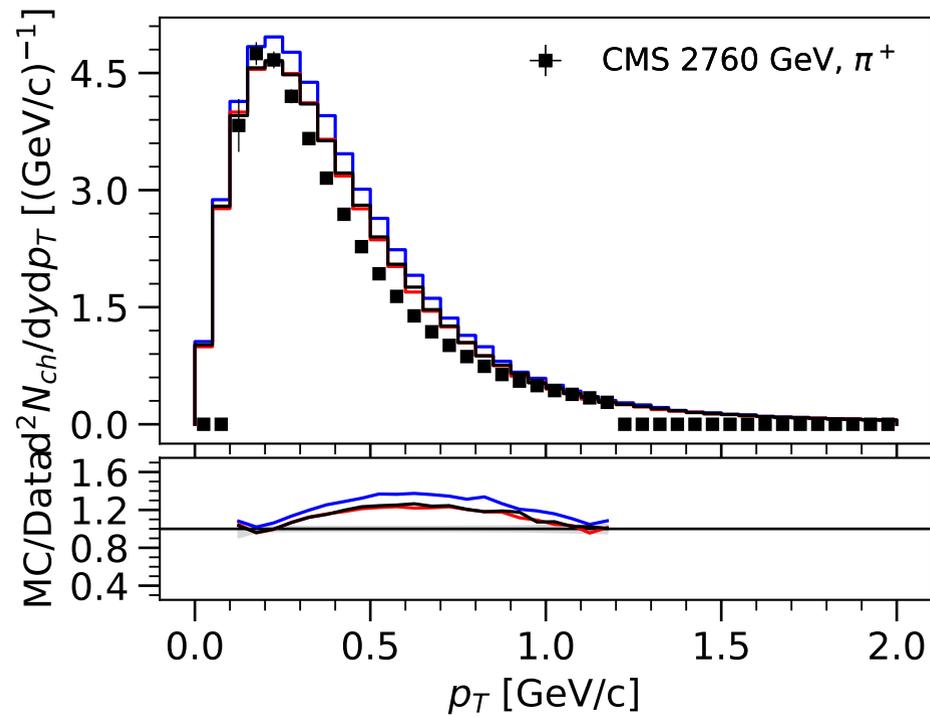
CMS - NSD p_T and η distributions.



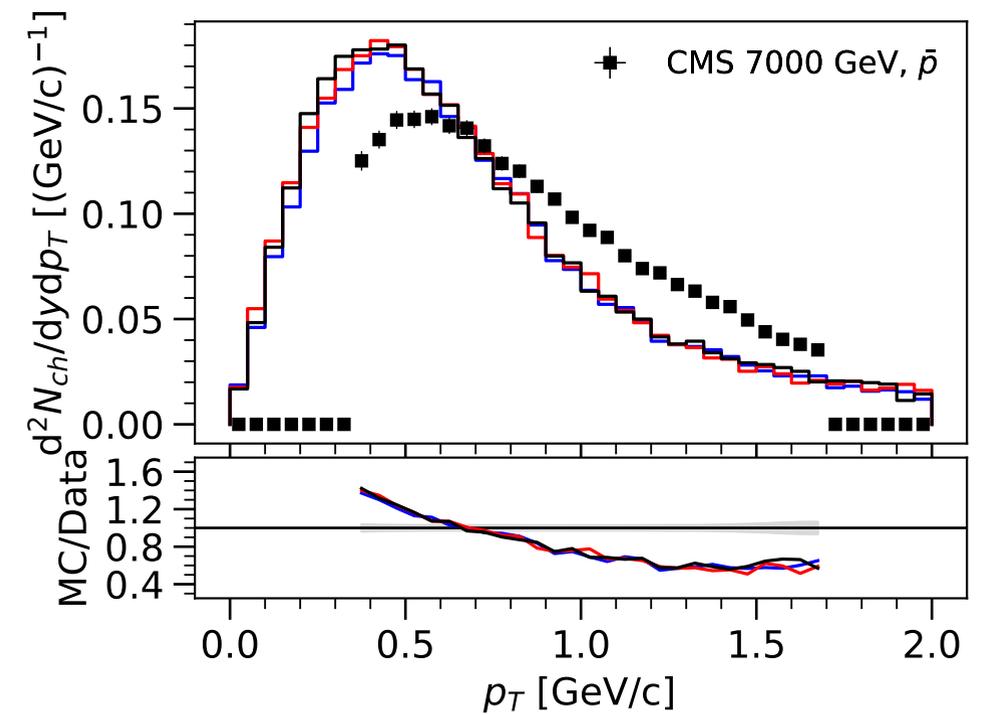
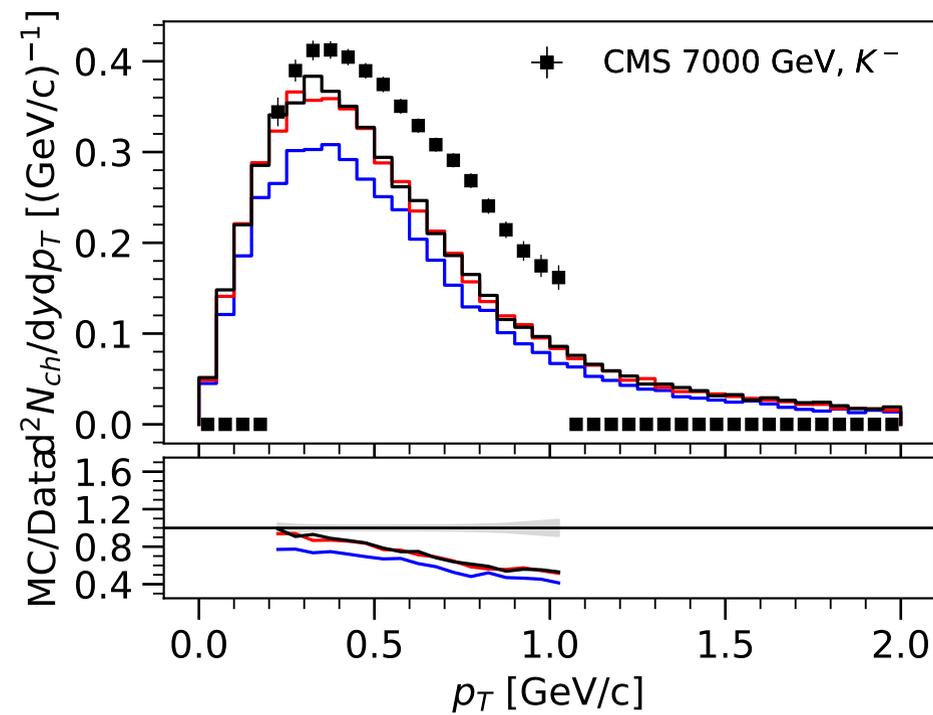
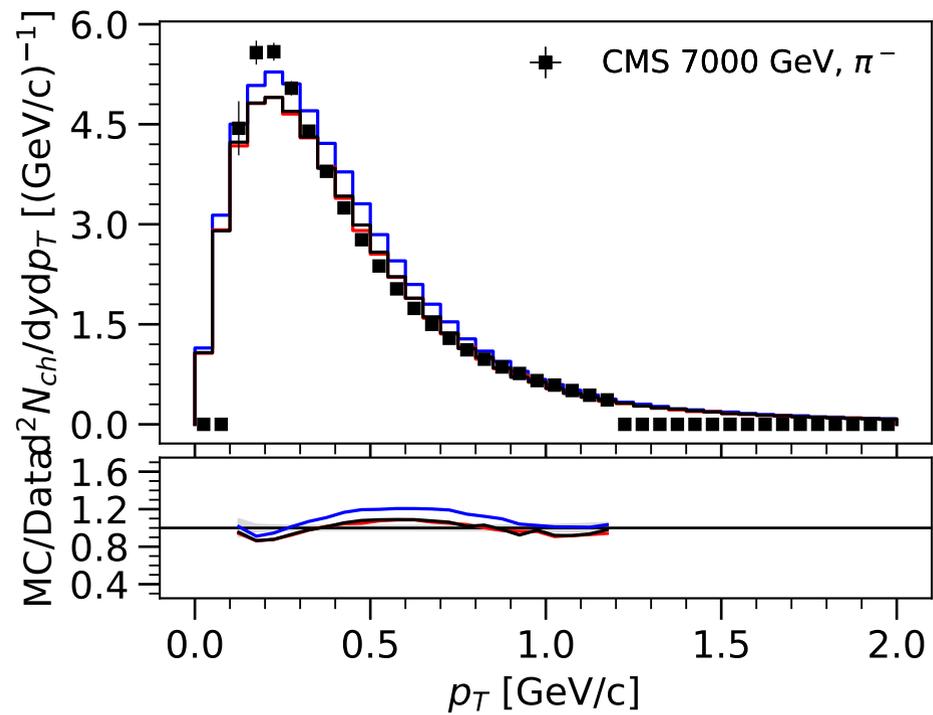
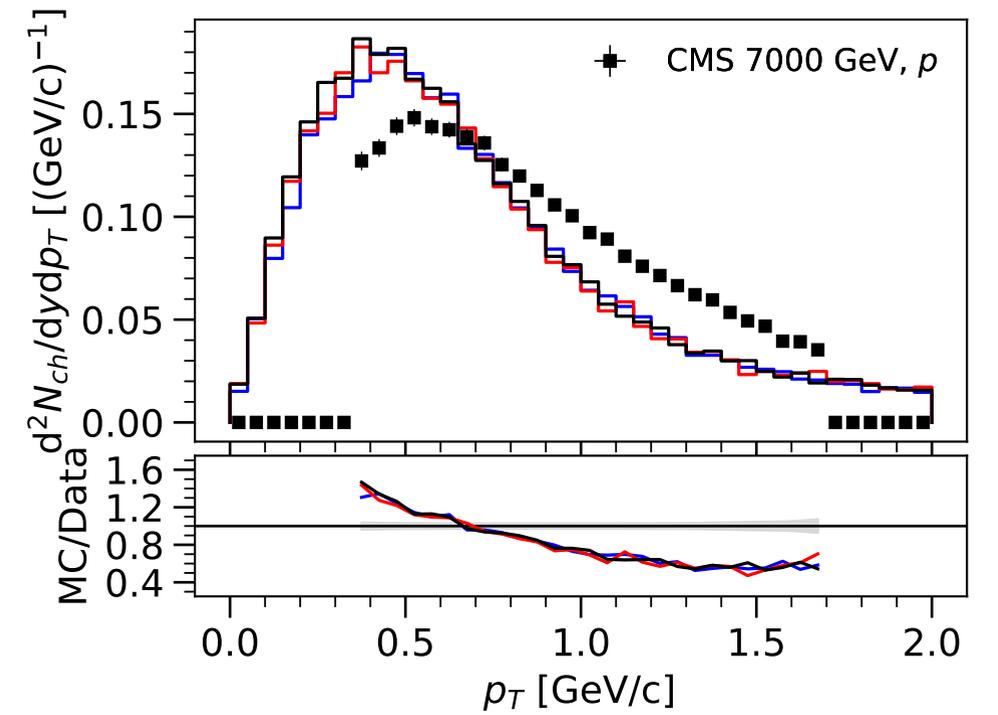
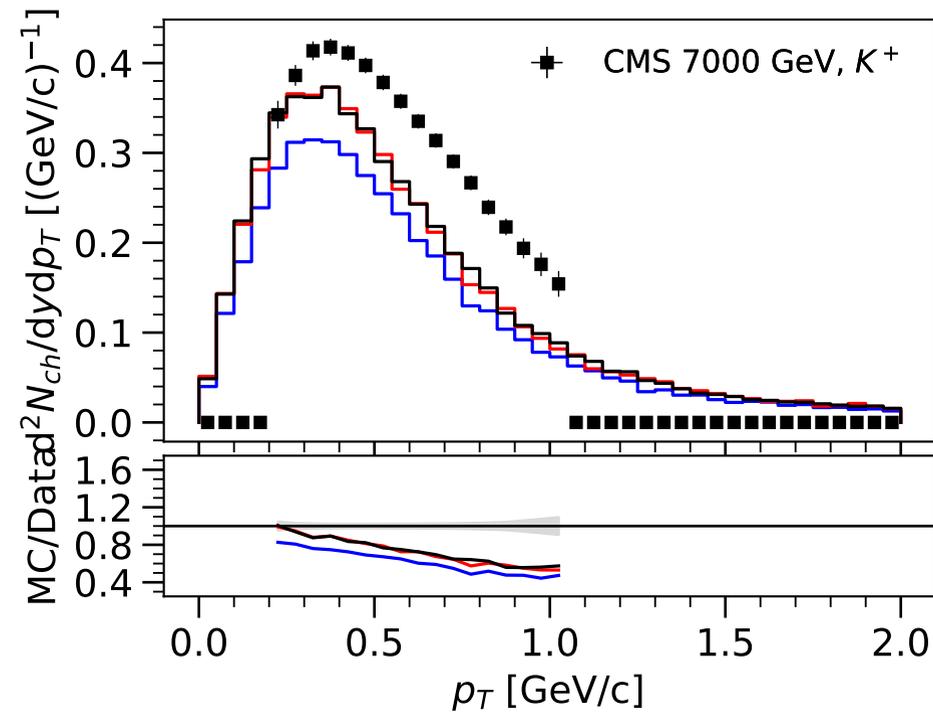
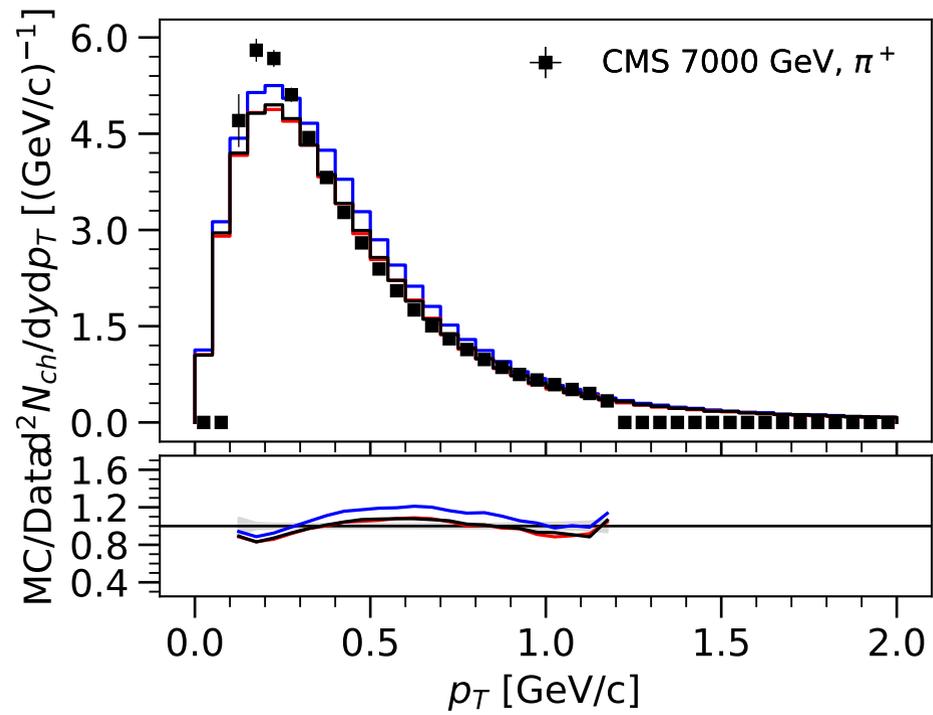
CMS - identified particle spectra in $|y| < 1$ for pp at 900 GeV.



CMS - identified particle spectra in $|y| < 1$ for pp at 2760 GeV.

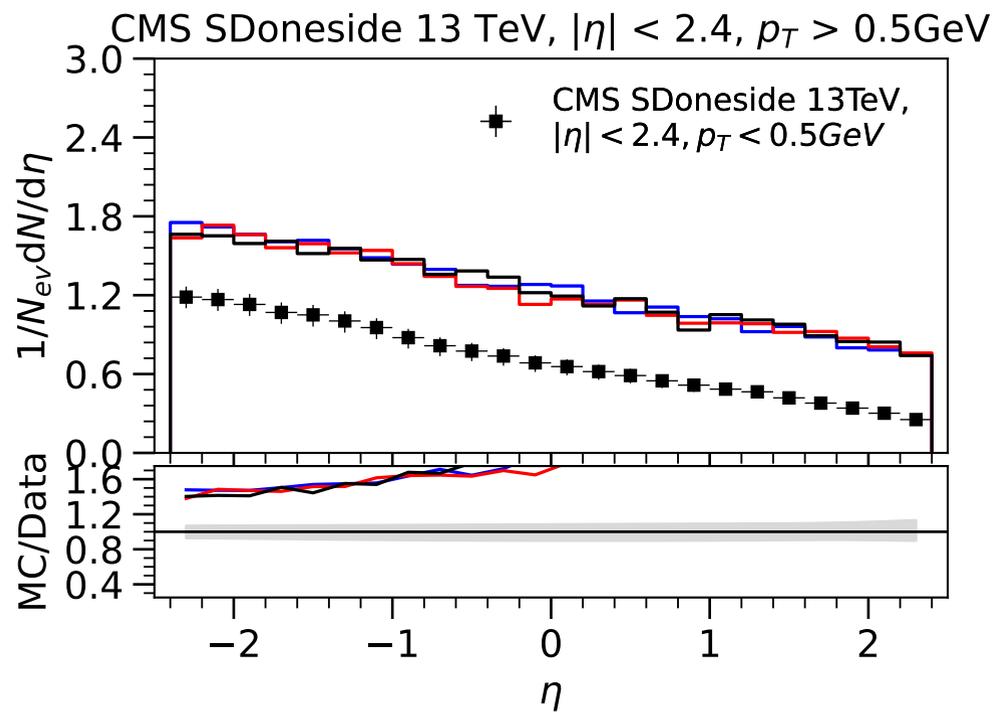
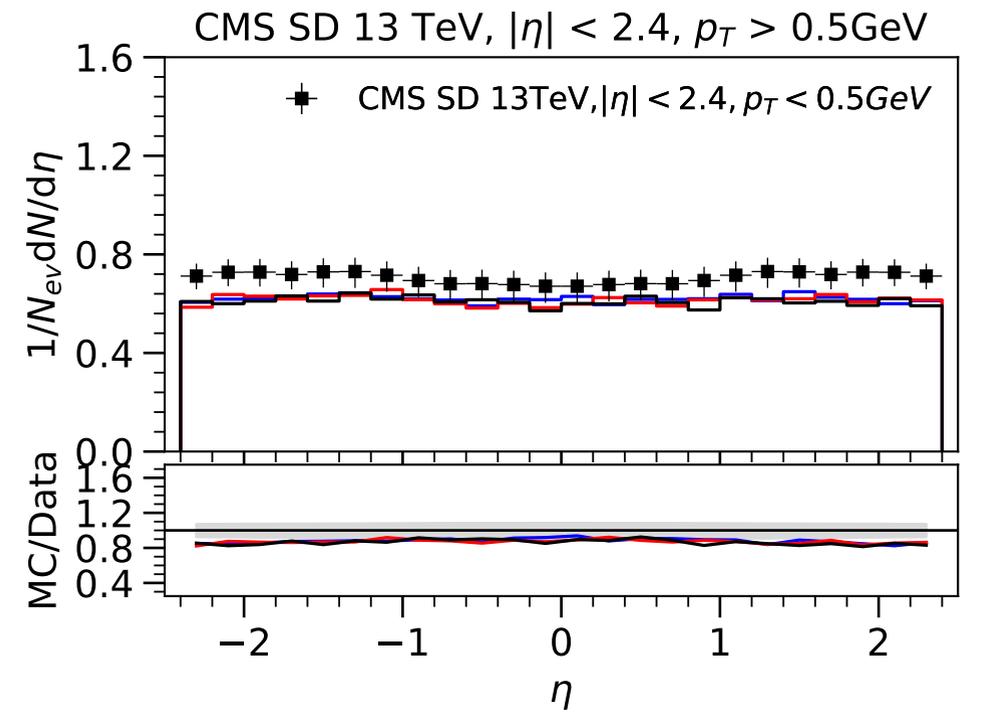
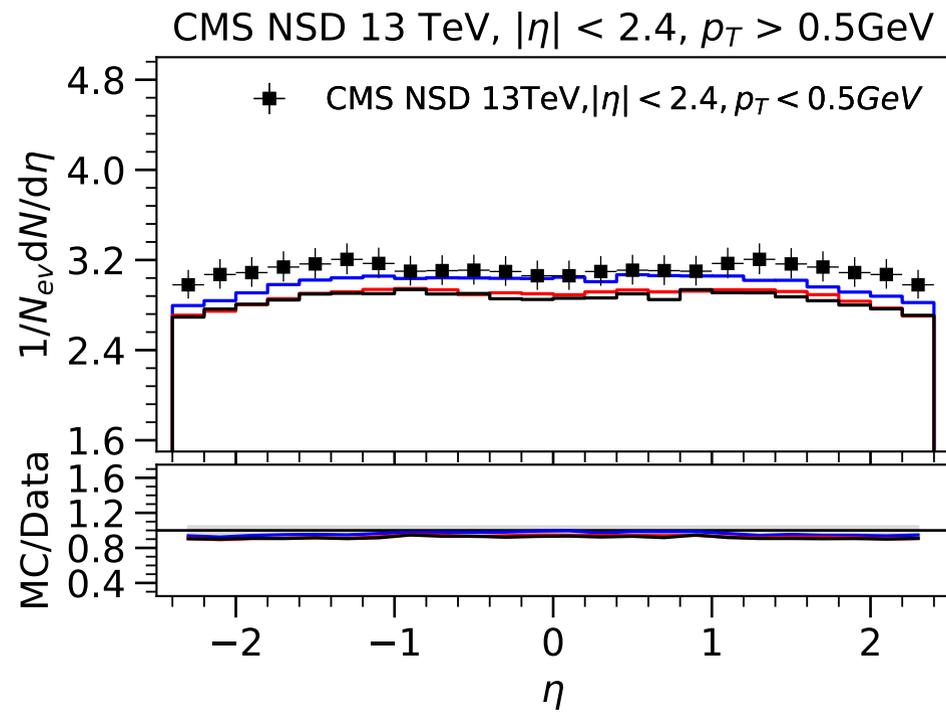
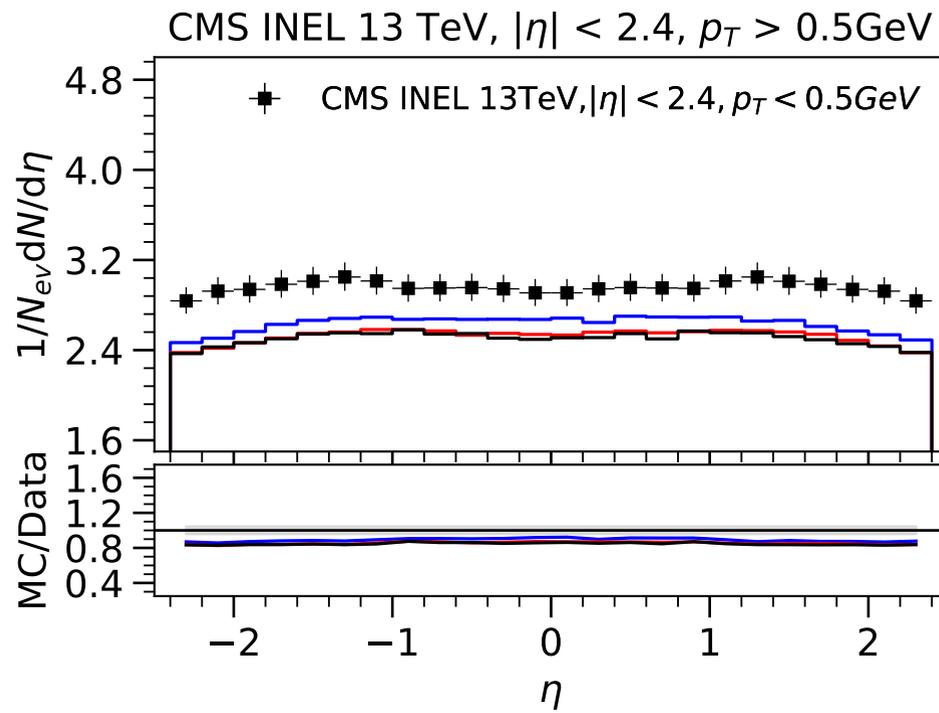


CMS - identified particle spectra in $|y| < 1$ for pp at 7000 GeV.

