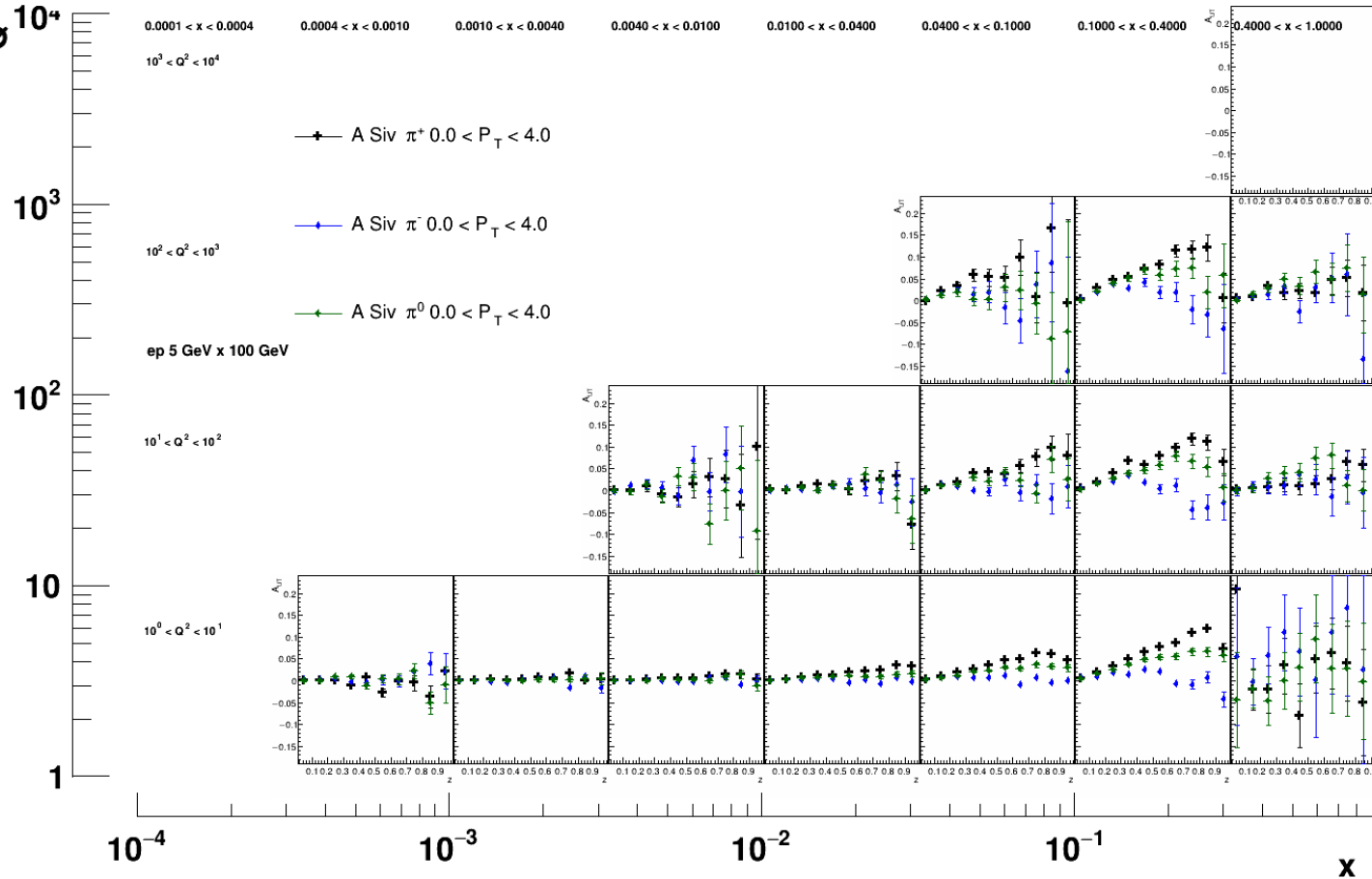# Torino parameterization Sivers/Collins asymmetries
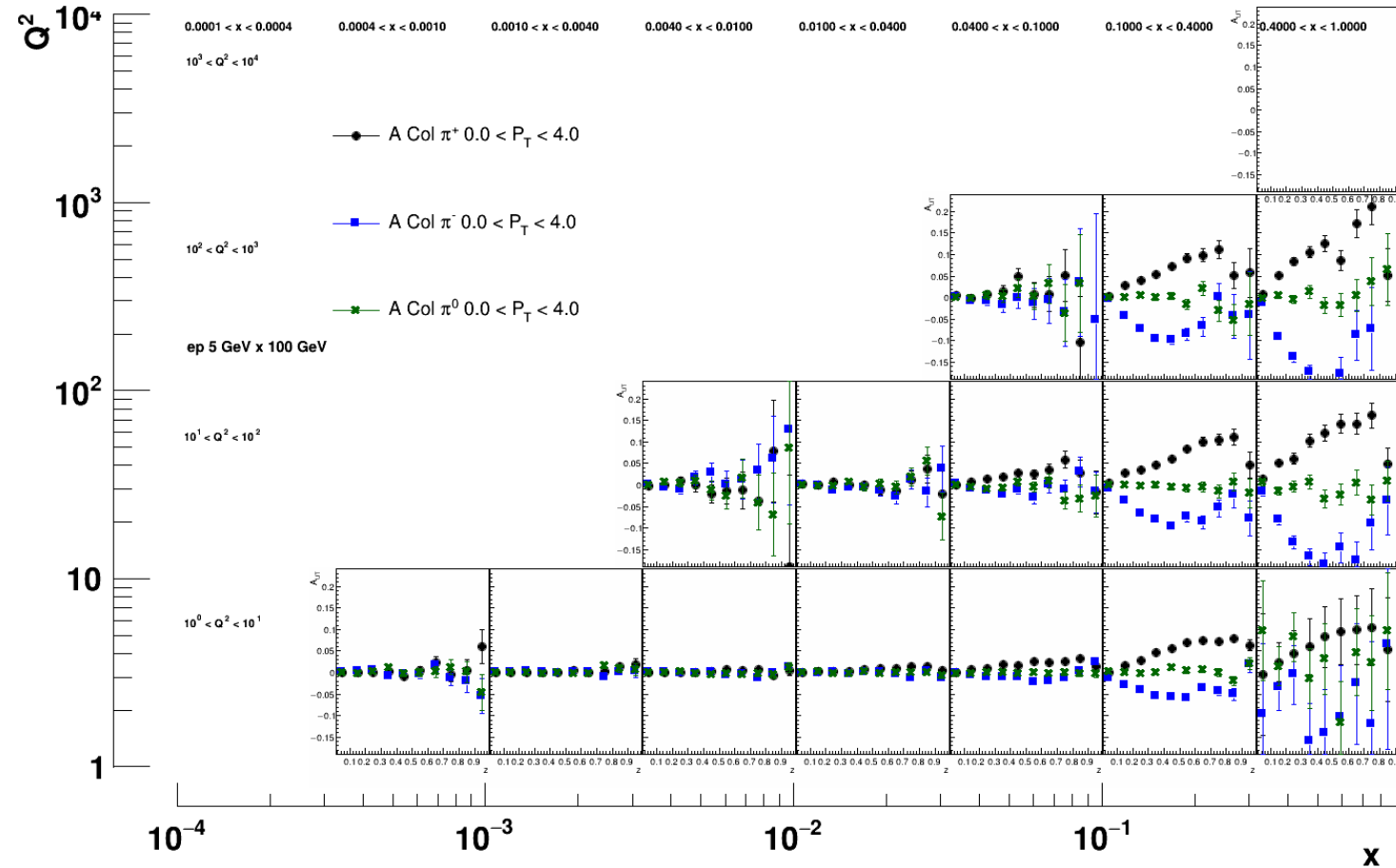
