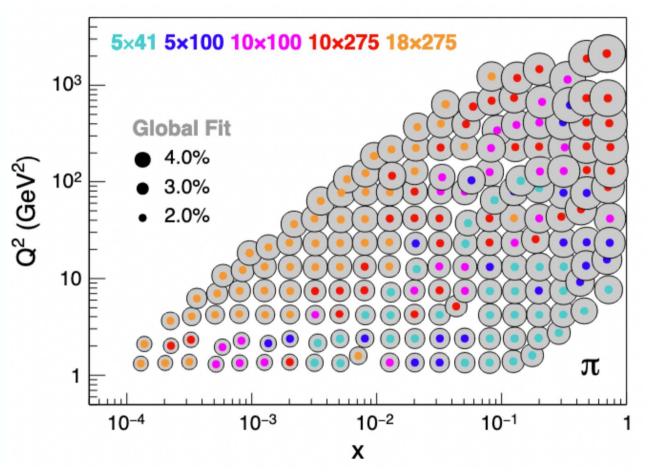




#### TDR plot 1: Expected statistical uncertainty of Unpolarized TMD PDFs

plot by: Gregory Matousek



New impact studies available from the theory group:

L. Rossi, M. Radici,

A. Bacchetta

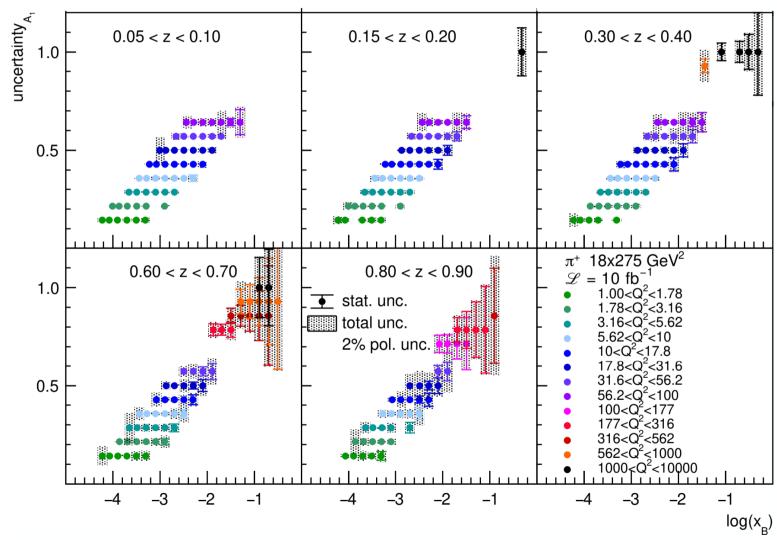
The plot shows the expected statistical uncertainties and the coverage from the different beam energies for the extraction of unpolarized TMD PDFs



# **SIDIS Working Group**

## TDR plot 2: Statistical and total uncertainty of $A_{LL}$ of $\pi^+$ for helicity PDFs

plot by: Charlotte van Hulse



updates withe newest simulation version ongoing ...



## Plot 3 (maybe): A<sub>UT</sub> for polarised TMD PDFs plot based on ECCE by: Ralf Seidl

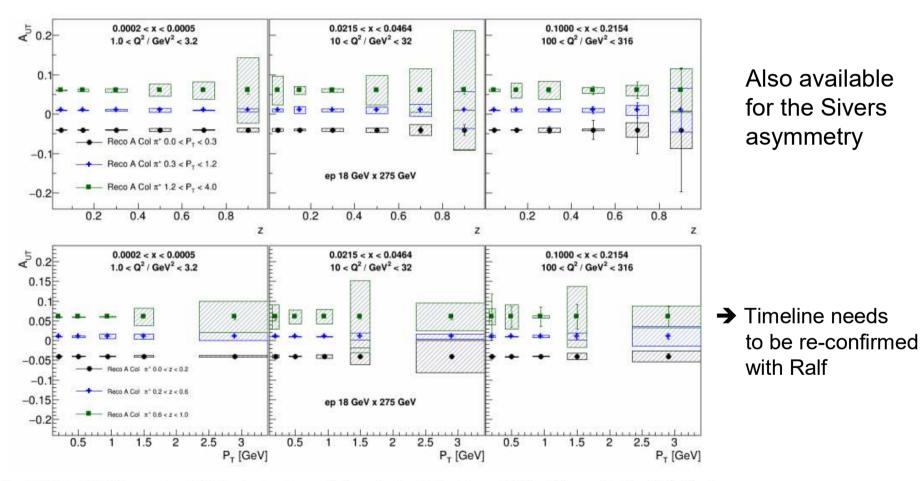


Figure 9: Projected  $\pi^+$  Collins asymmetry statistical and systematic uncertainties as a function of either z (top panel) in bins of  $P_T$  or as a function of  $P_T$  in bins of z (bottom panel) for three select x and  $Q^2$  bins. The asymmetries are shown at arbitrary values for better visibility. The statistical uncertainties are extrapolated to an accumulated luminosity of 10 fb<sup>-1</sup> for the 18 GeV x 275 GeV energy option. For better visibility either 4 bins in  $P_T$  and 2 bins in z were combined or vice versa.



### Additional ongoing studies:

- PID studies as a function of the different SIDIS variables to study the newly implemented PID (L. Polizzi)

#### Request for the TDR plots:

- Upload the TDR plots to the SIDIS wiki together with a detailed description, including the shown uncertainties (also preliminary versions)

Wiki: https://wiki.bnl.gov/EPIC/index.php?title=SIDIS