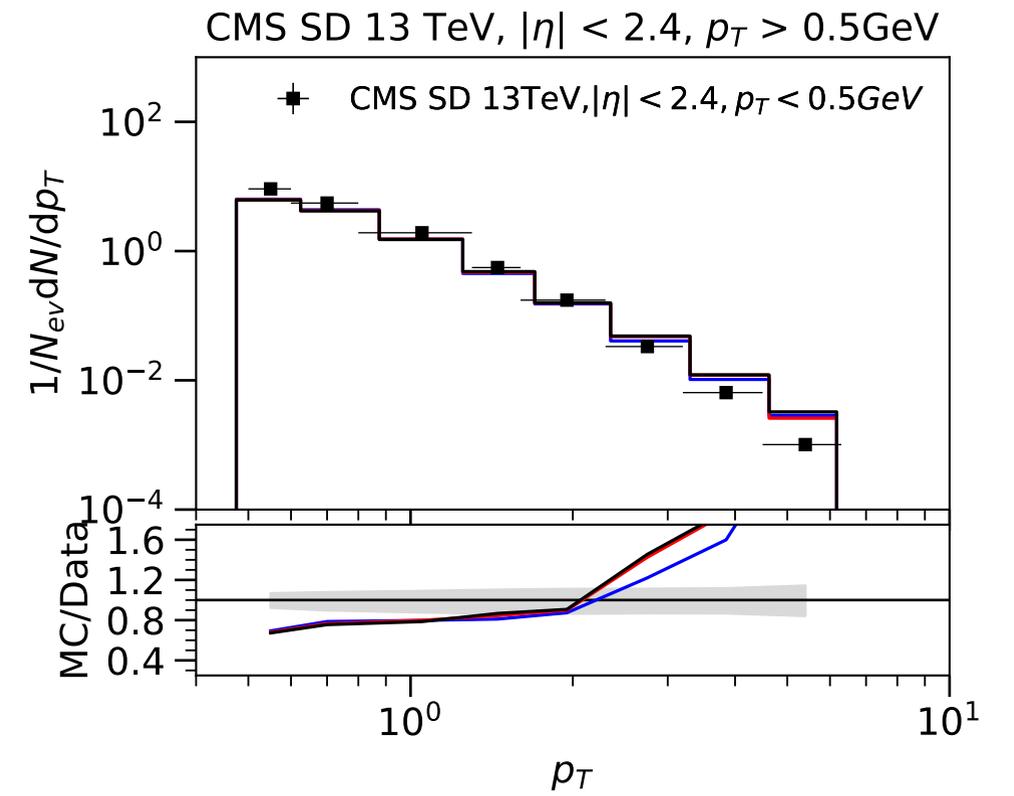
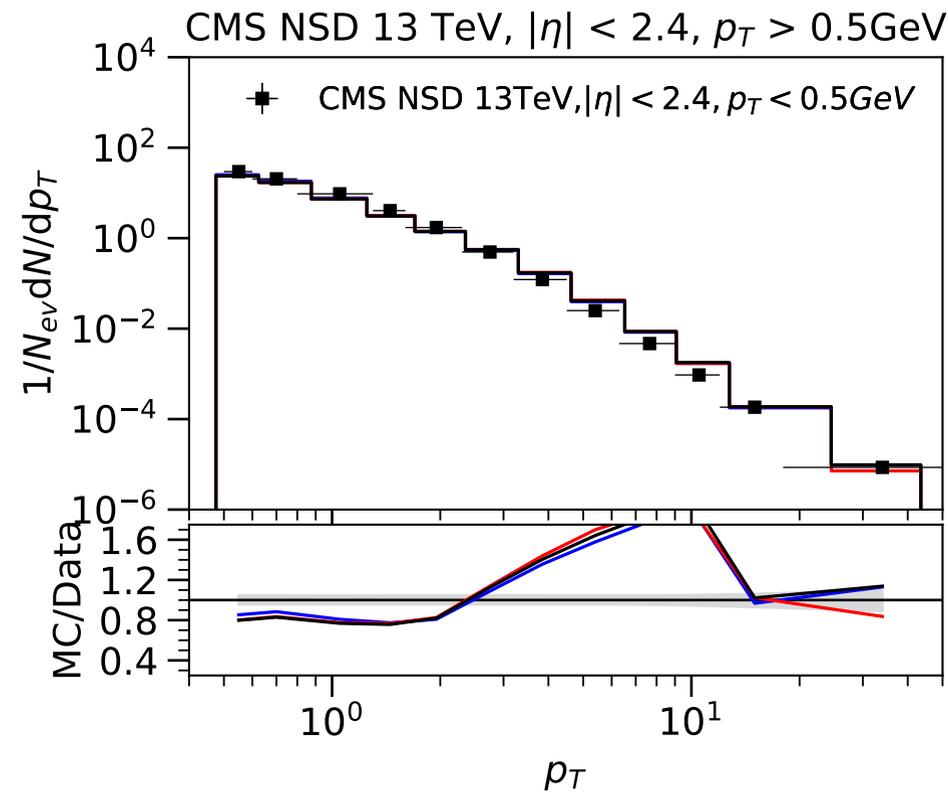
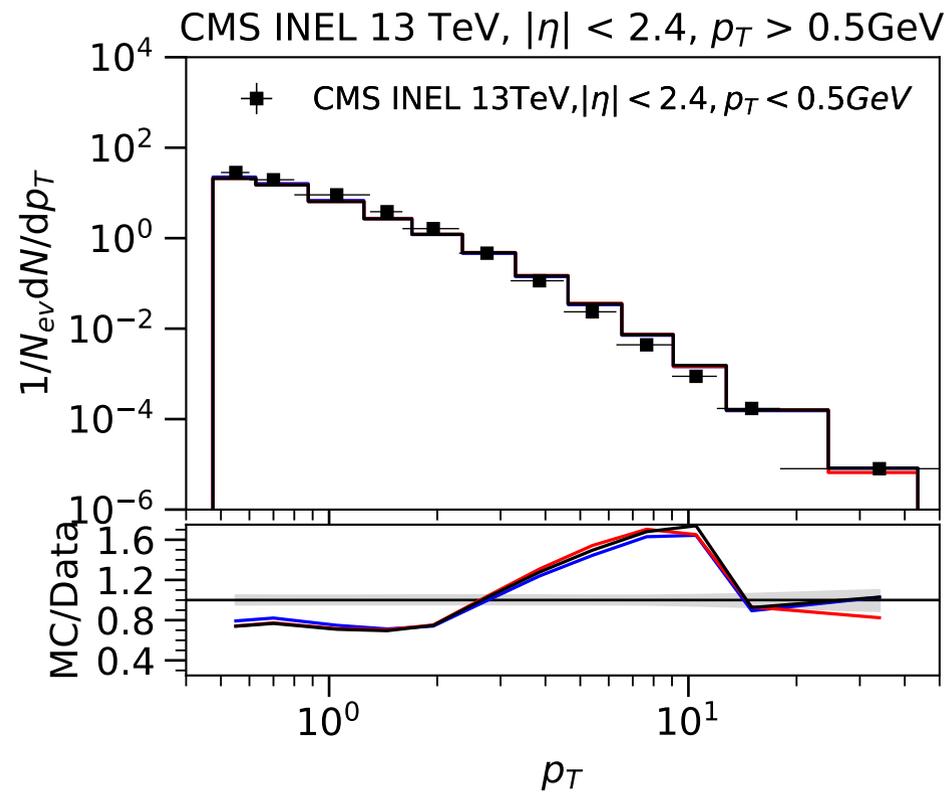


LHC: CMS Minimum Bias 13 TeV

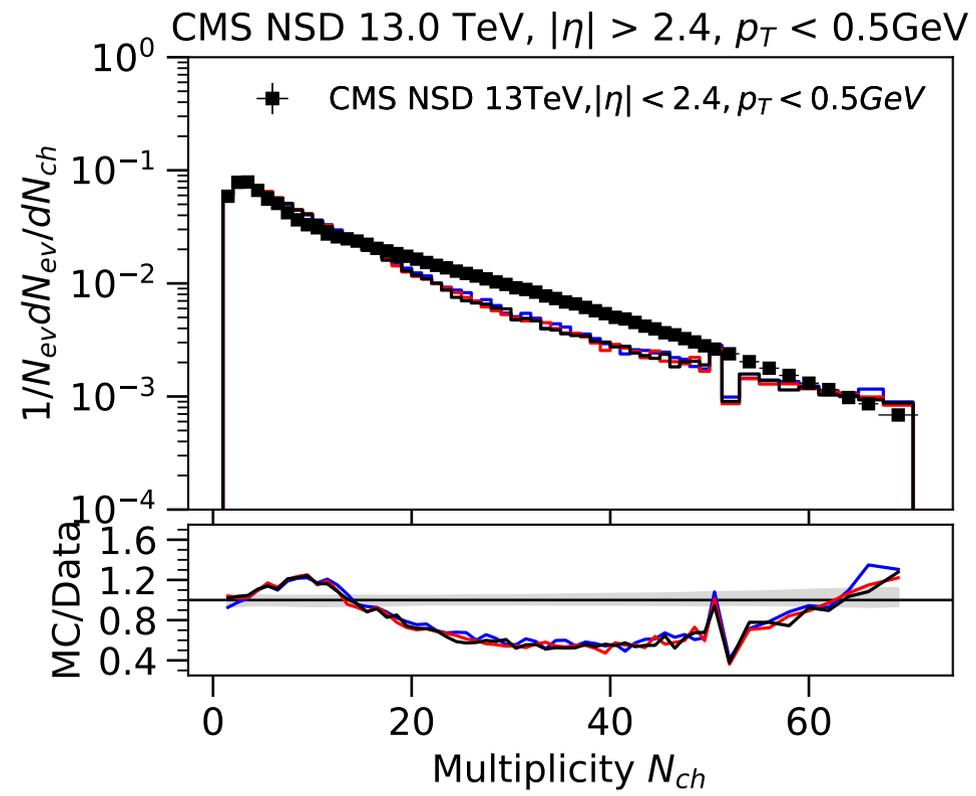
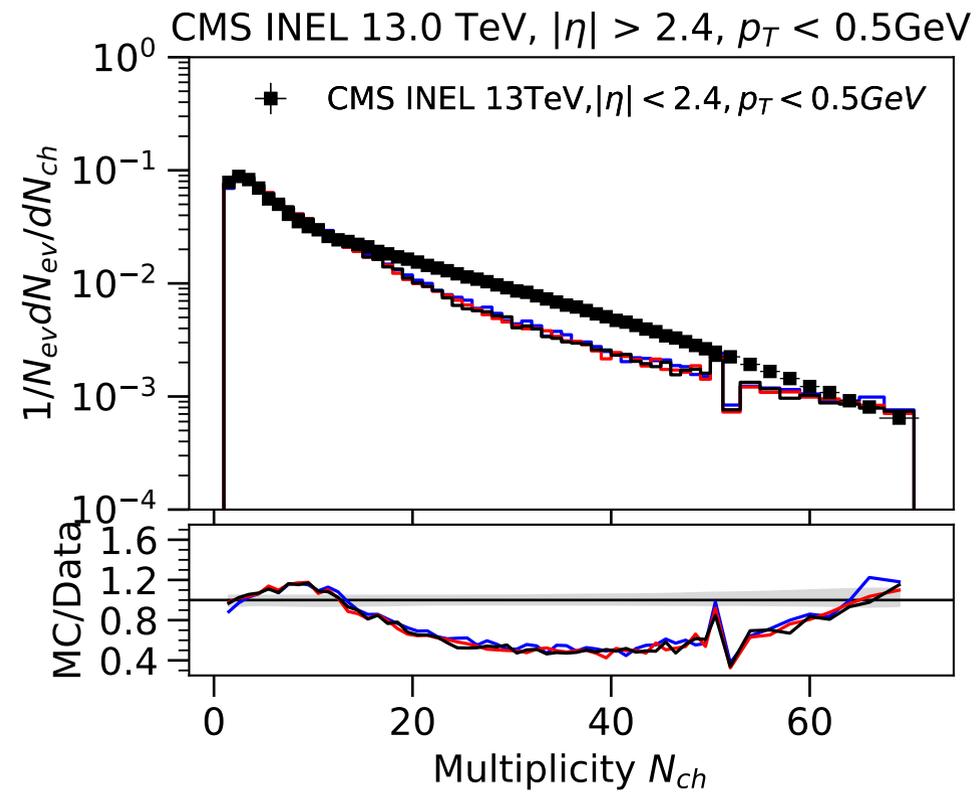
CMS 13 TeV - Pseudorapidity Distribution



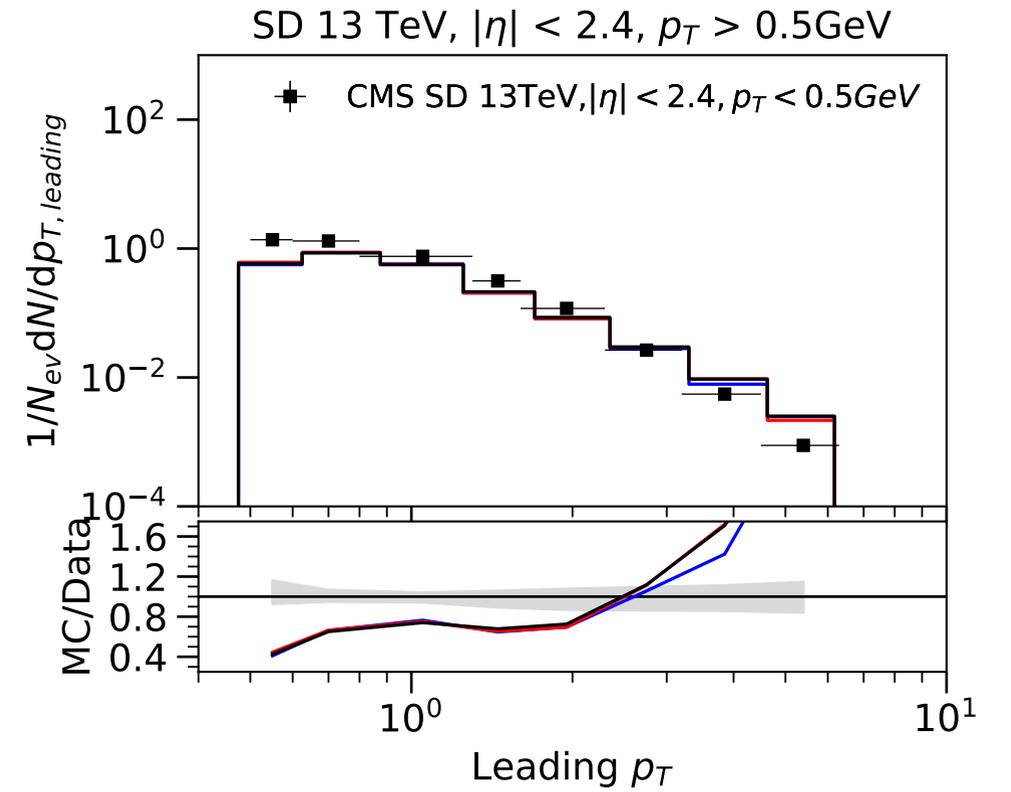
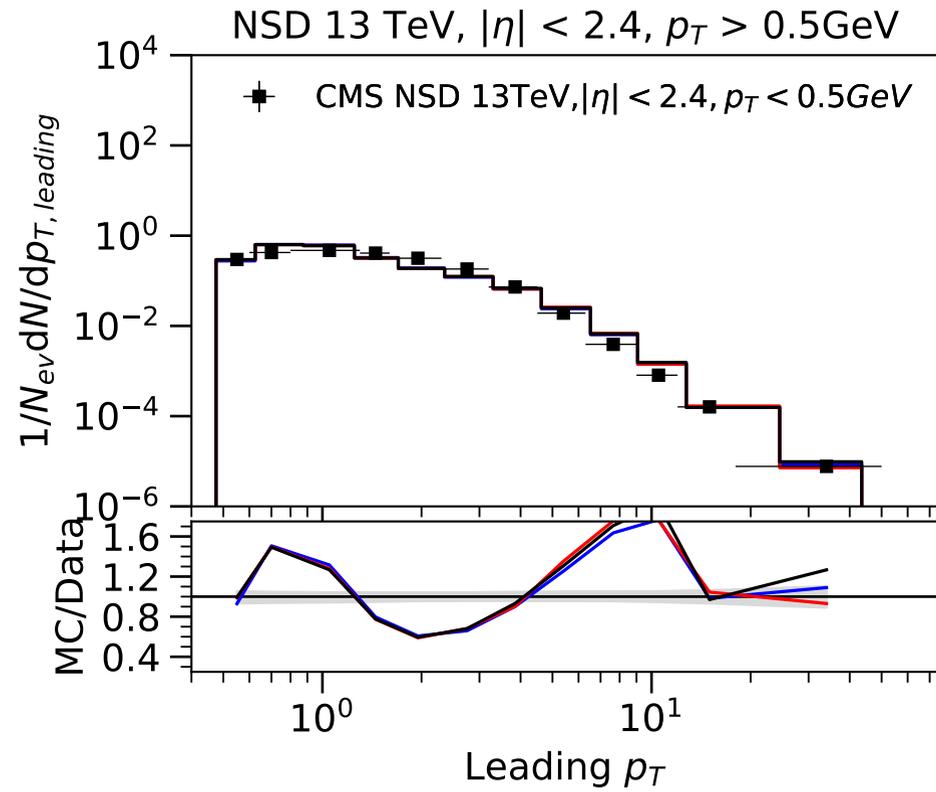
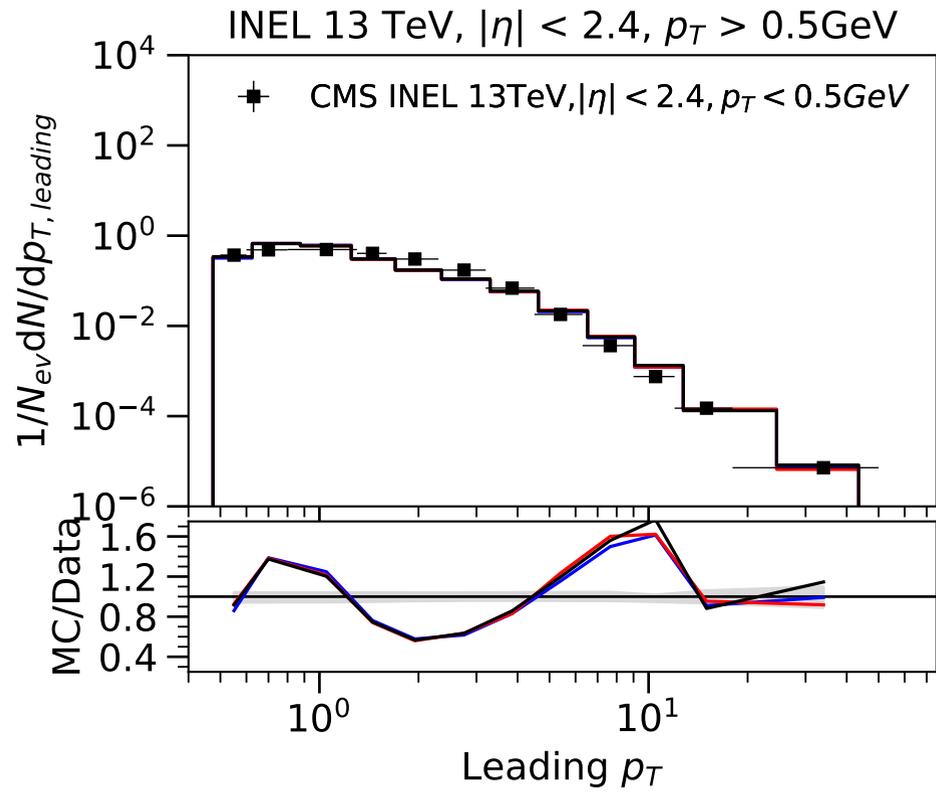
CMS 13 TeV - Transverse Momentum Distribution



CMS 13 TeV - Multiplicity Distribution

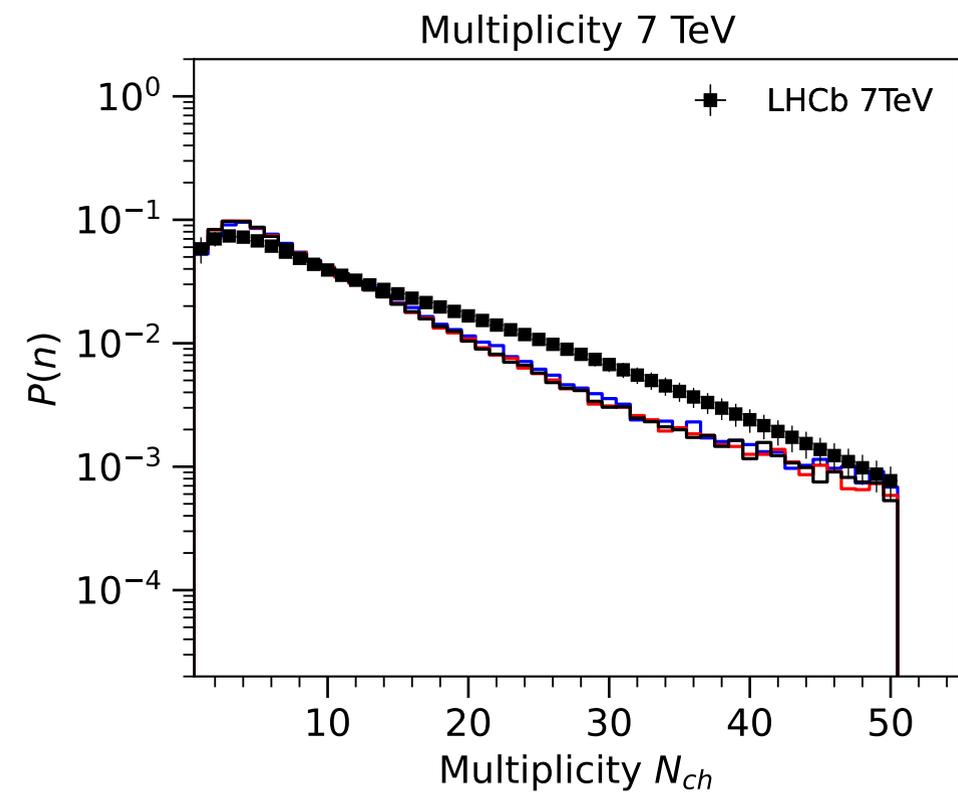
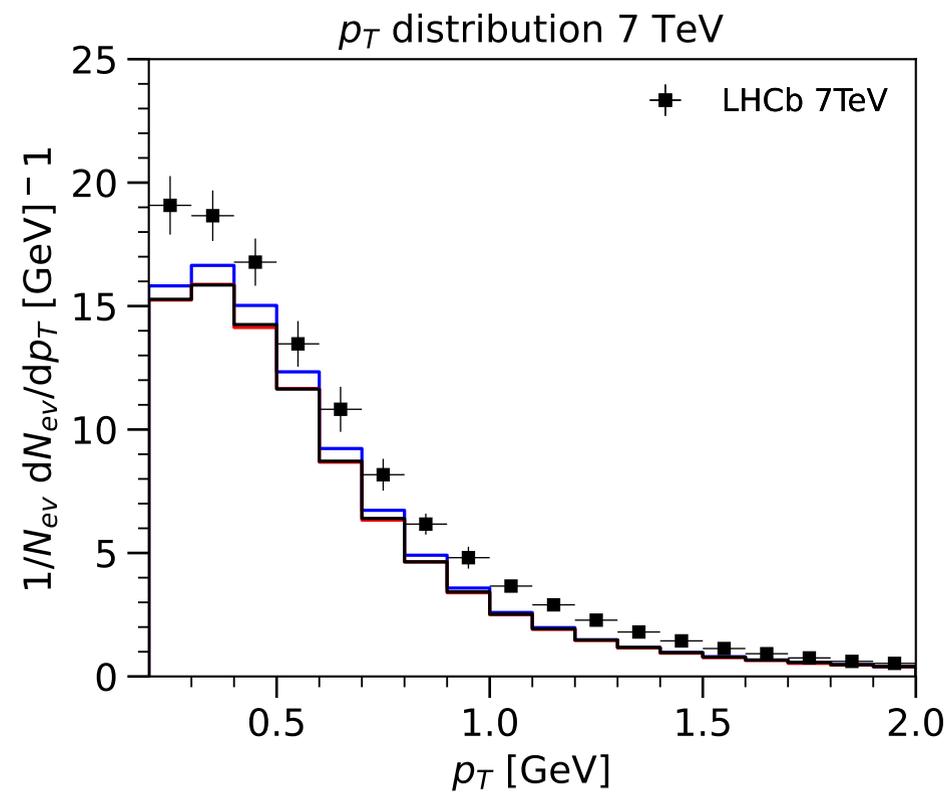
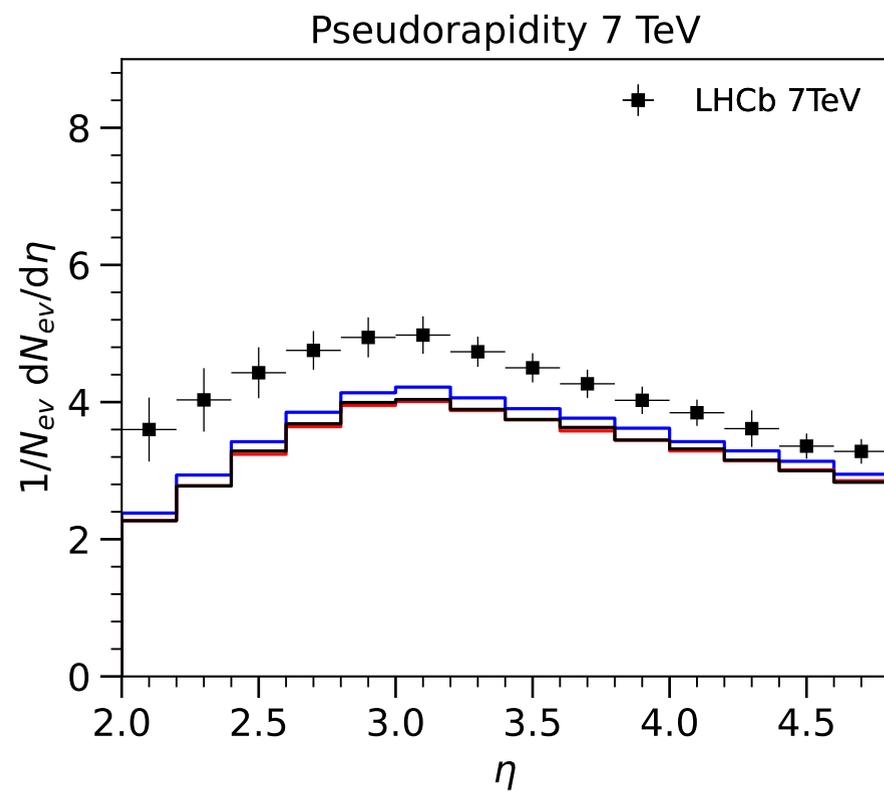