Ralf Seidl (RIKEN)

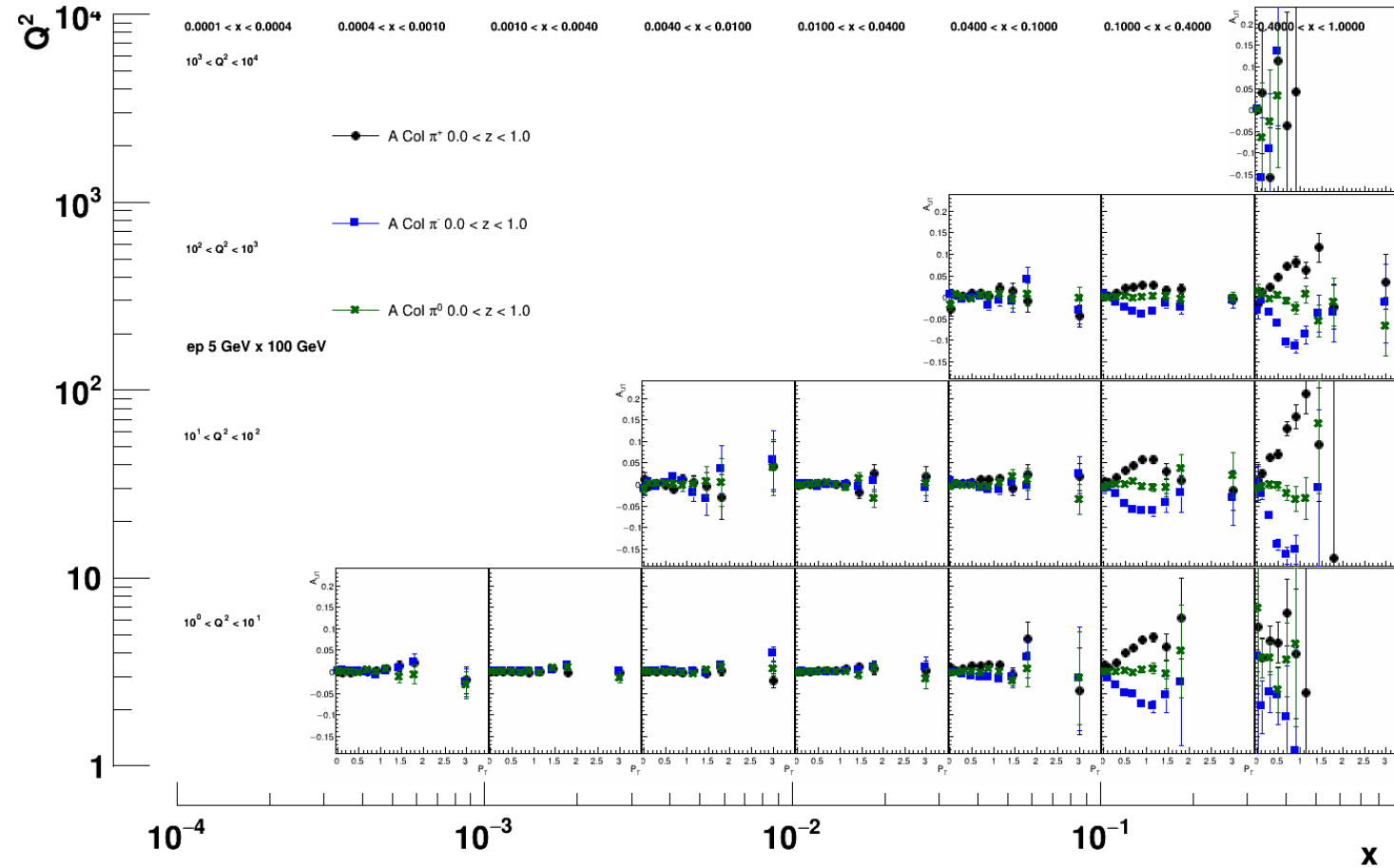# Torino08 weighted asymmetries, z dep, Sivers

- Torino 08 parameterization