CMS 13 TeV - Leading p_T Distribution

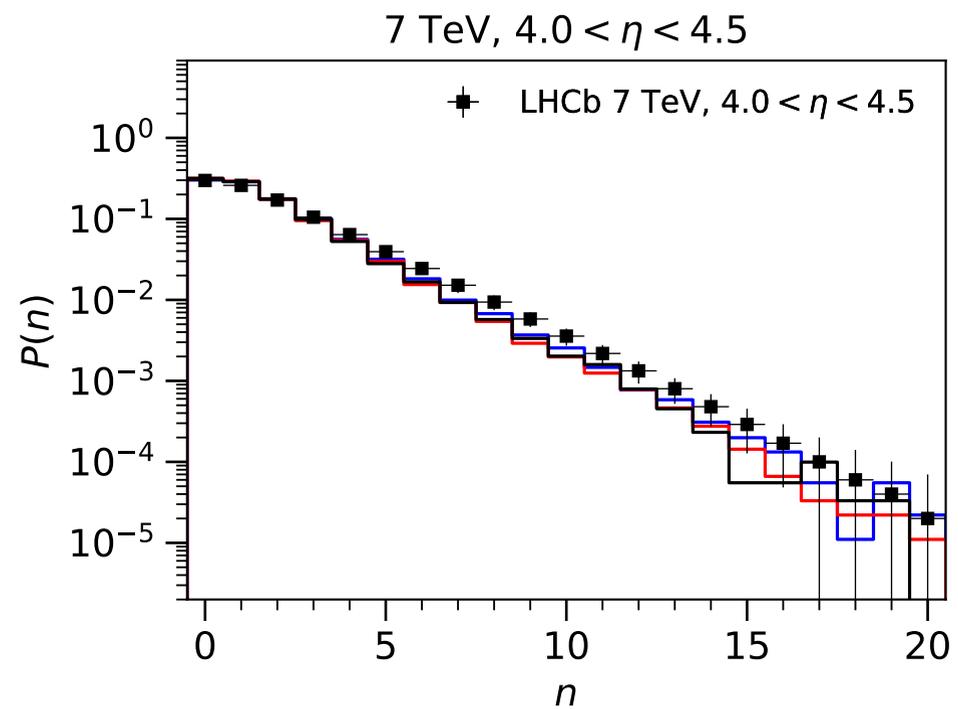
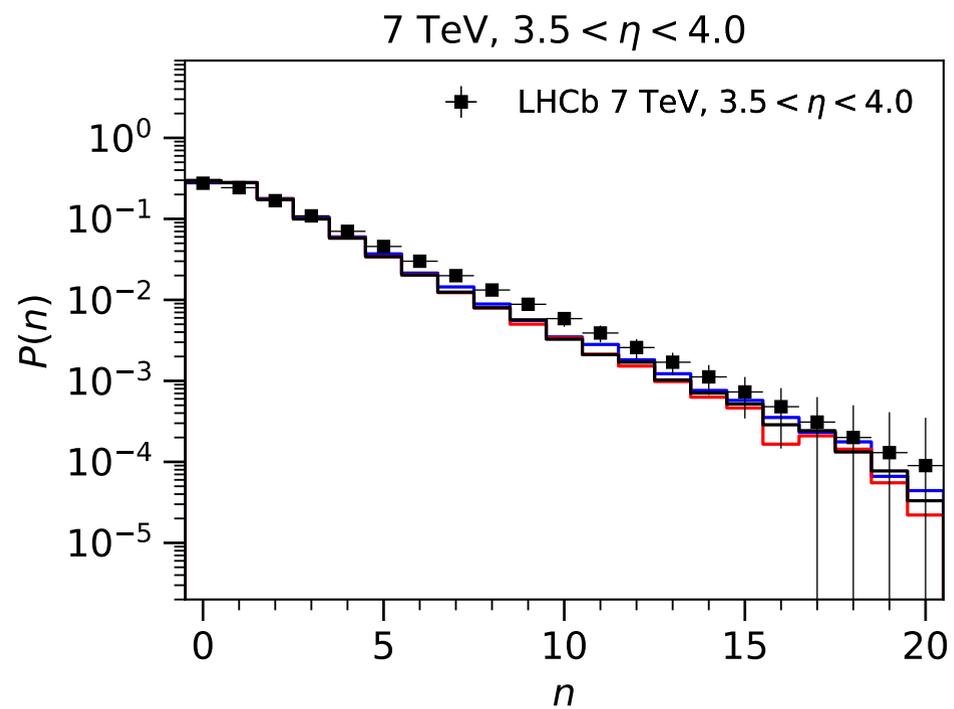
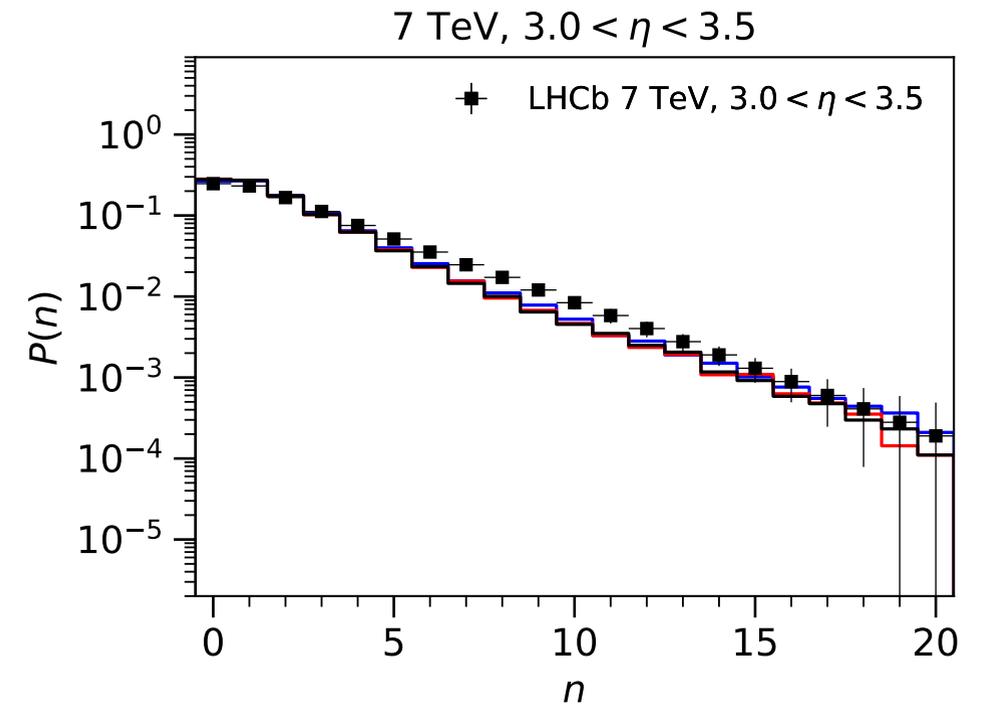
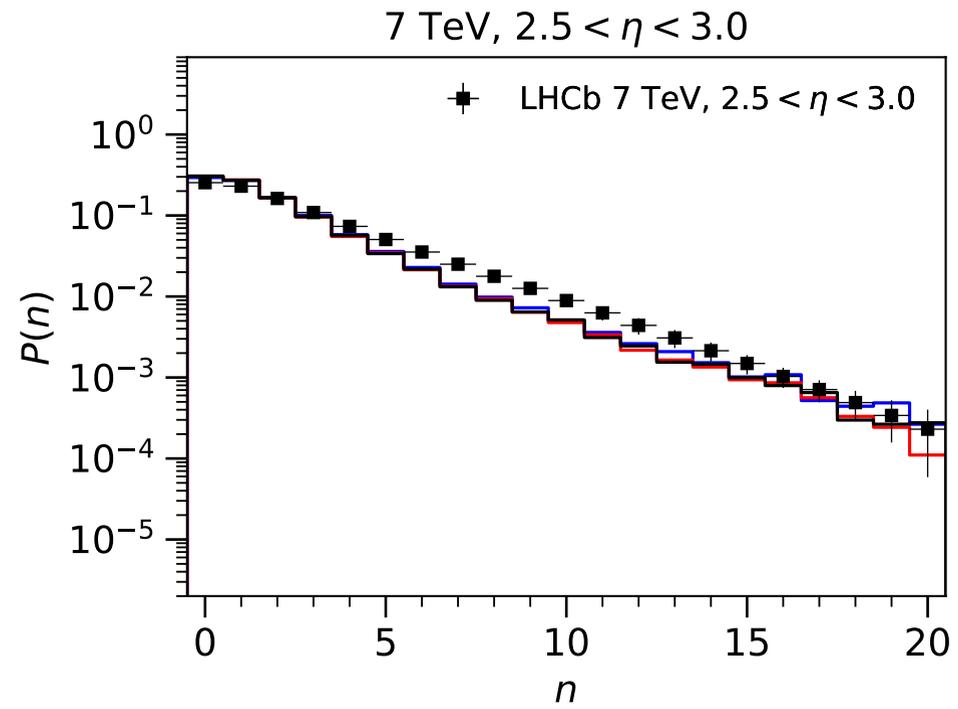
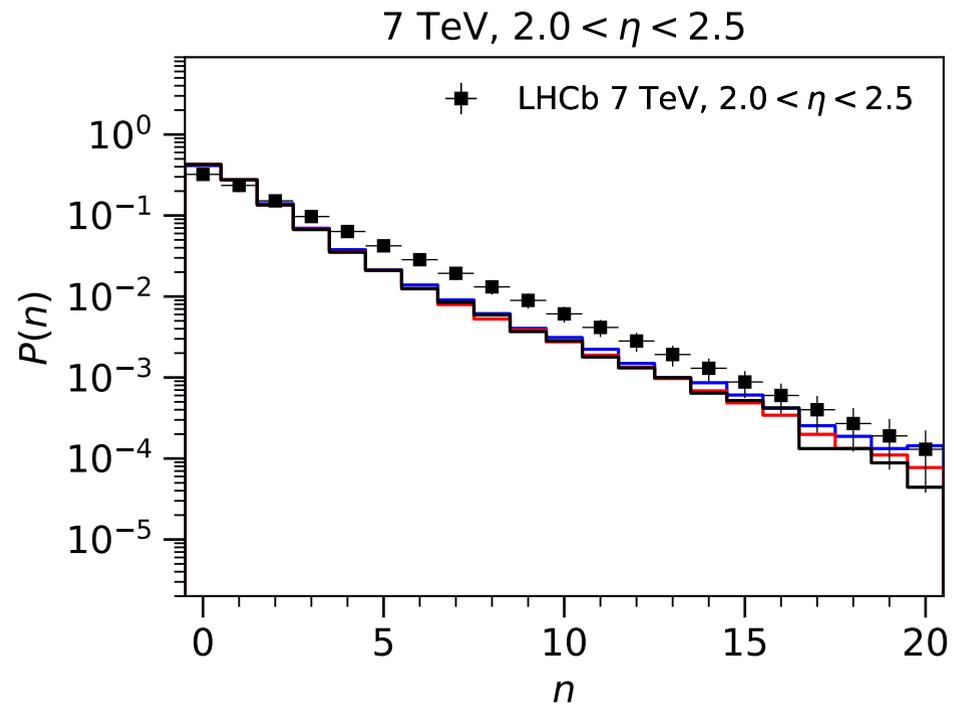


LHC: LHCb Minimum Bias

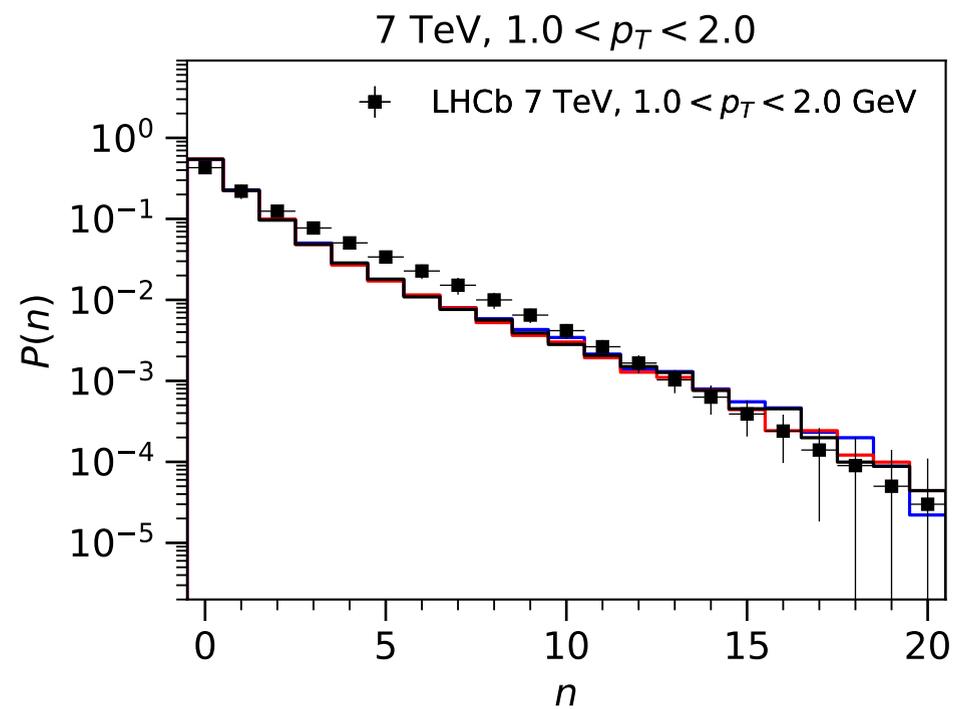
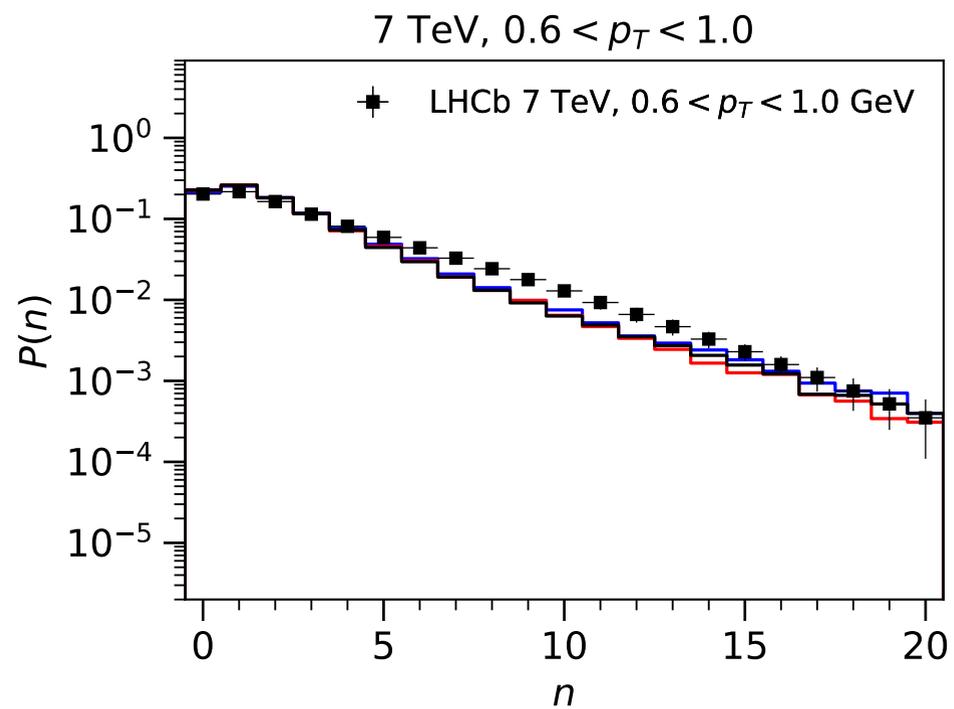
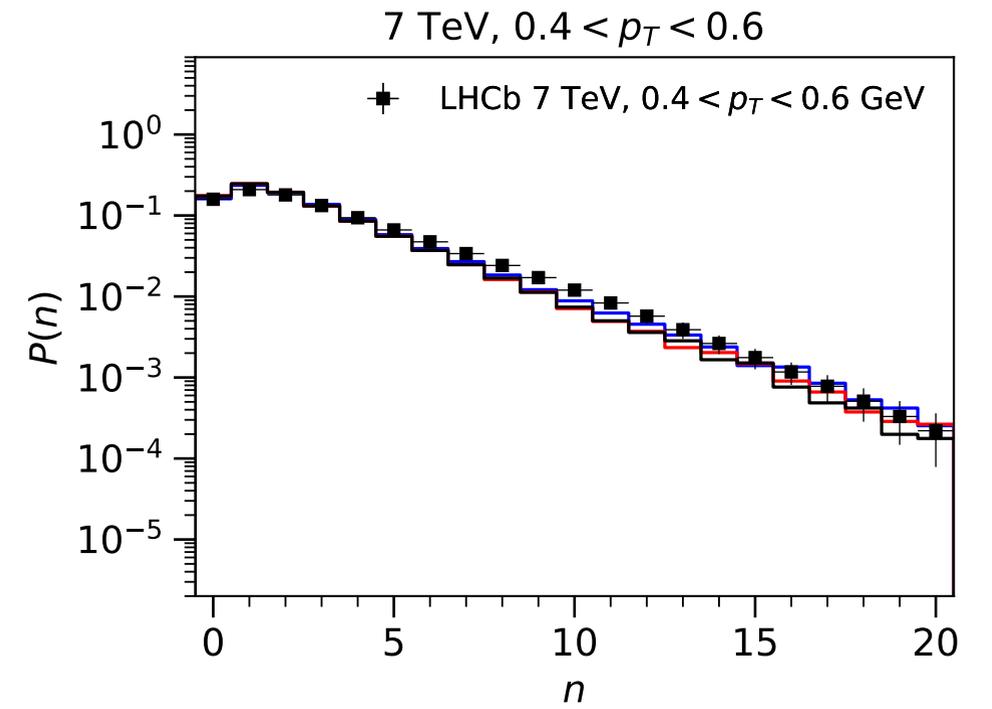
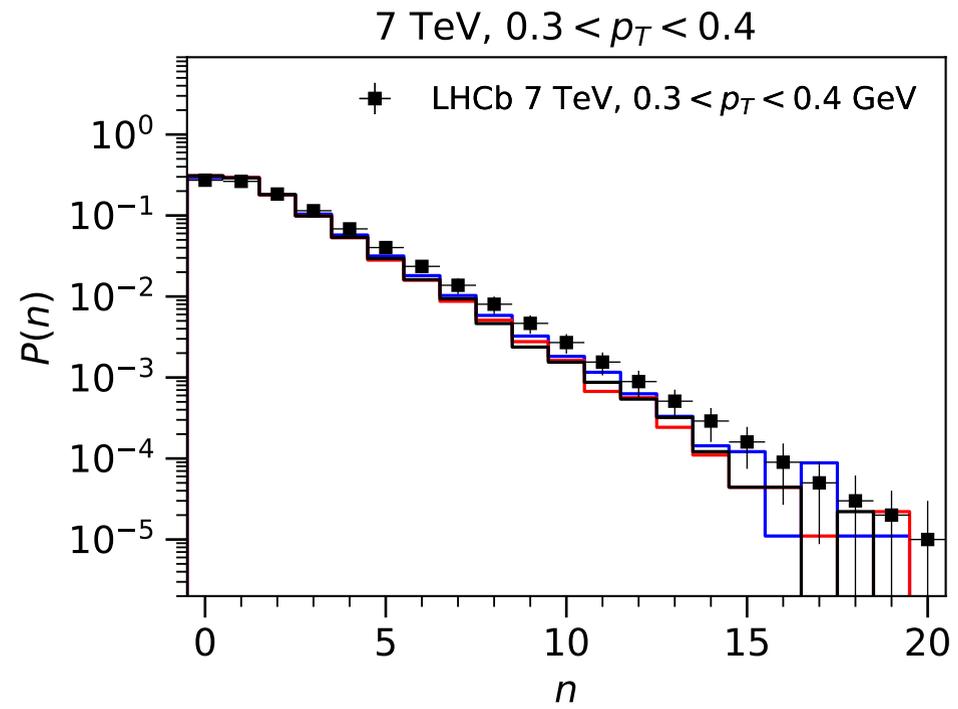
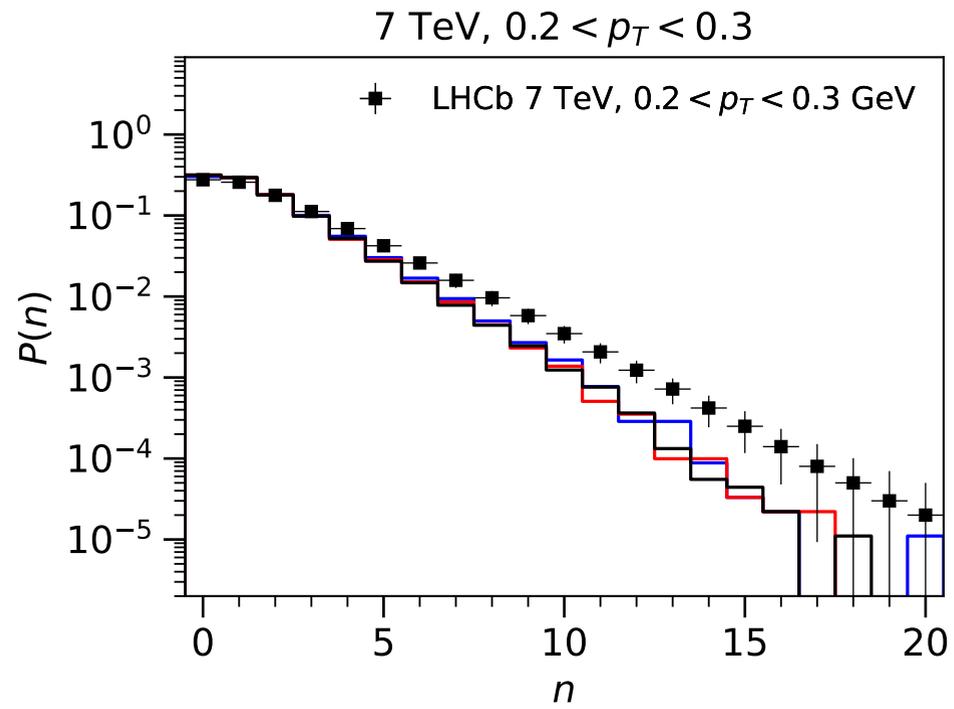
LHCb - inclusive charged particles in $2 < \eta < 4.8$ at 7 TeV



LHCb: Charged particle multiplicities in pp collisions at 7 TeV

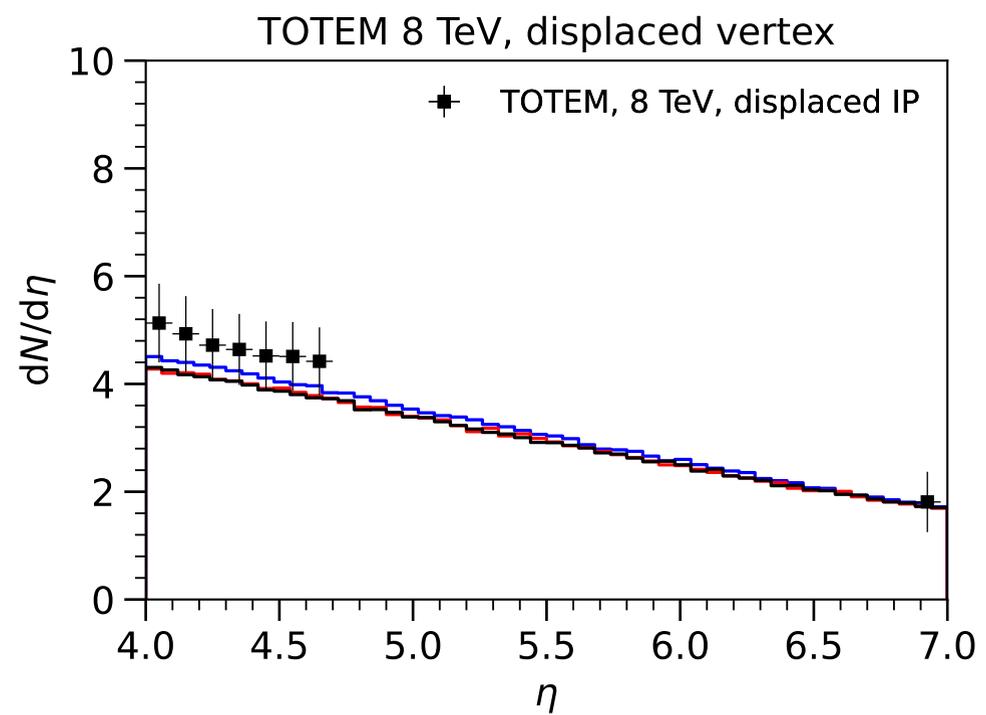
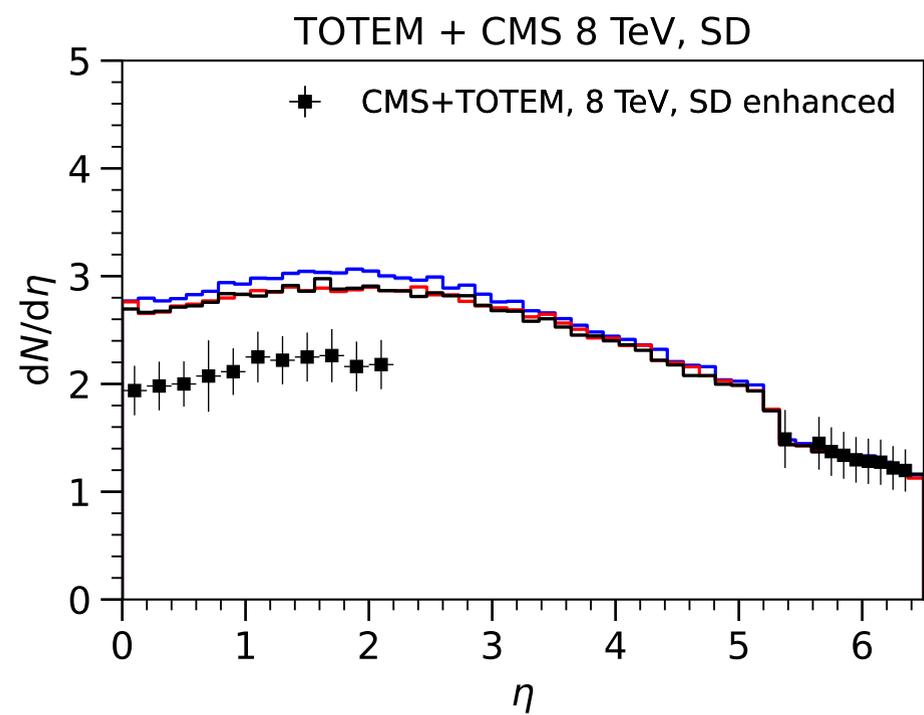
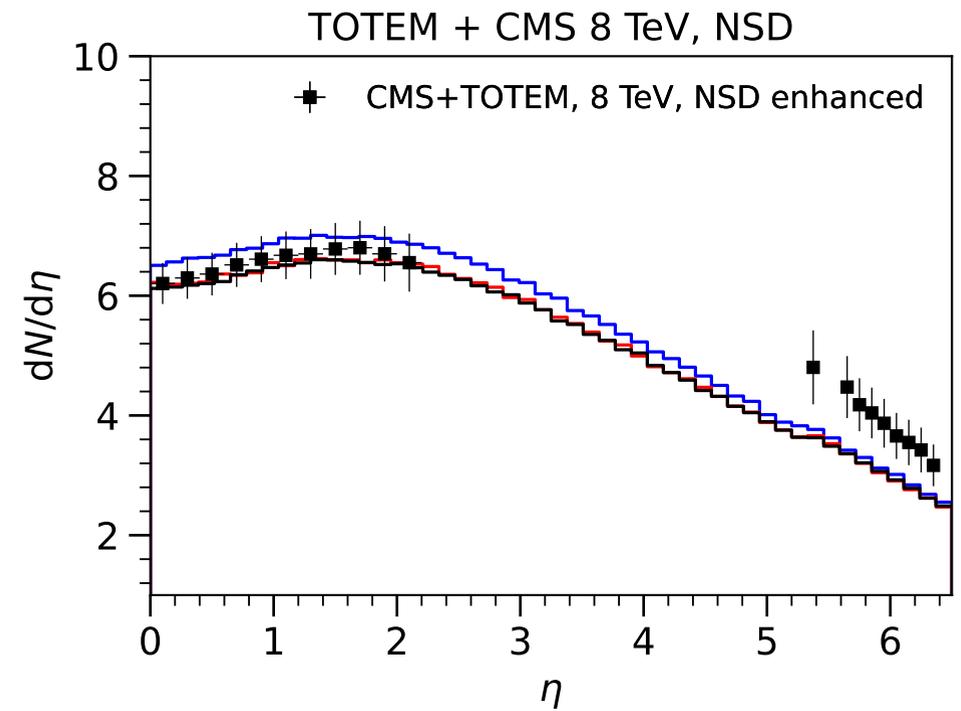
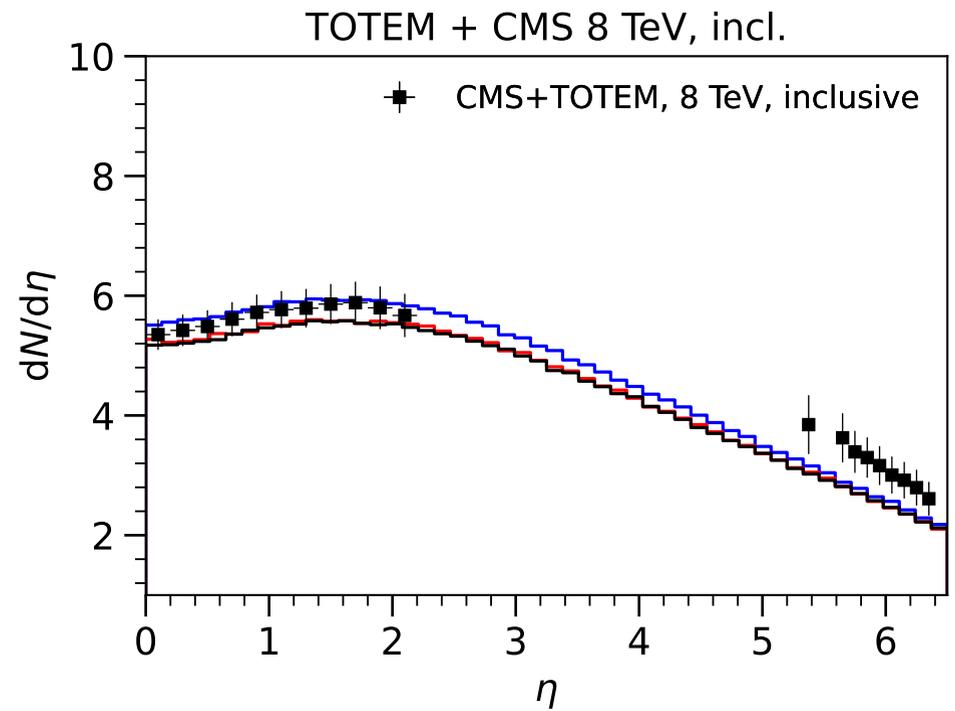
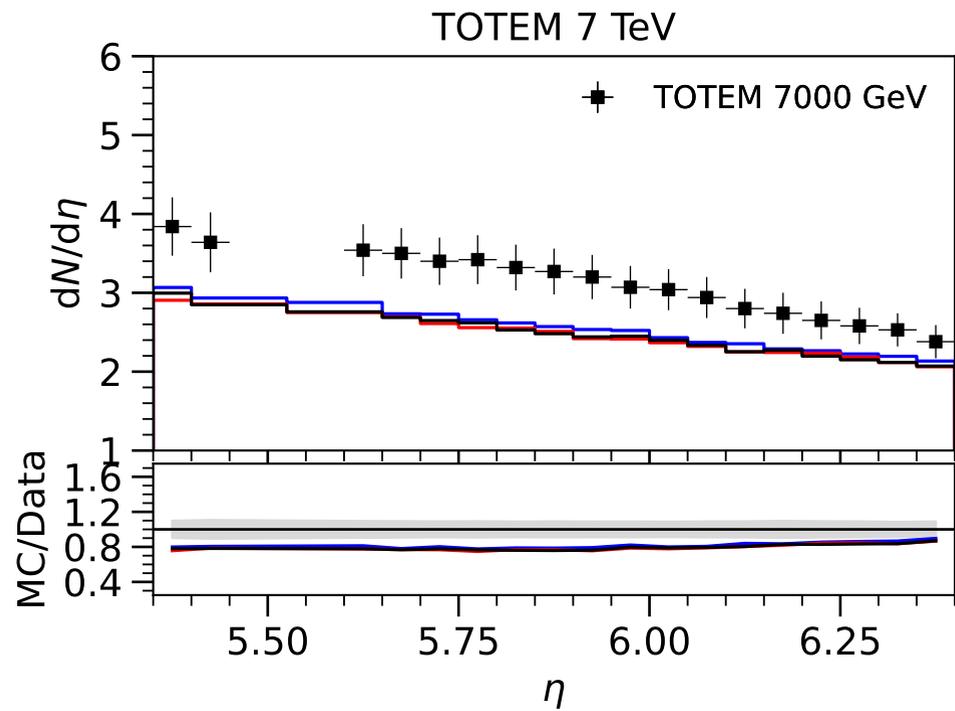


LHCb: Charged particle multiplicities in pp collisions at 7 TeV

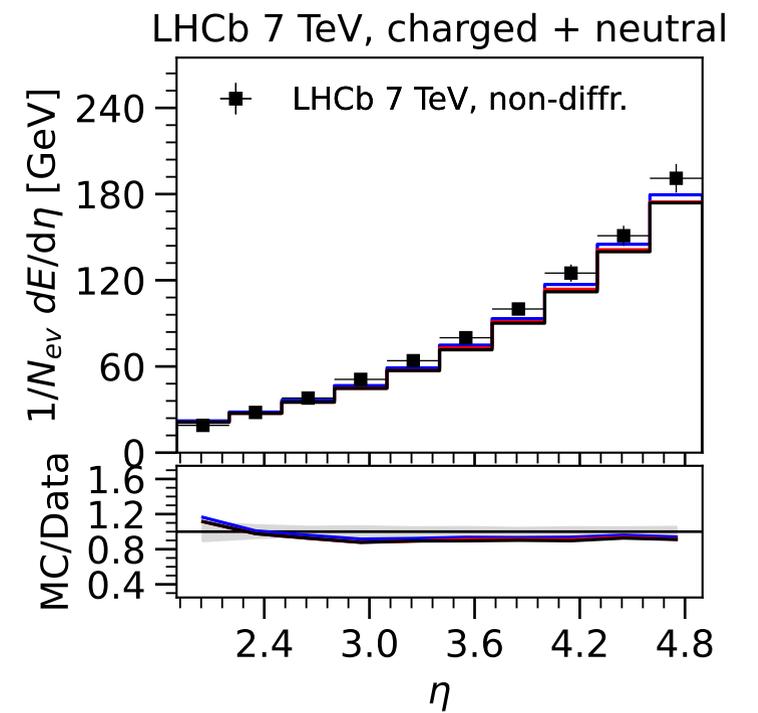
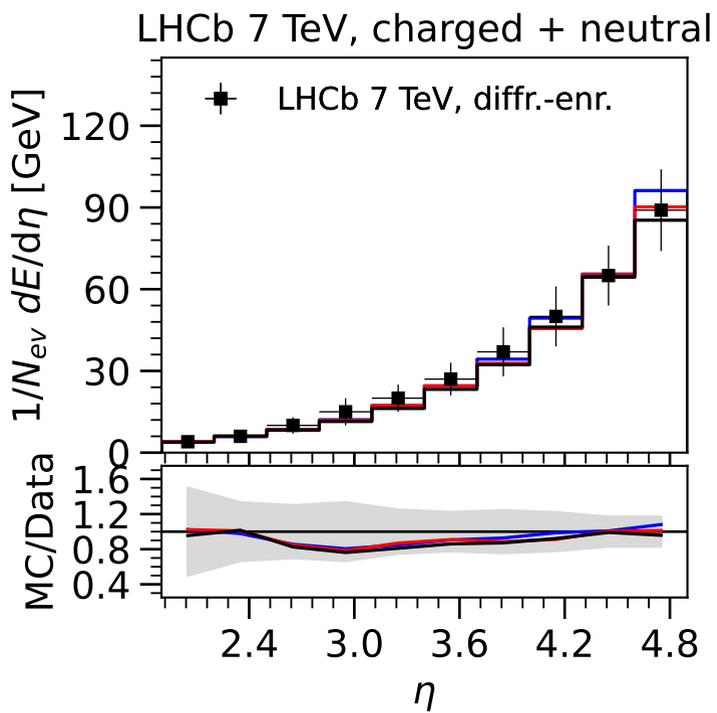
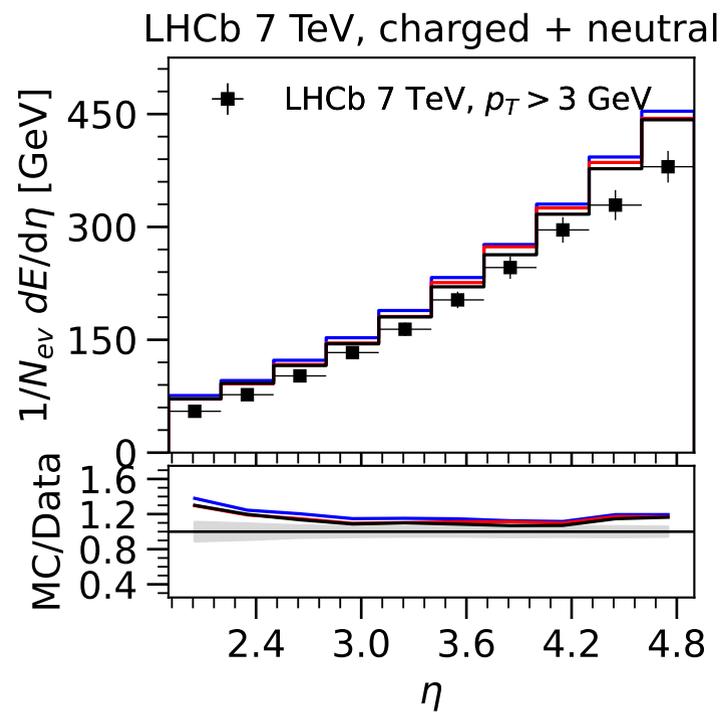
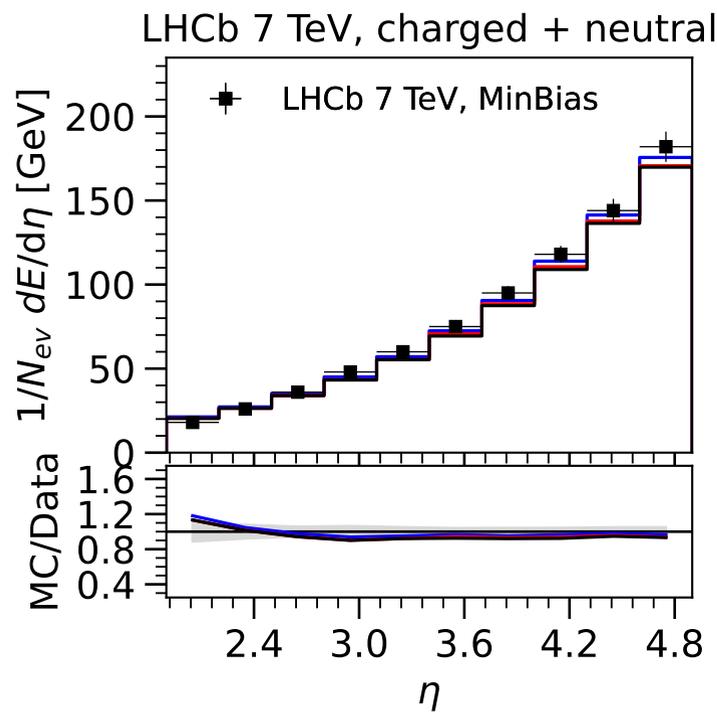
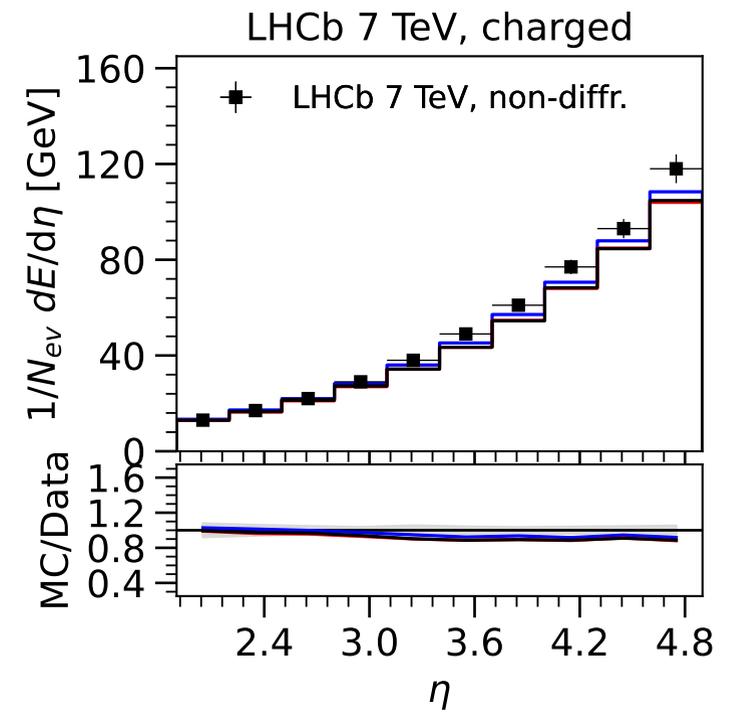
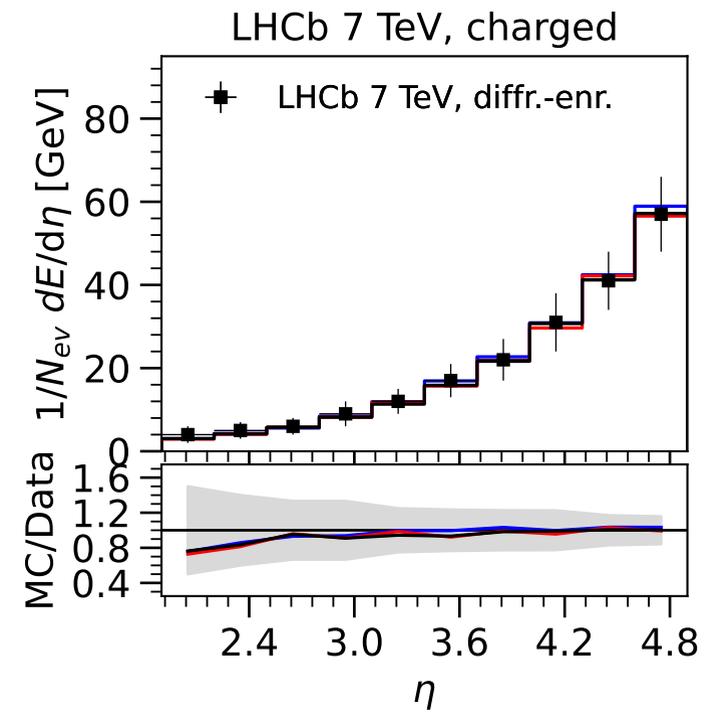
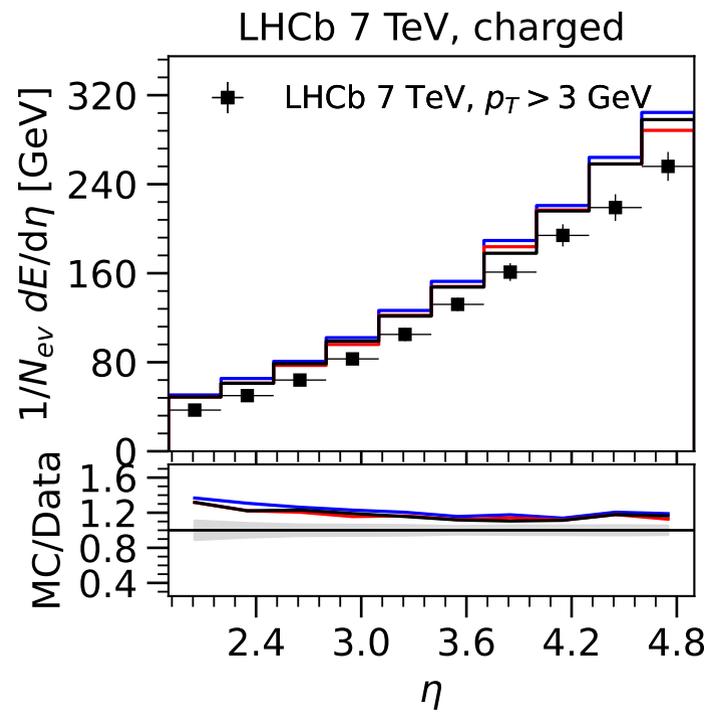
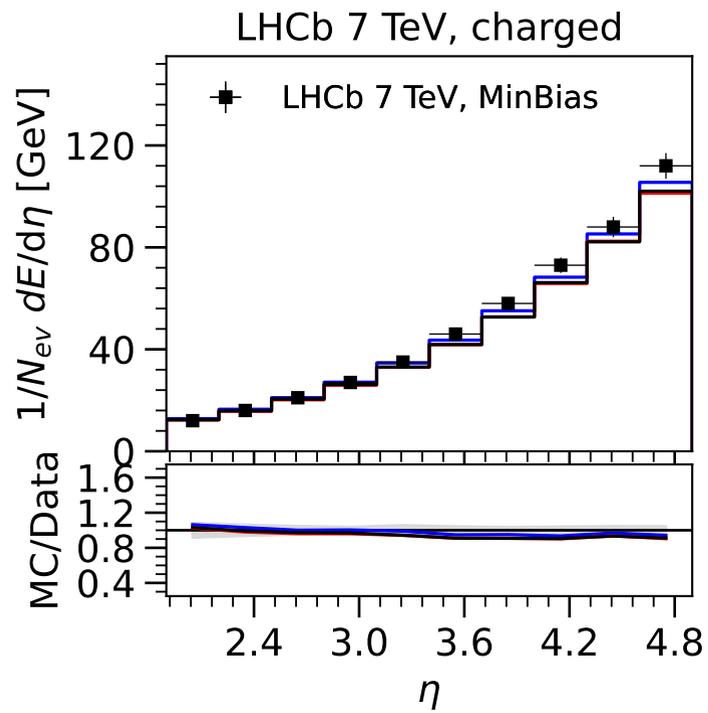