from Alexei's wrapper of Sivers, Collins and unpol TMD structure functions, separated by flavor and hadron type
- Reweighting of spin dependent using these structure functions on generated azimuthal angles
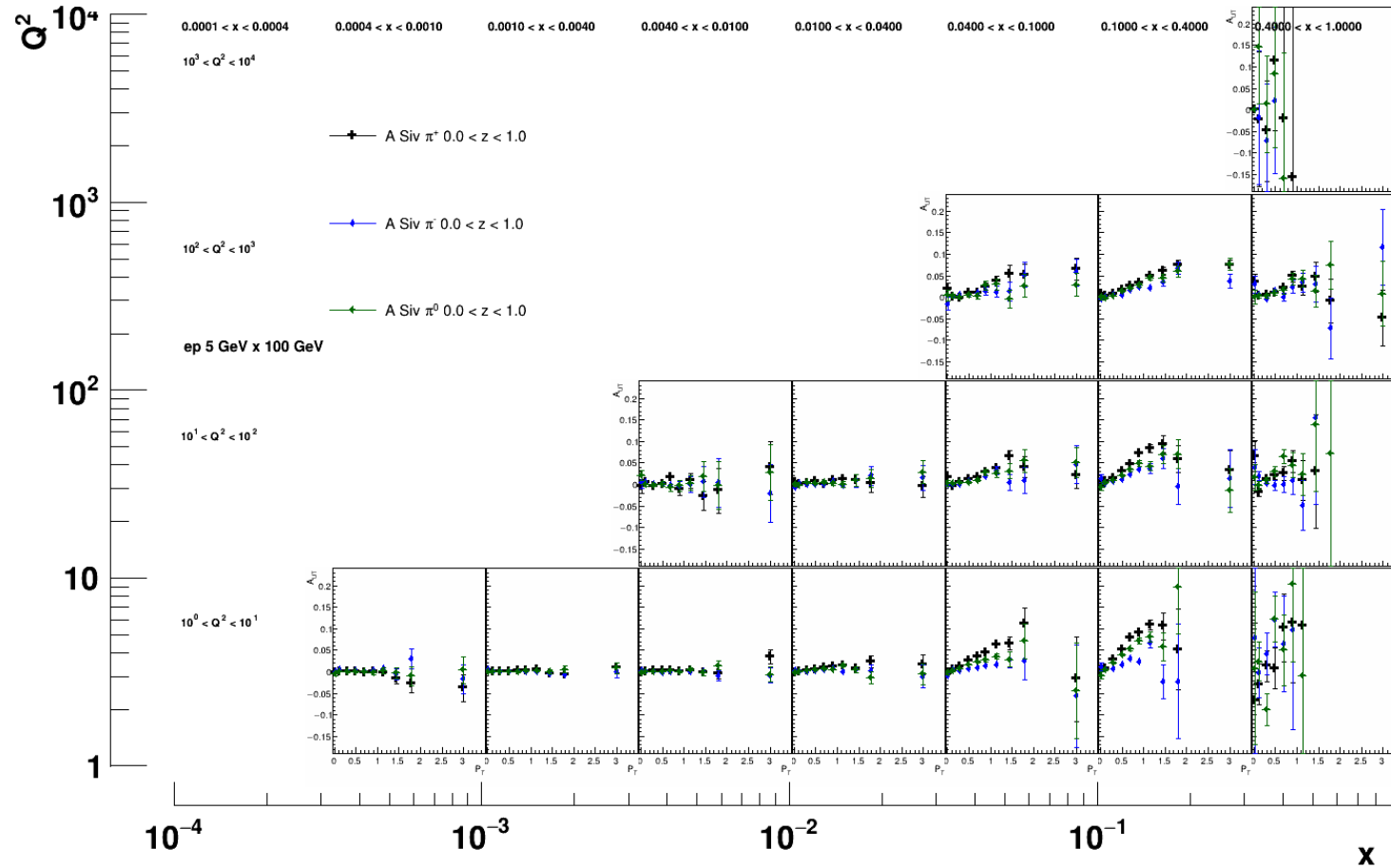- Simultaneous 