LHC: Forward physics

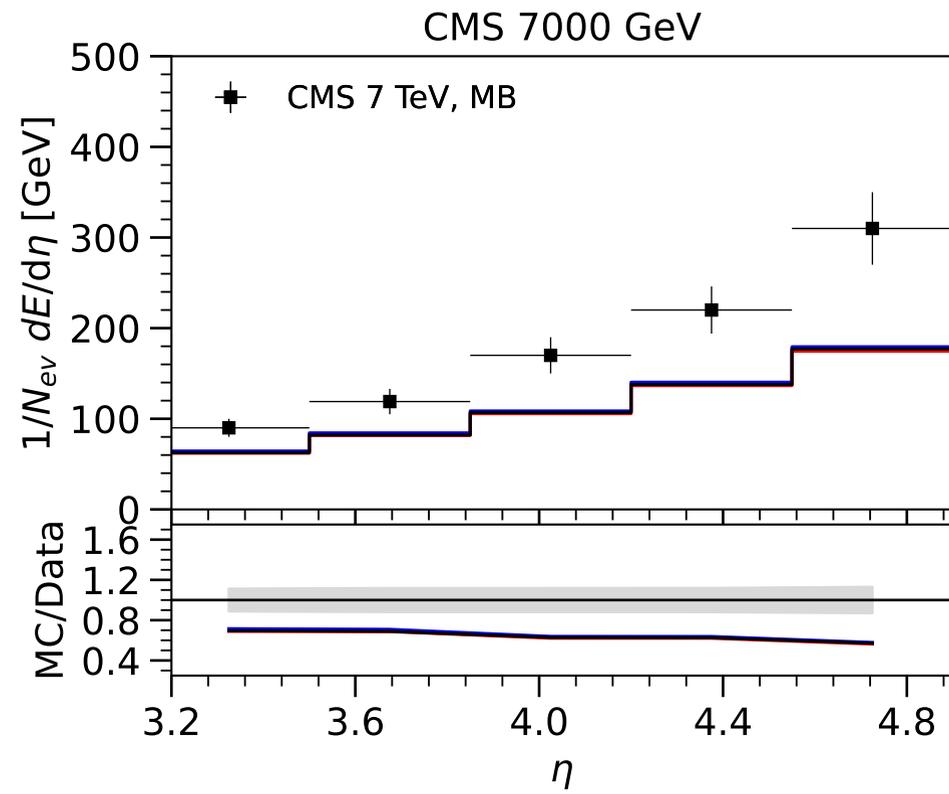
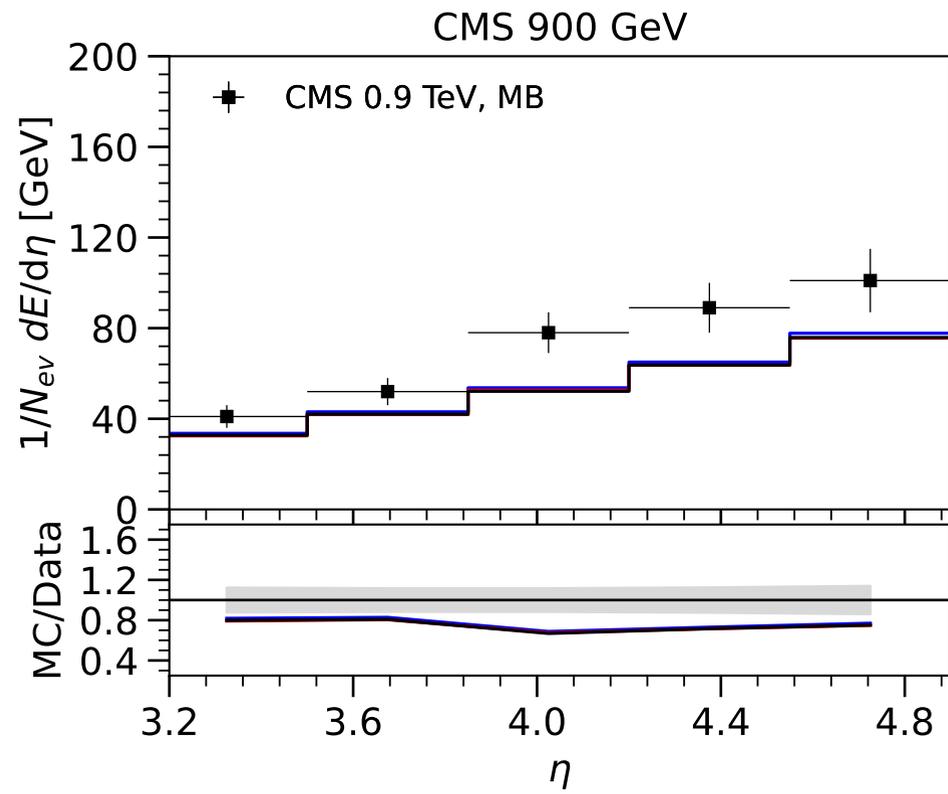
TOTEM - η distribution.



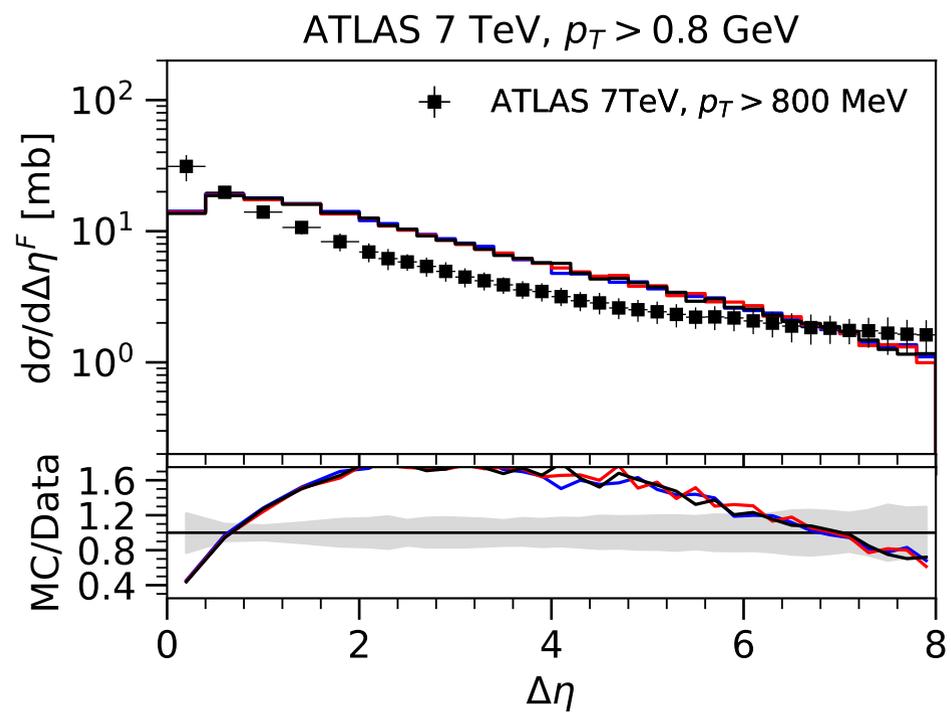
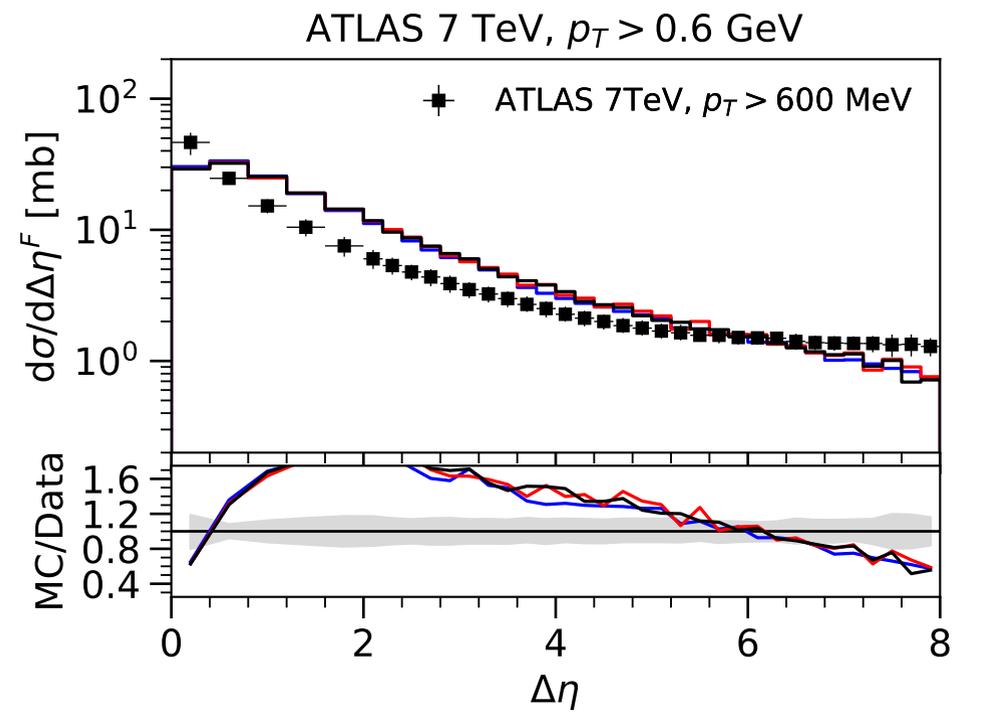
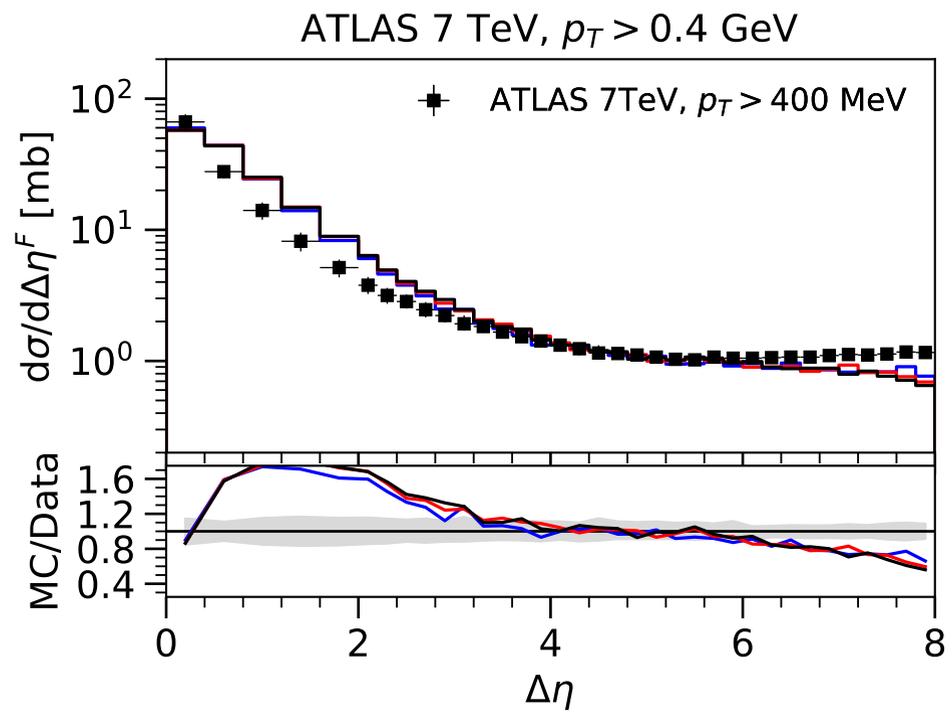
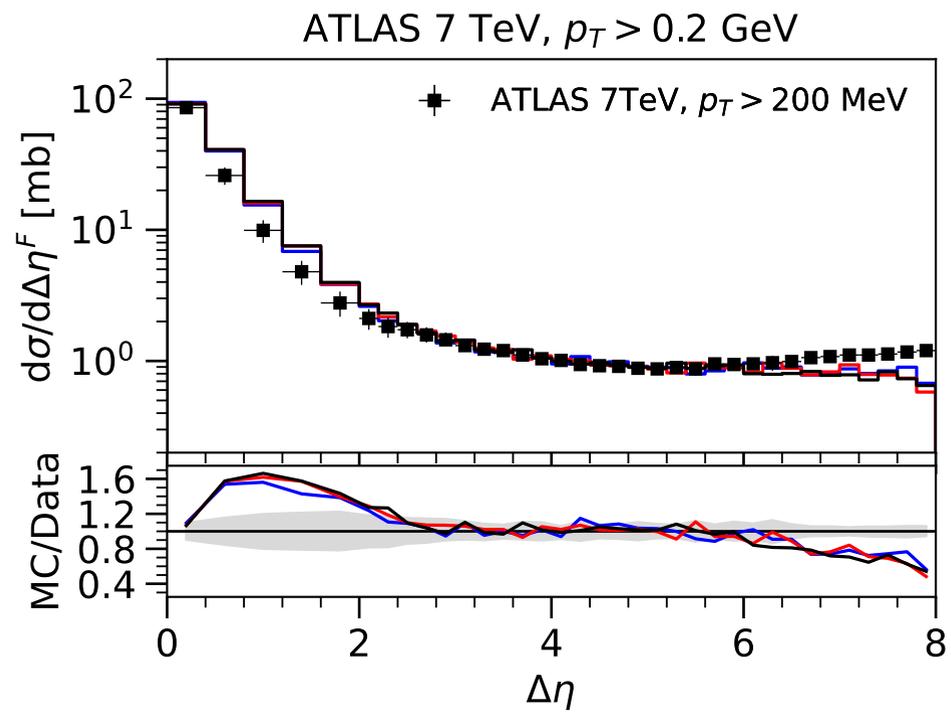
LHCb - Forward energy flow.



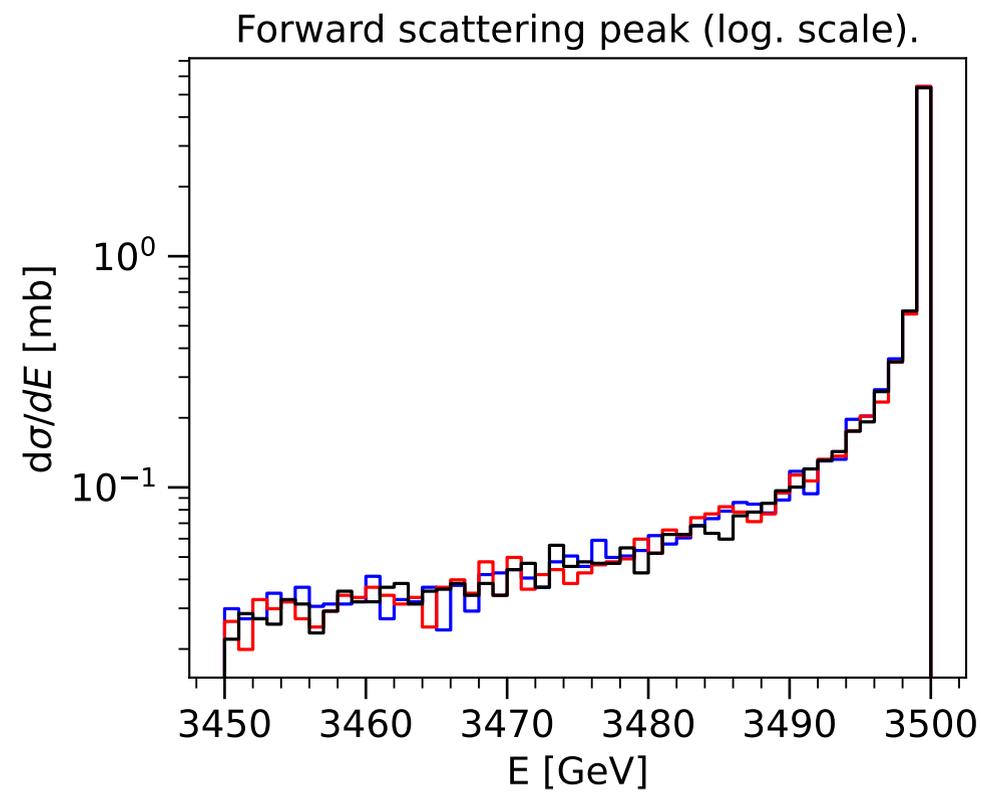
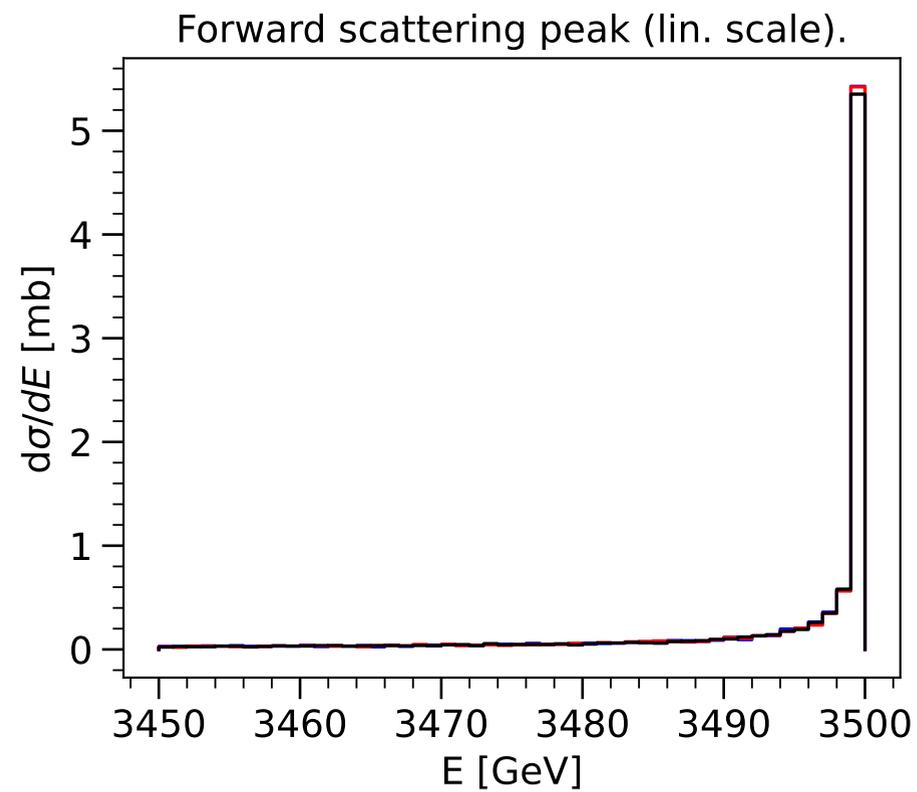
CMS - Forward energy flow.



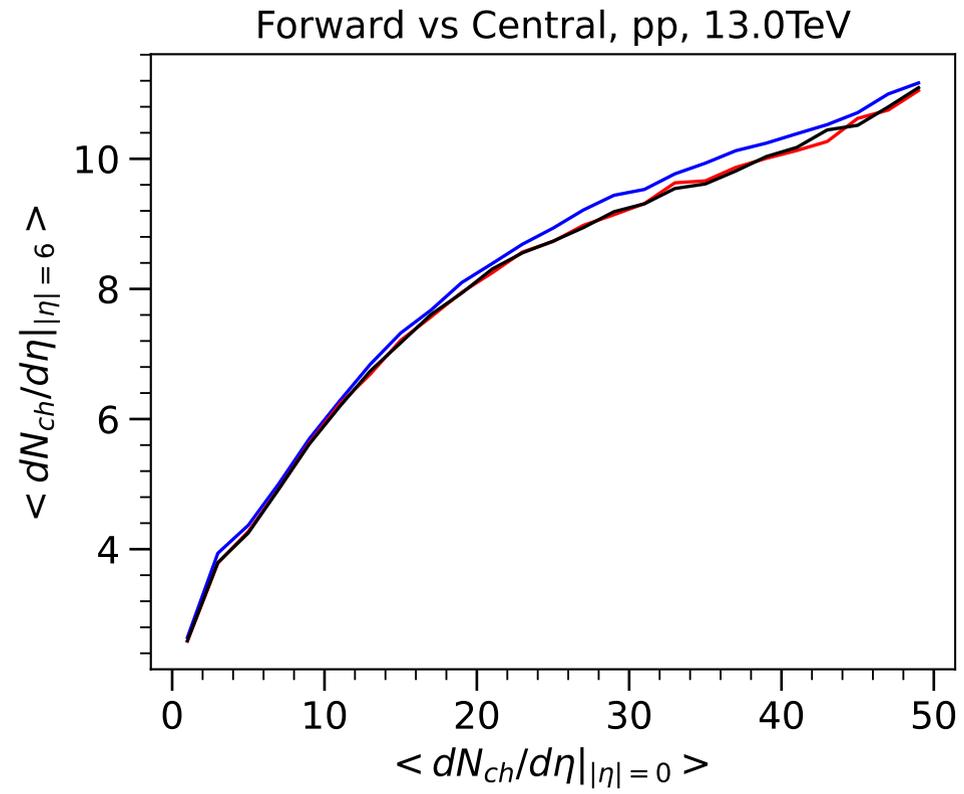
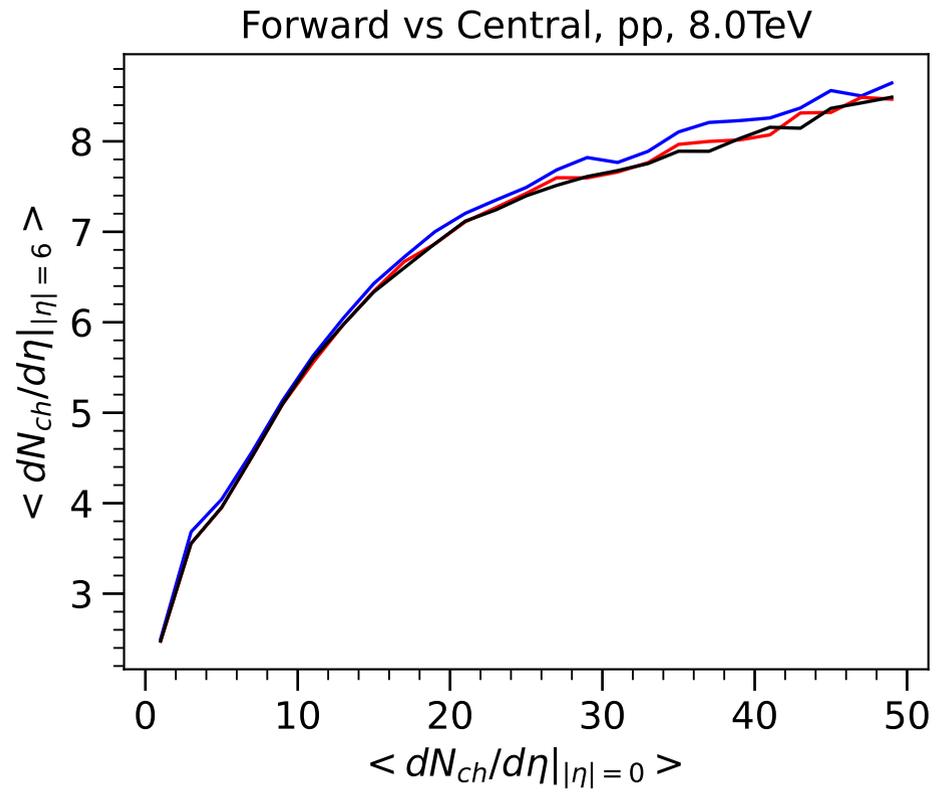
ATLAS - Rapidity gaps at 7 TeV



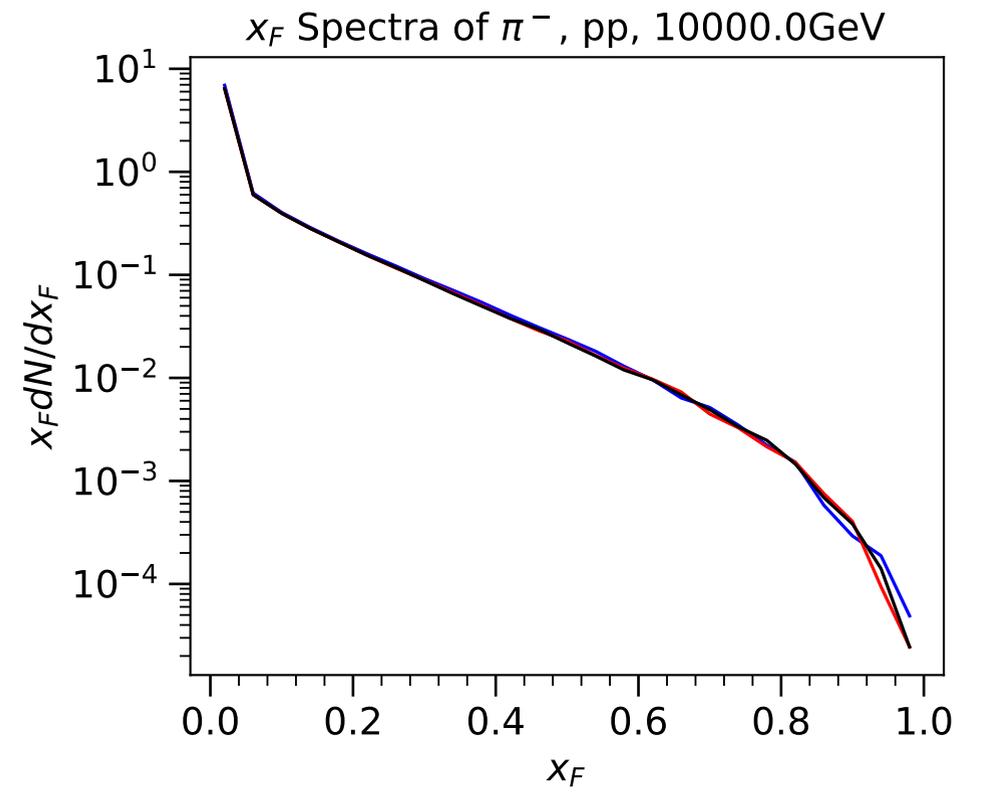
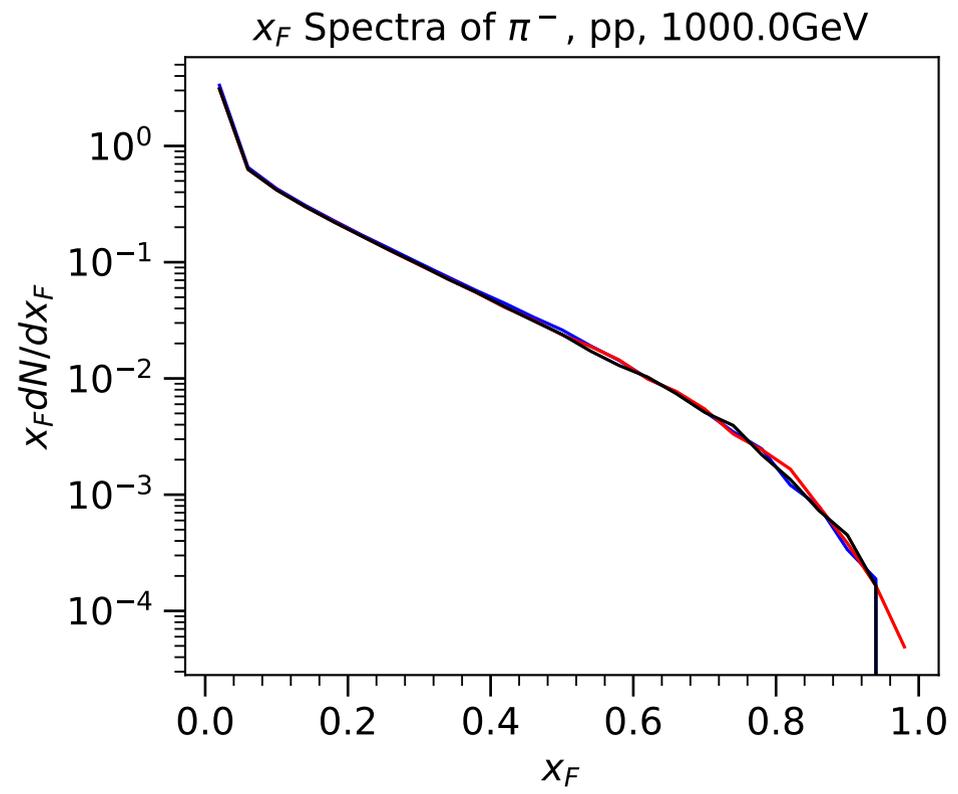
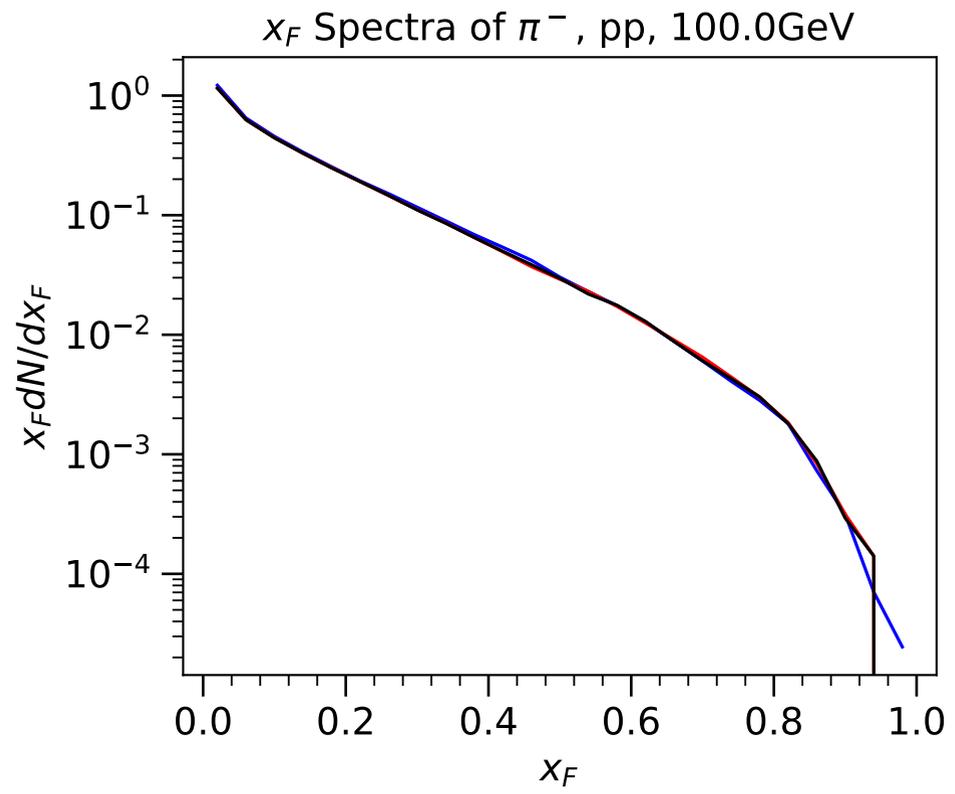
Diffraction peak



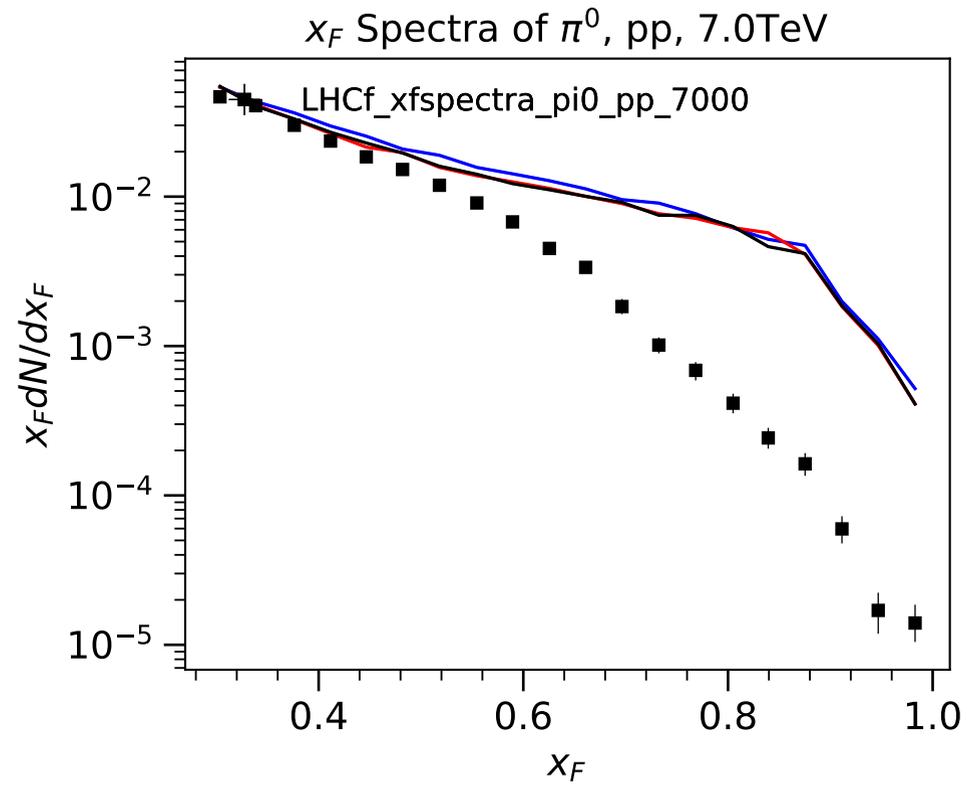
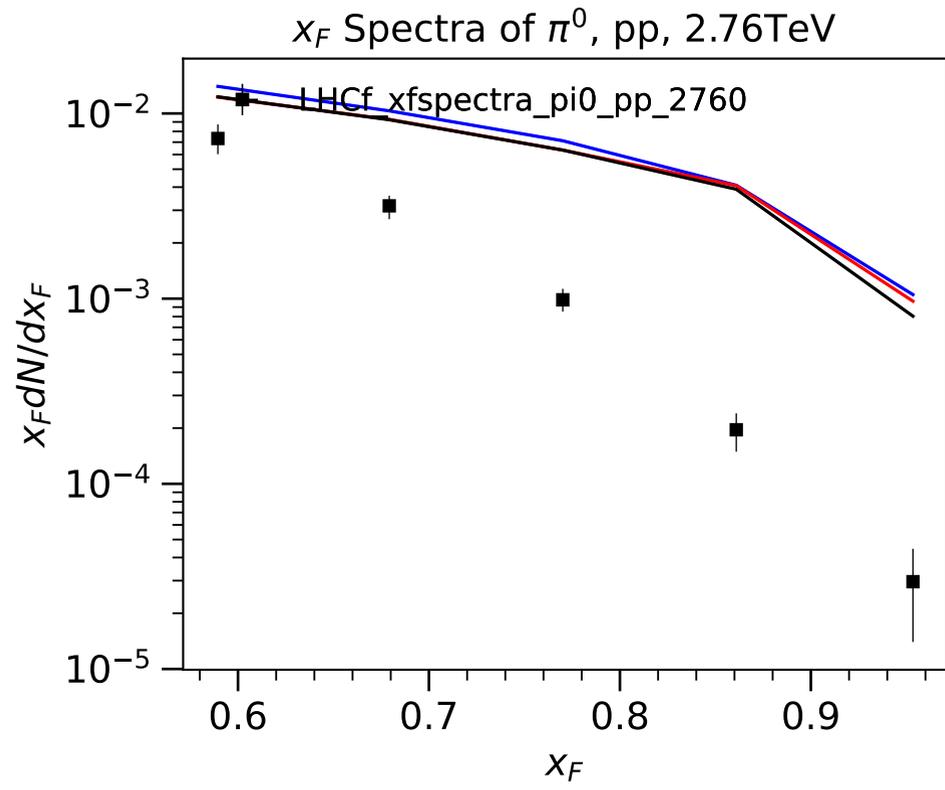
Forward Multiplicity ($|\eta| = 6$) as a function of Central Multiplicity ($|\eta| = 0$)



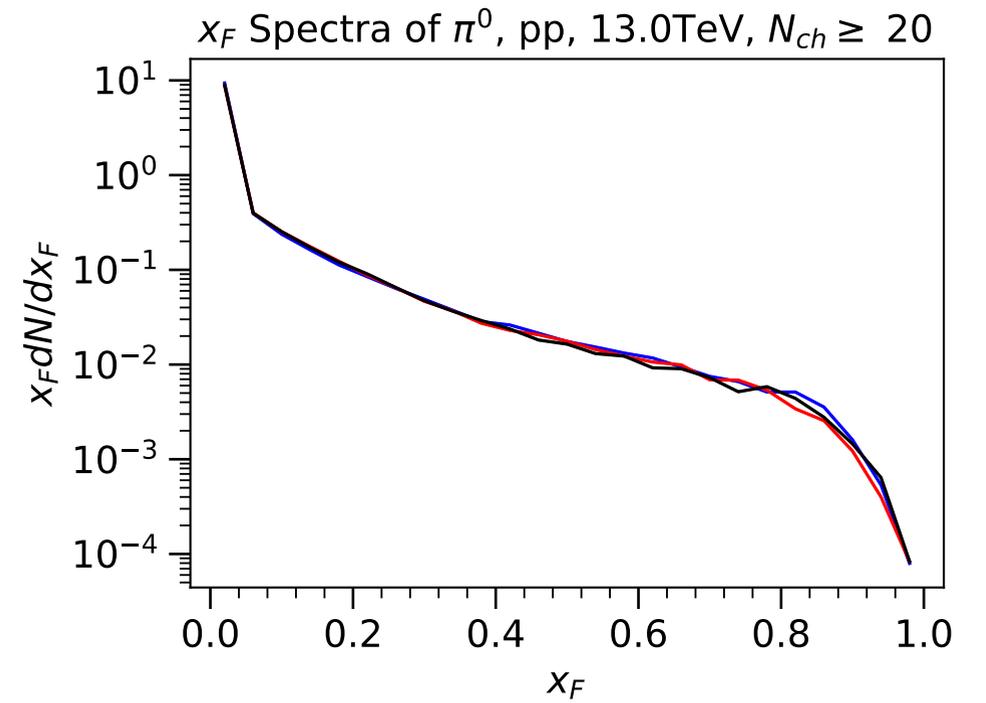
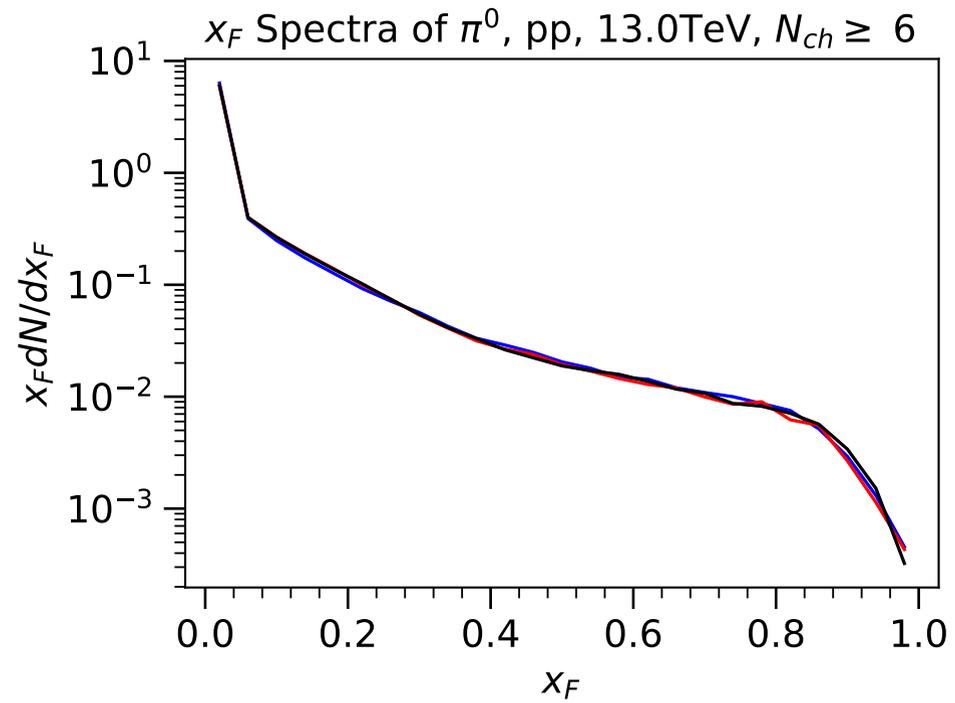
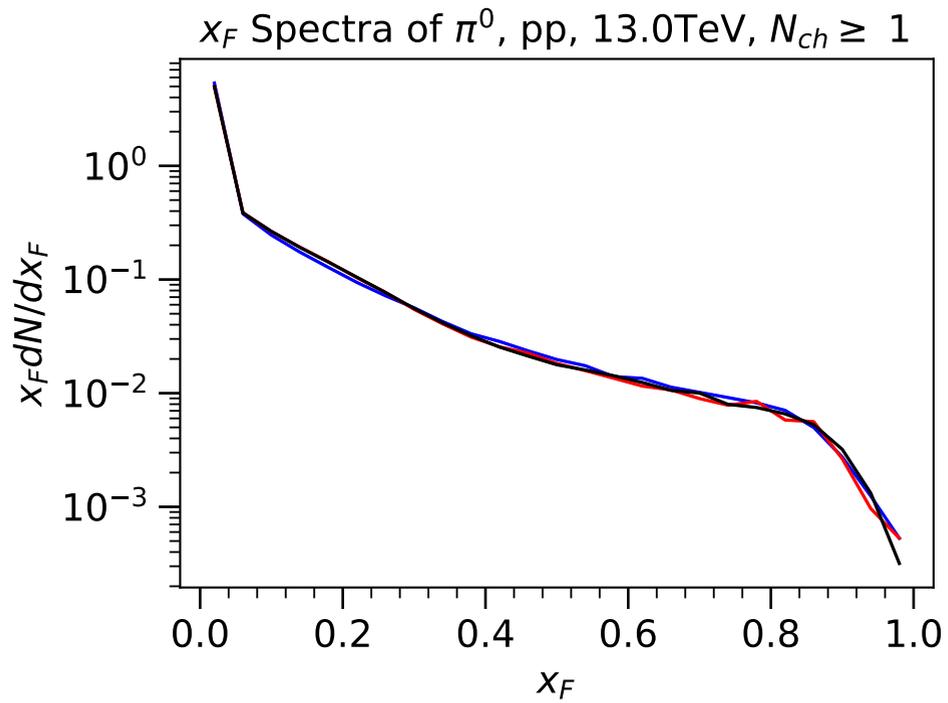
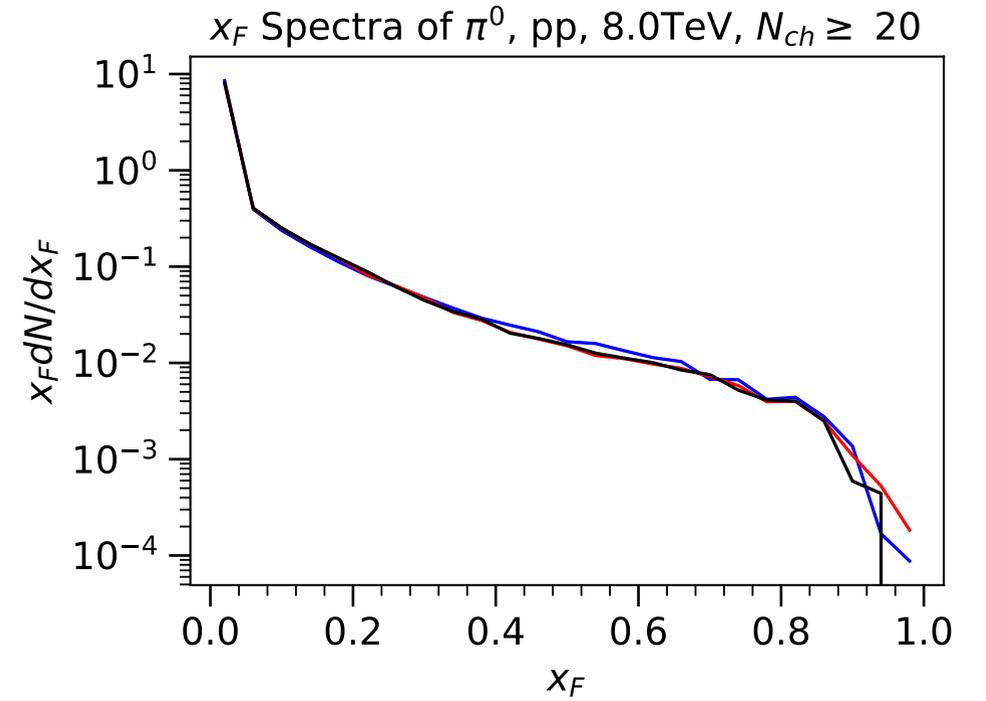
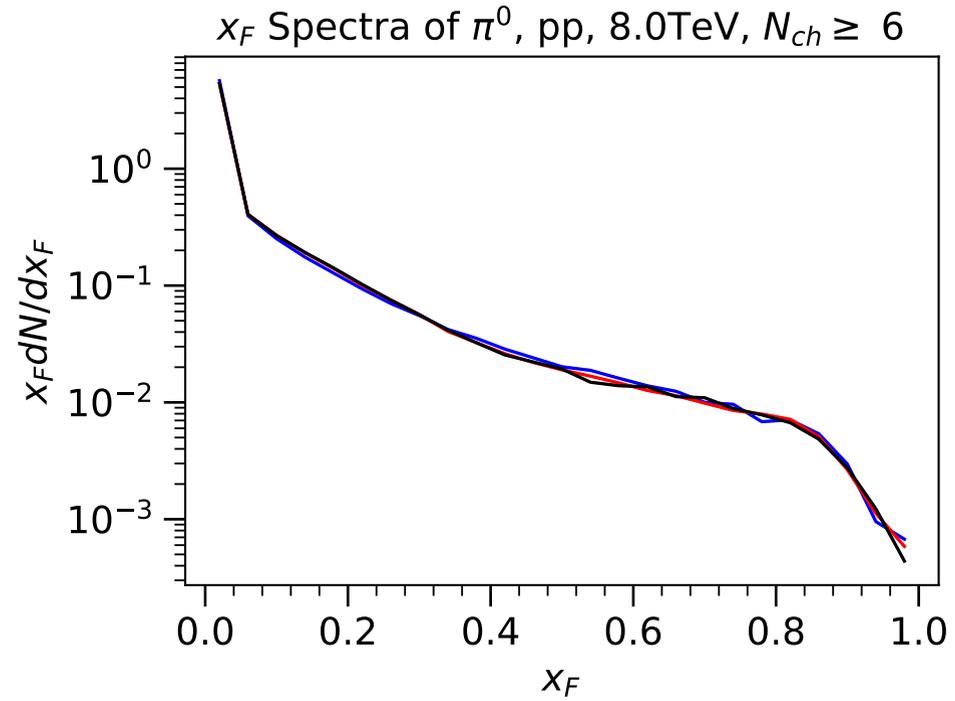
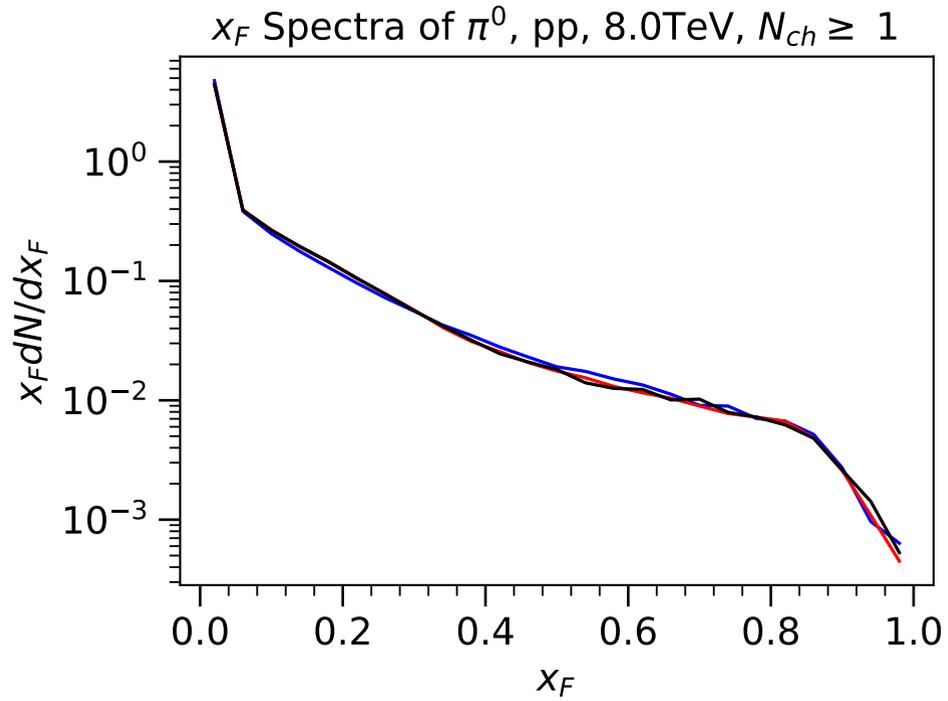
x_F Spectra of π^- in pp Collisions



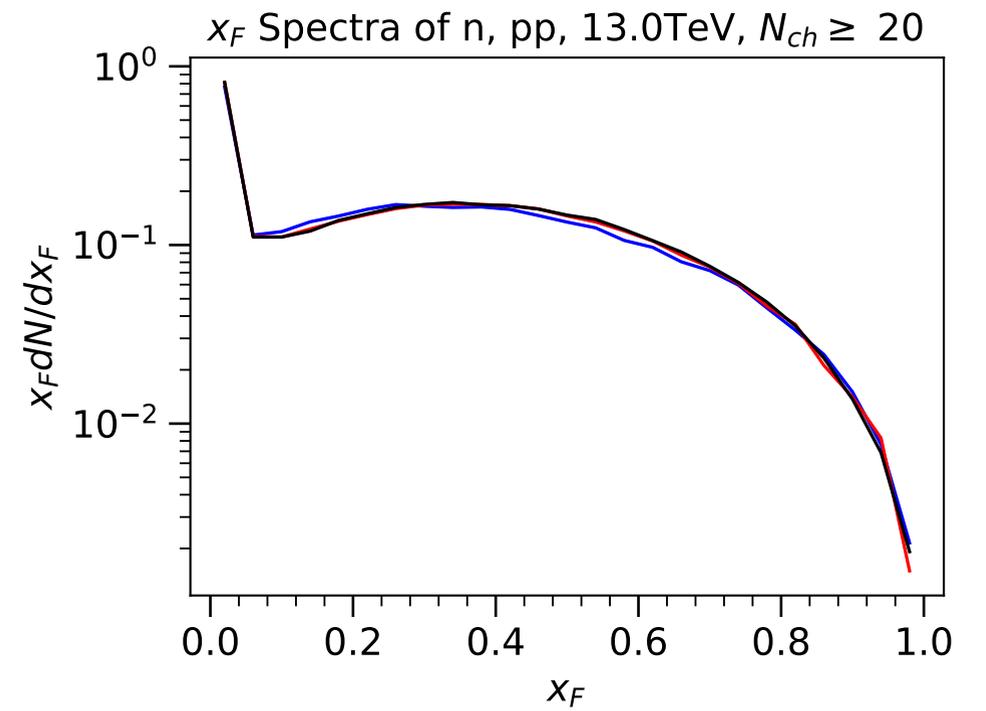
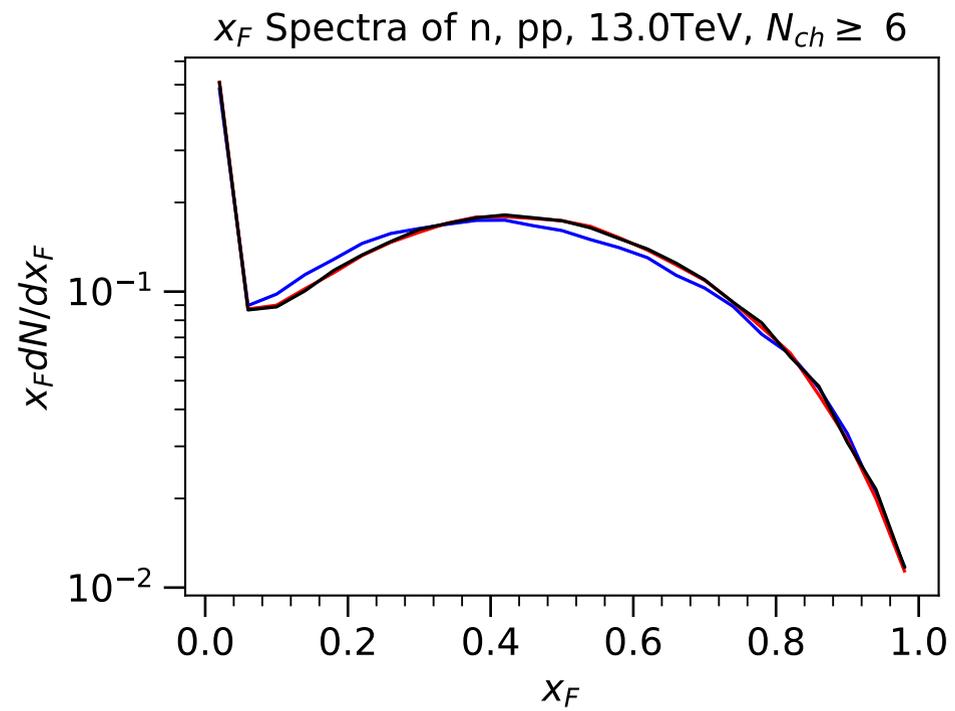
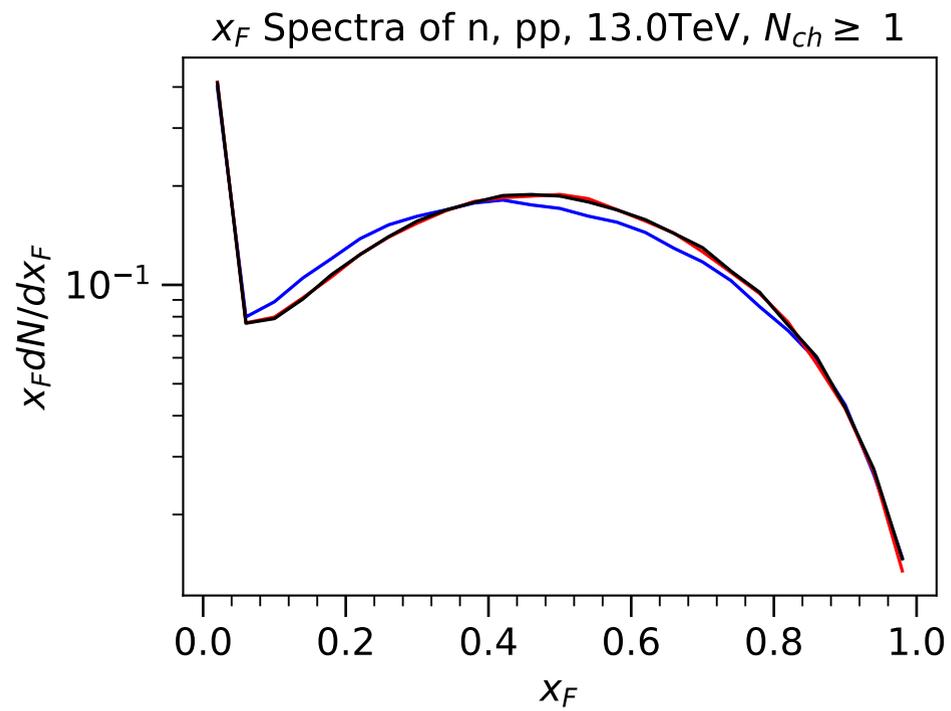
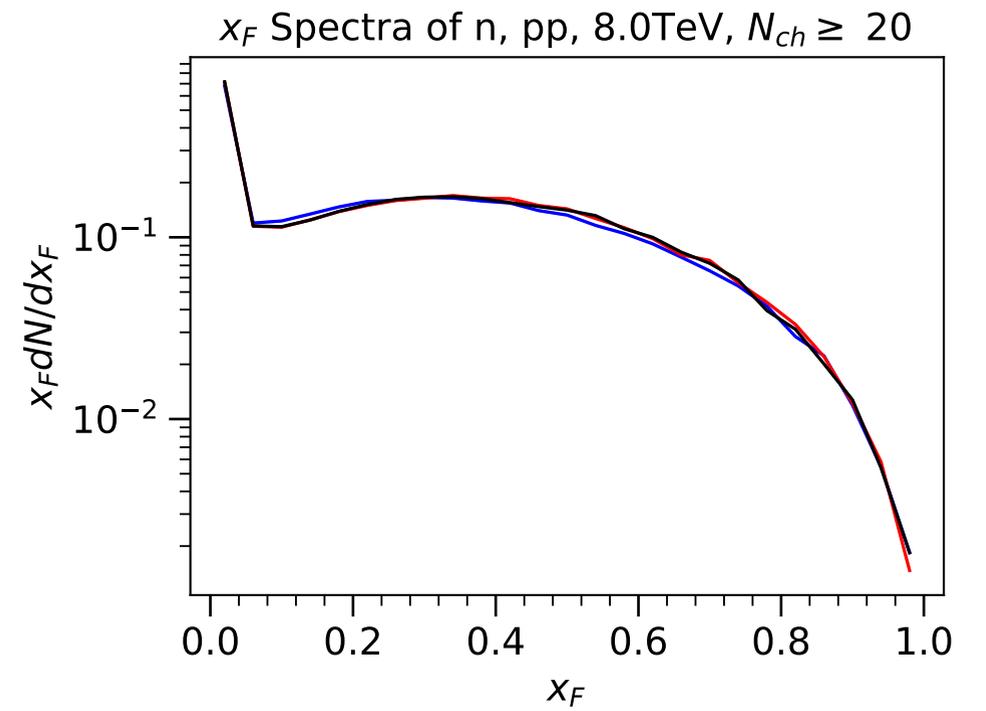
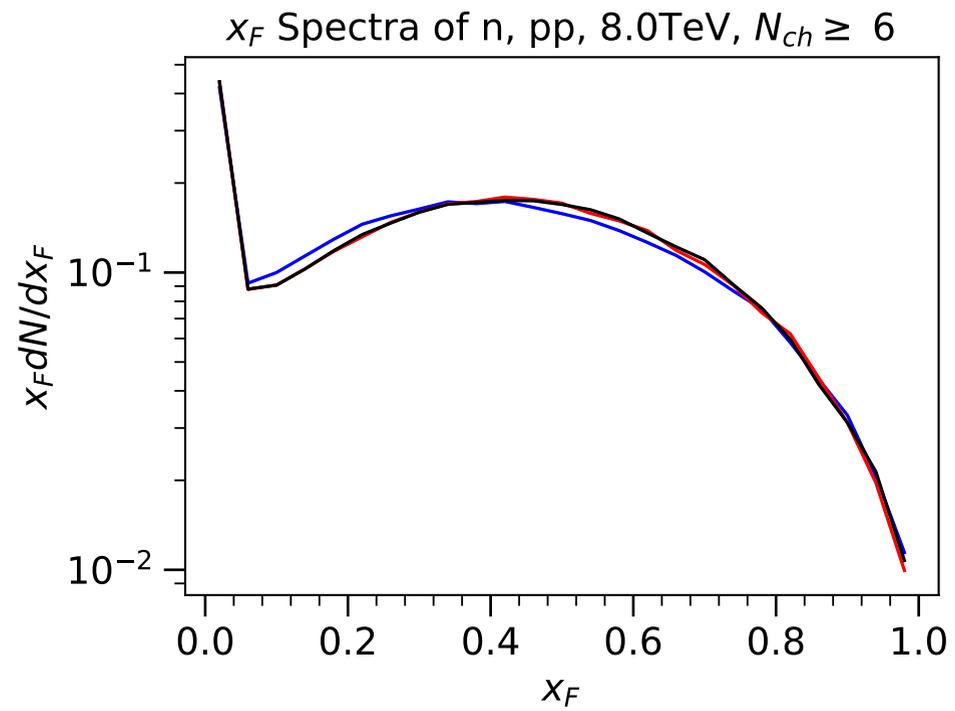
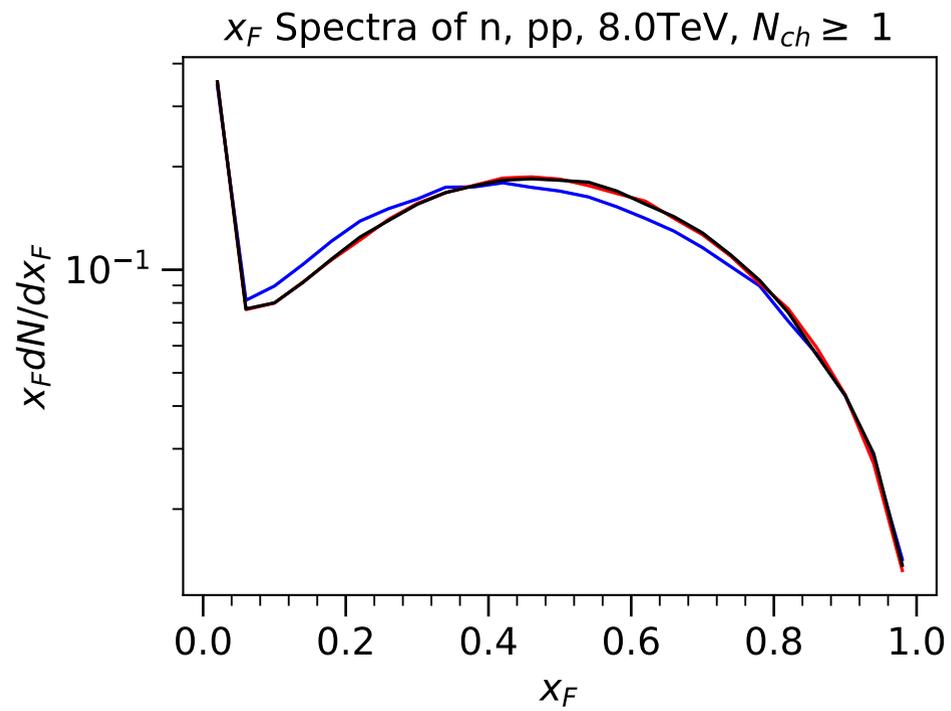
x_F Spectra of π^0 in pp Collisions



x_F Spectra of π^0 in pp Collisions

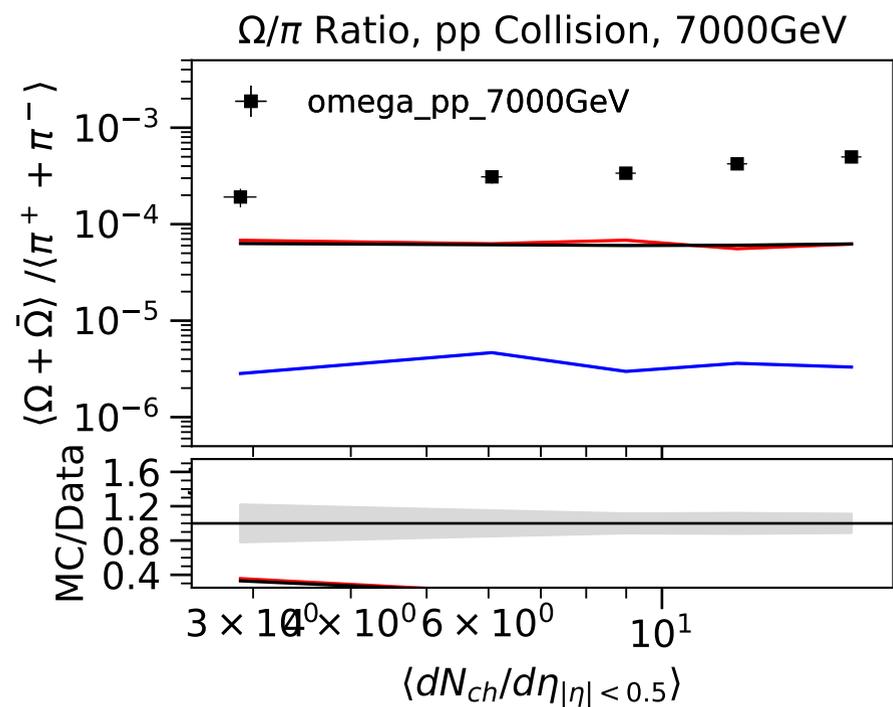
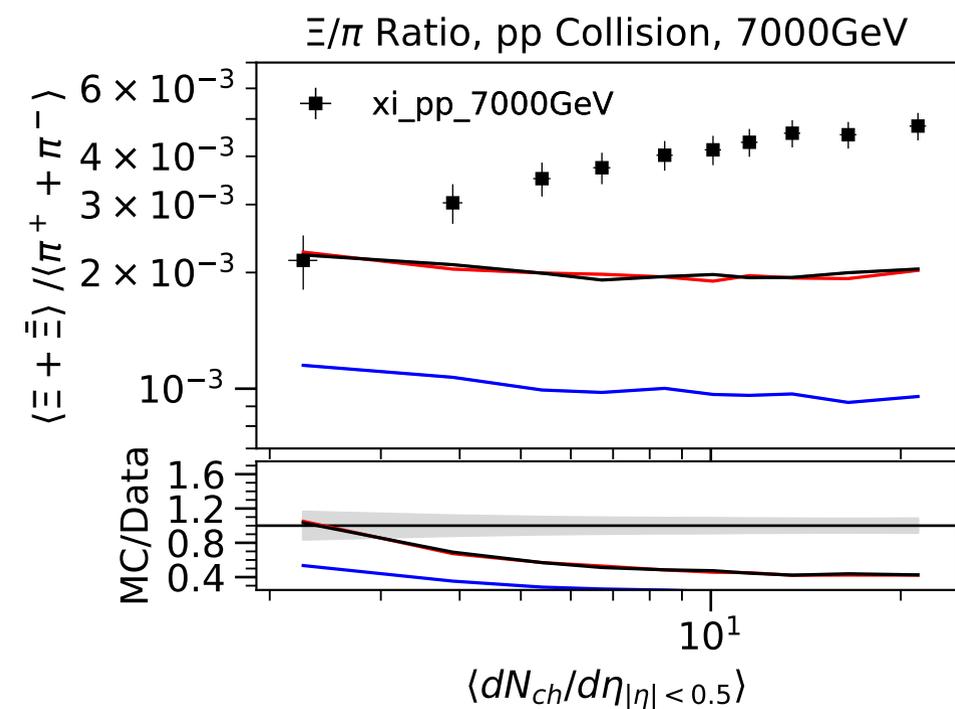
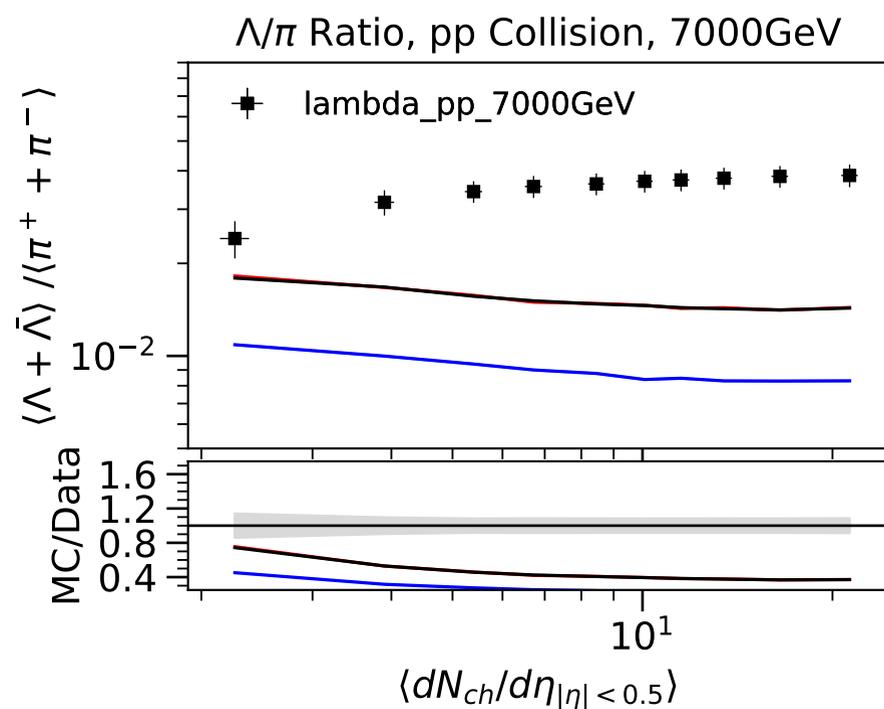
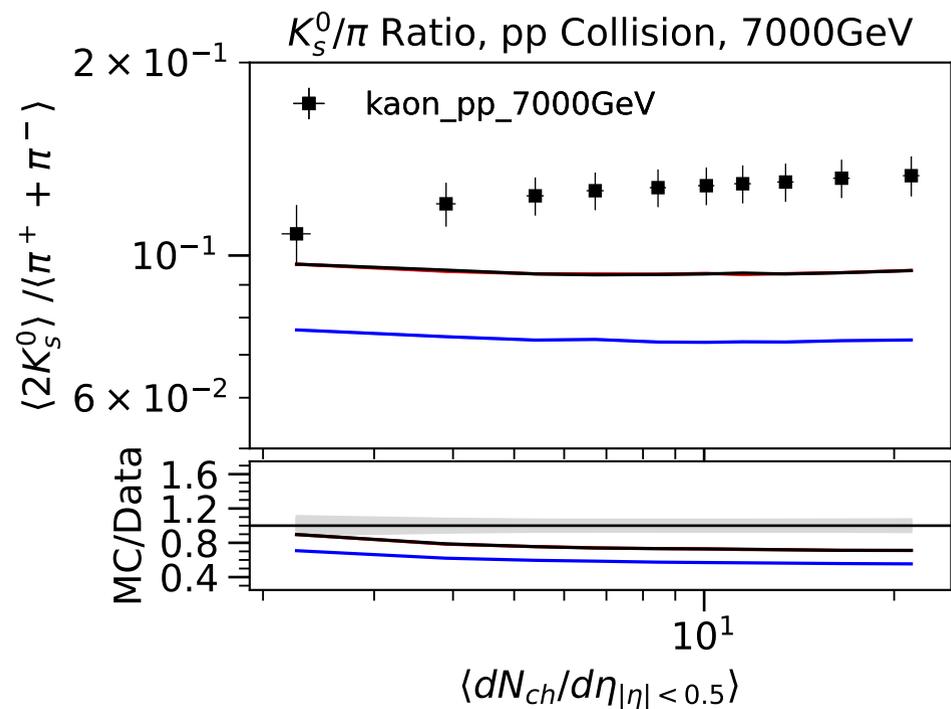


x_F Spectra of n in pp Collisions

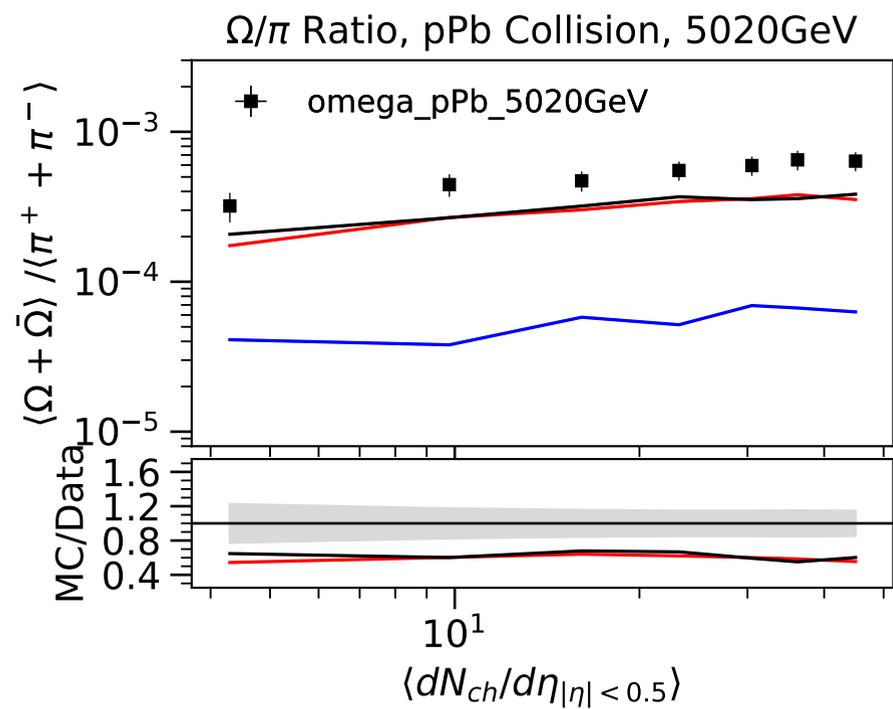
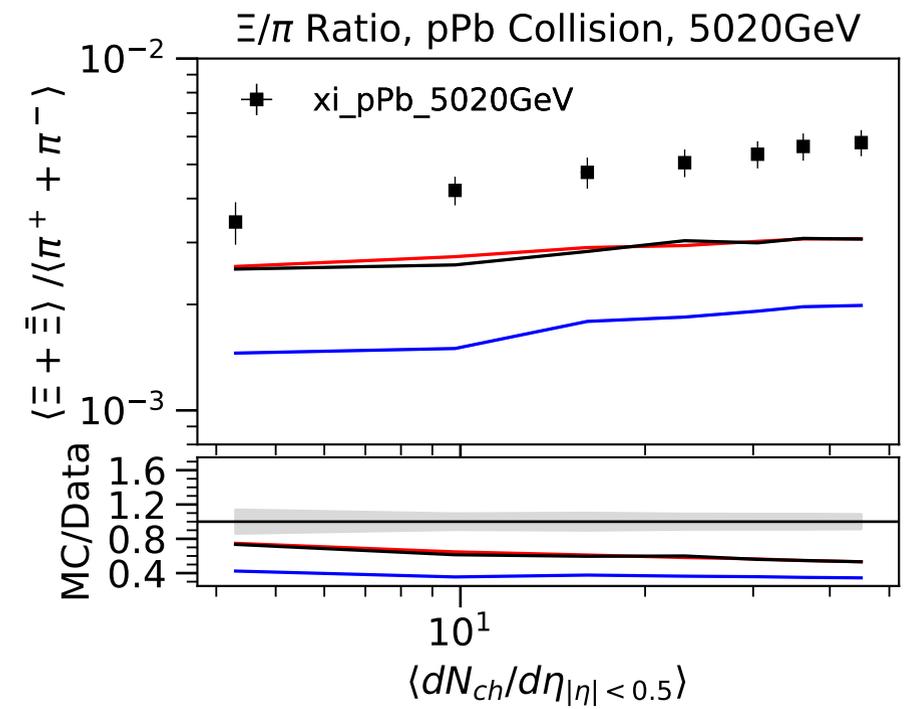
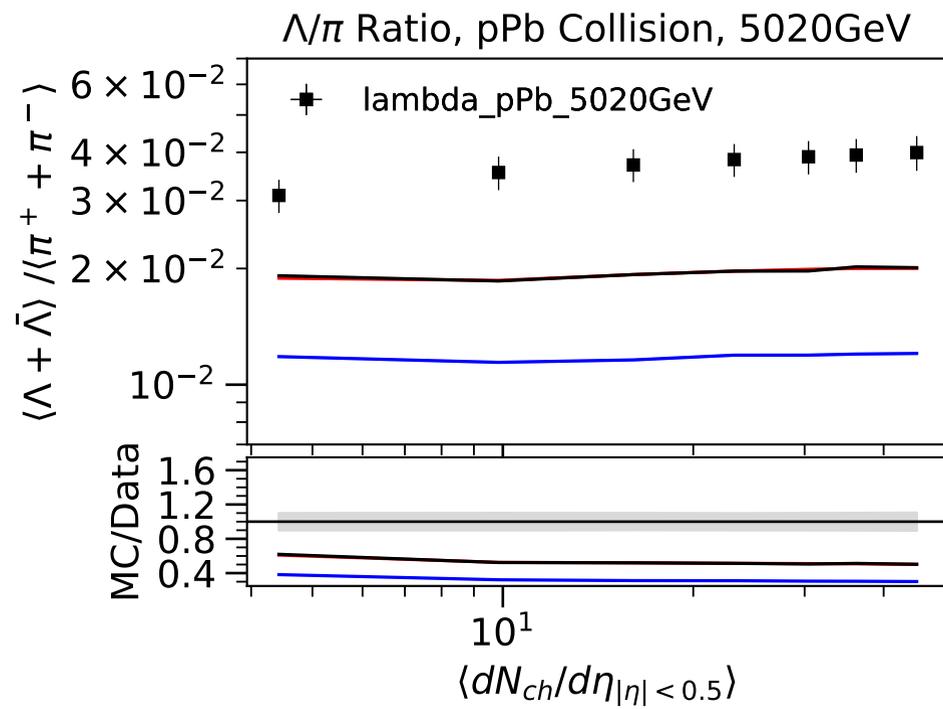
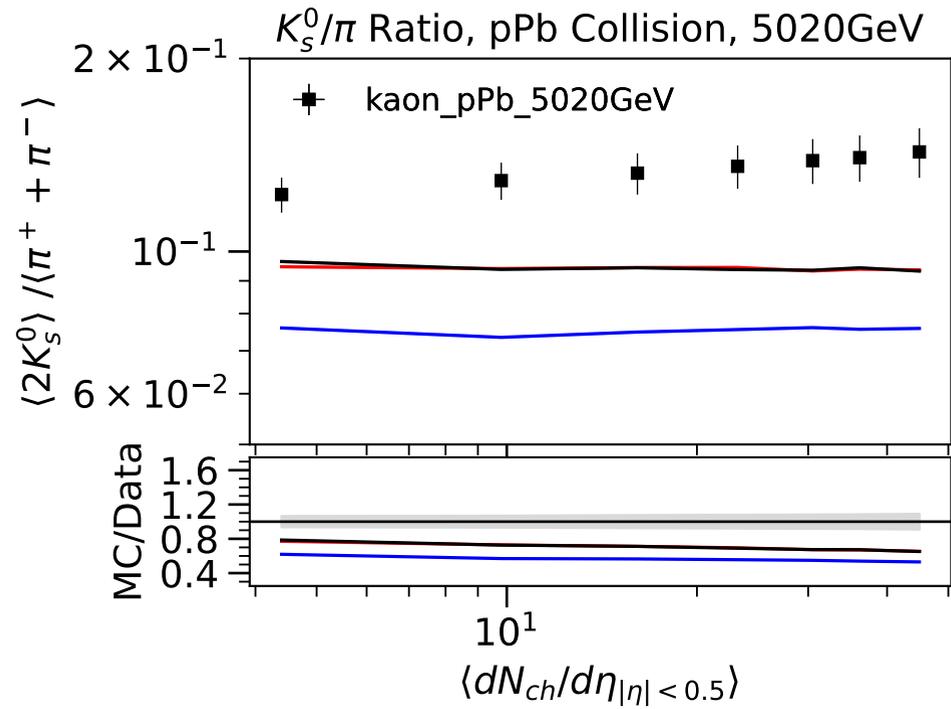


ALICE - K_S^0 , Λ , Ξ , Ω to π Ratio

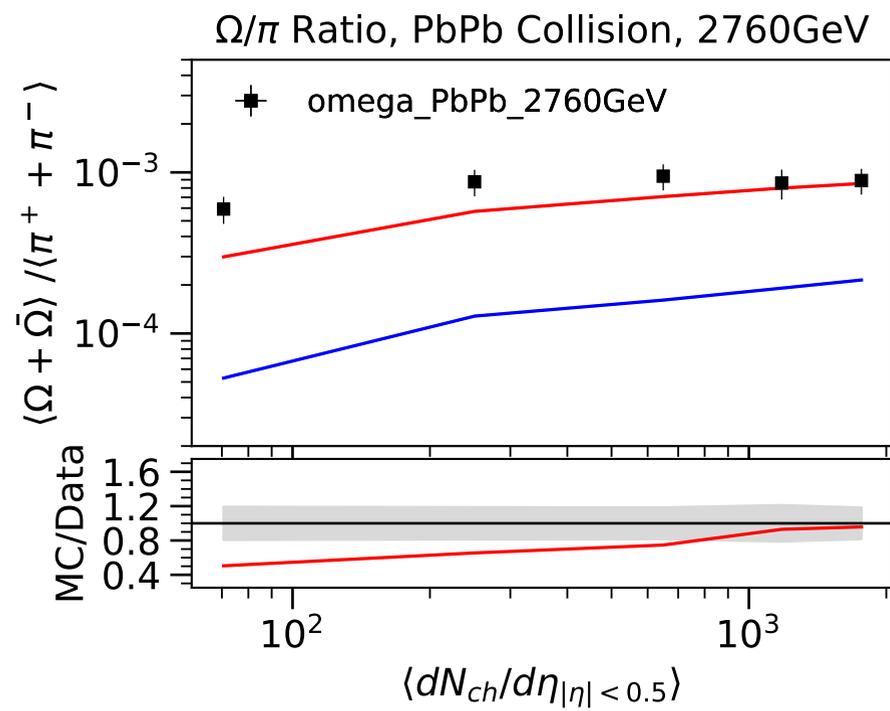
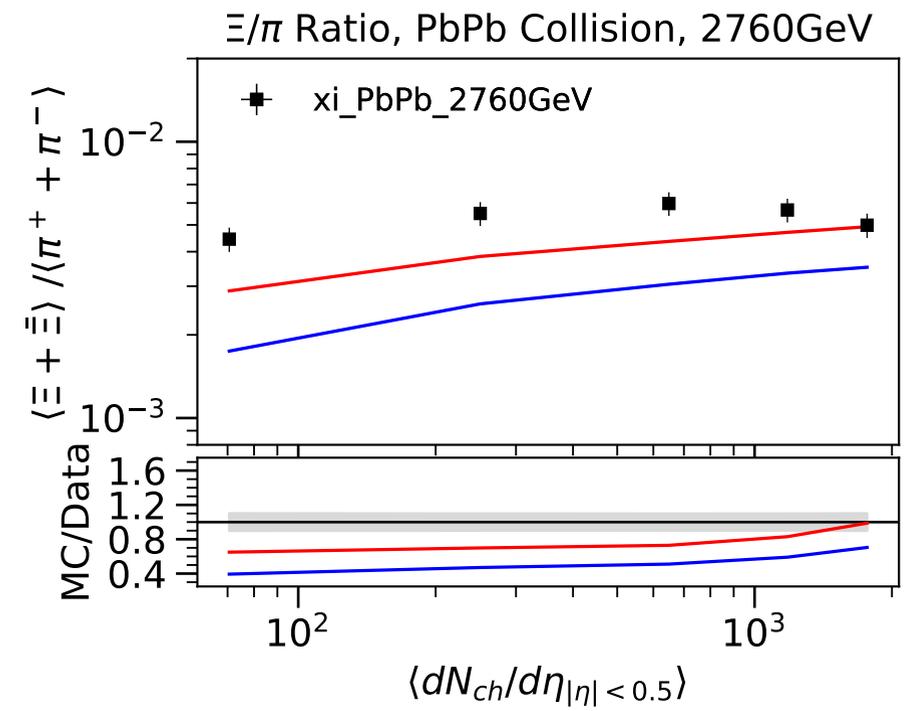
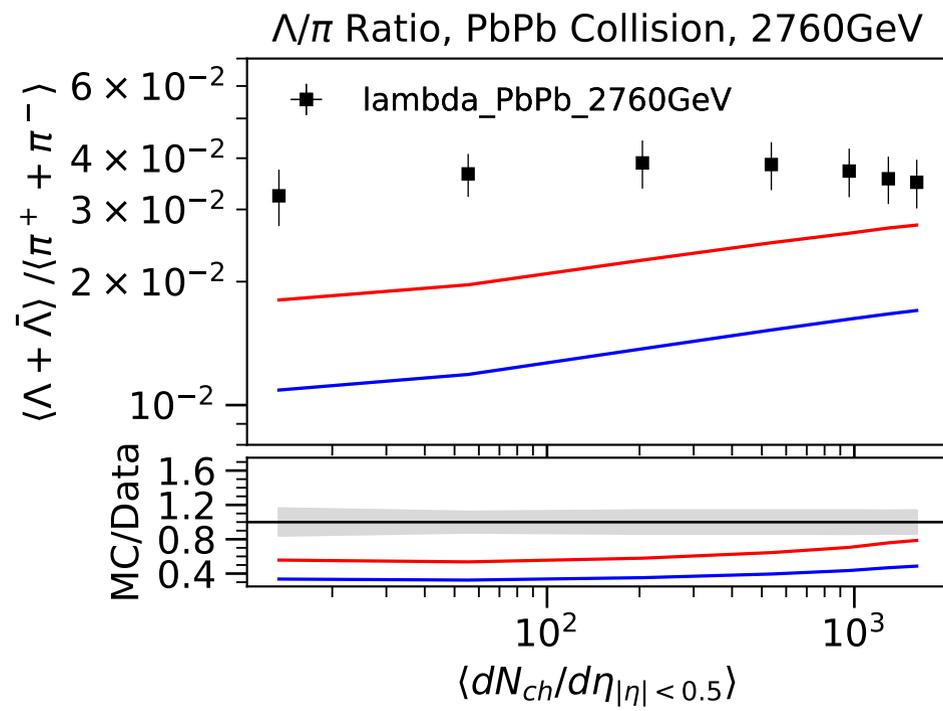
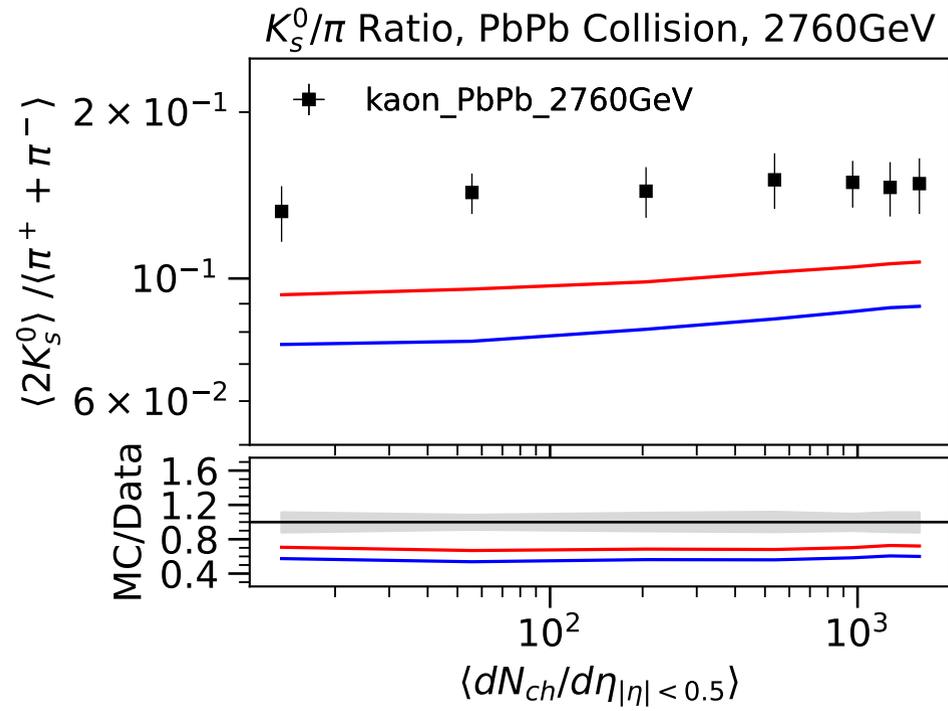
Ratios of Secondary Particles to $\langle \pi \rangle$ in pp Collisions



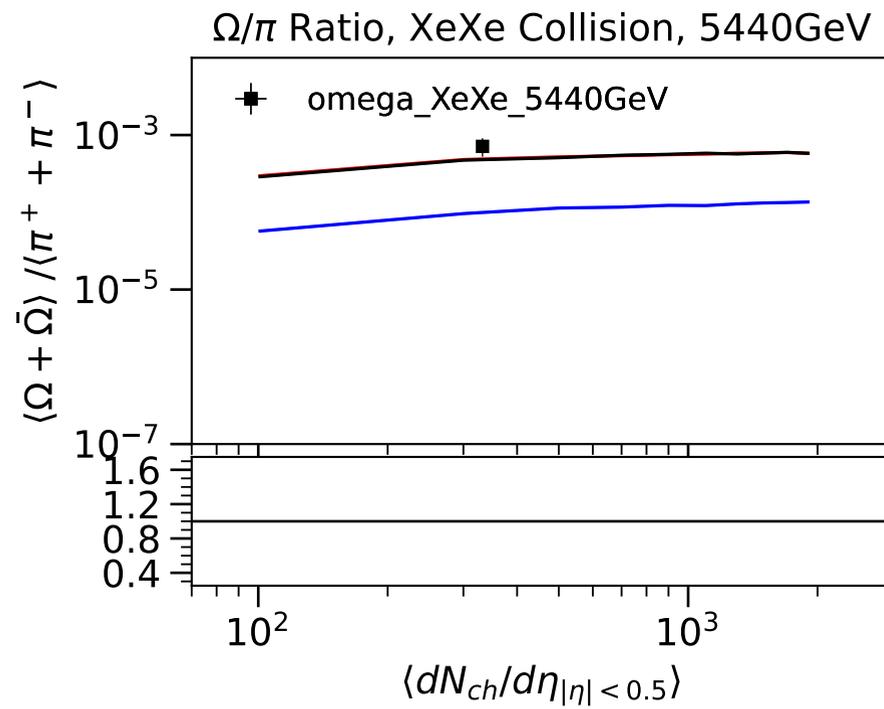
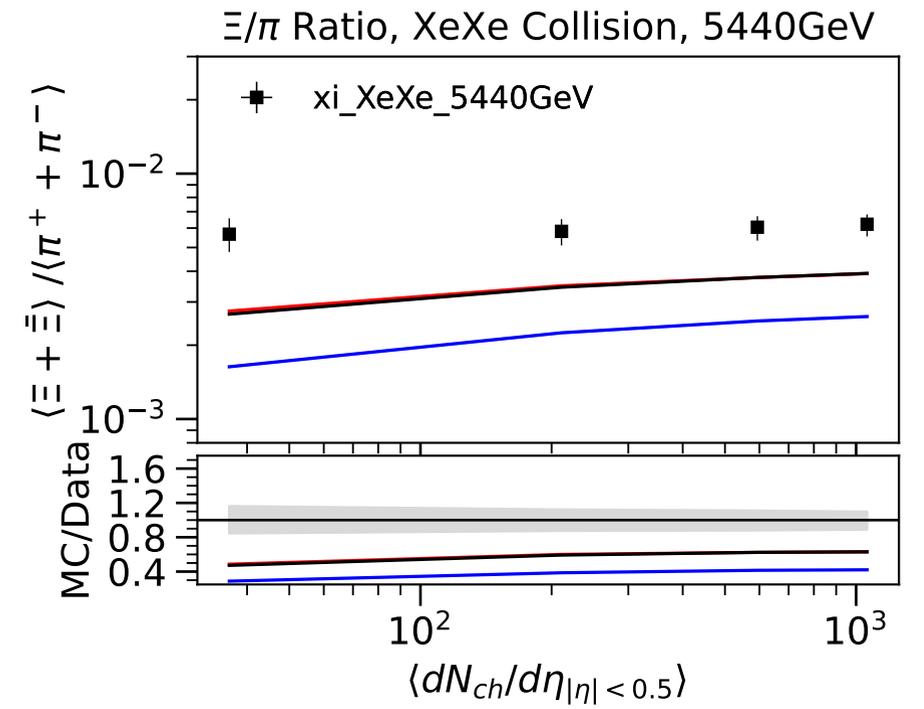
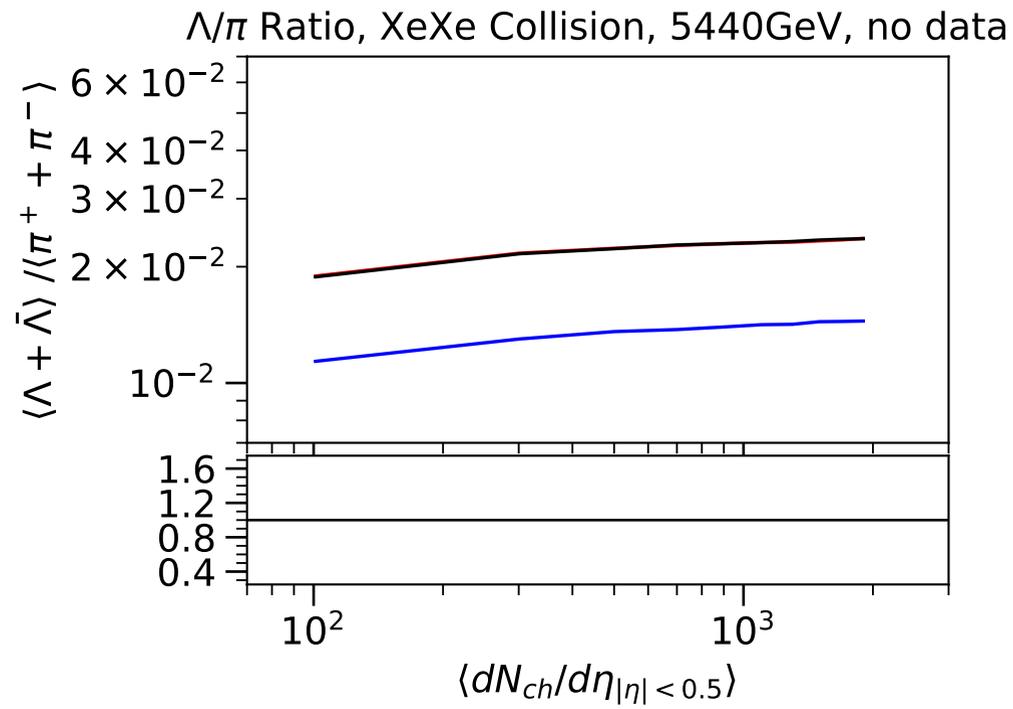
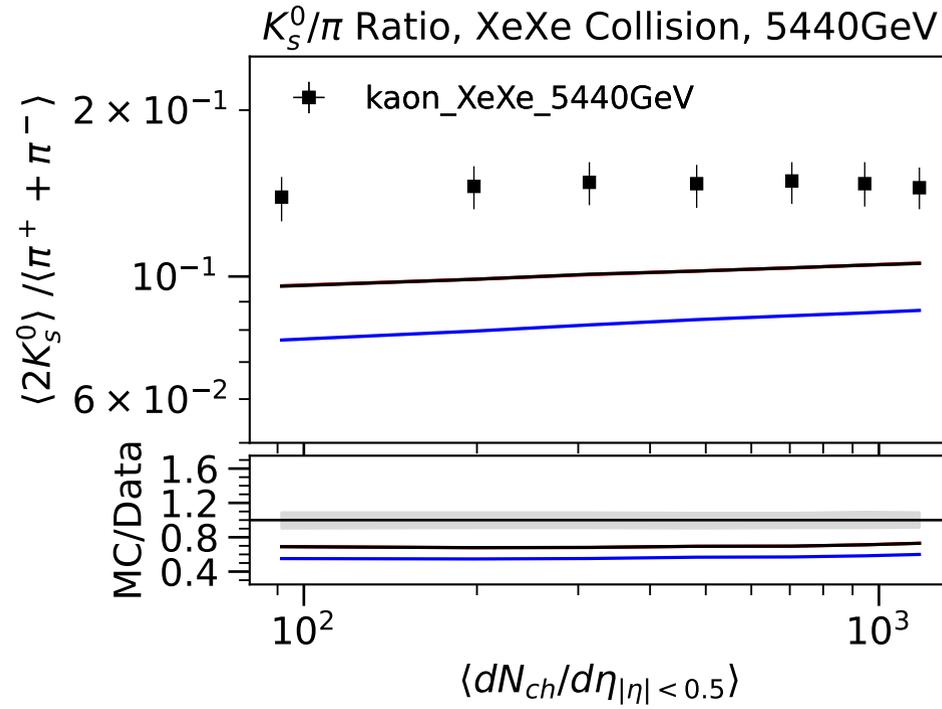
Ratios of Secondary Particles to $\langle \pi \rangle$ in pPb Collisions



Ratios of Secondary Particles to $\langle \pi \rangle$ in PbPb Collisions



Ratios of Secondary Particles to $\langle \pi \rangle$ in XeXe Collisions



LHC: proton lead runs

ALICE - NSD pPb η distribution.