2D fit of Sivers and Collins asymmetries
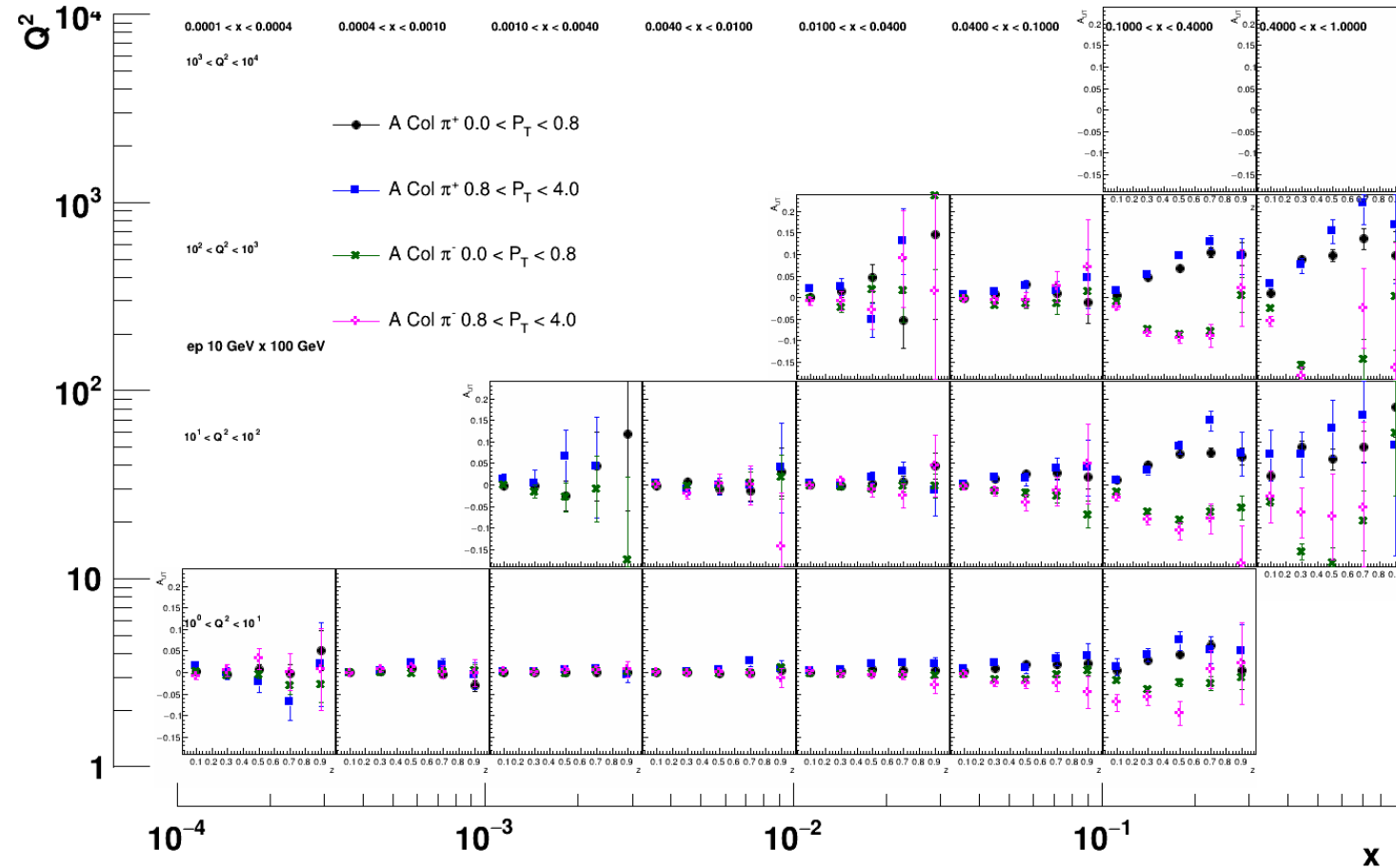
z dependence of weighted asymmetries, Collins
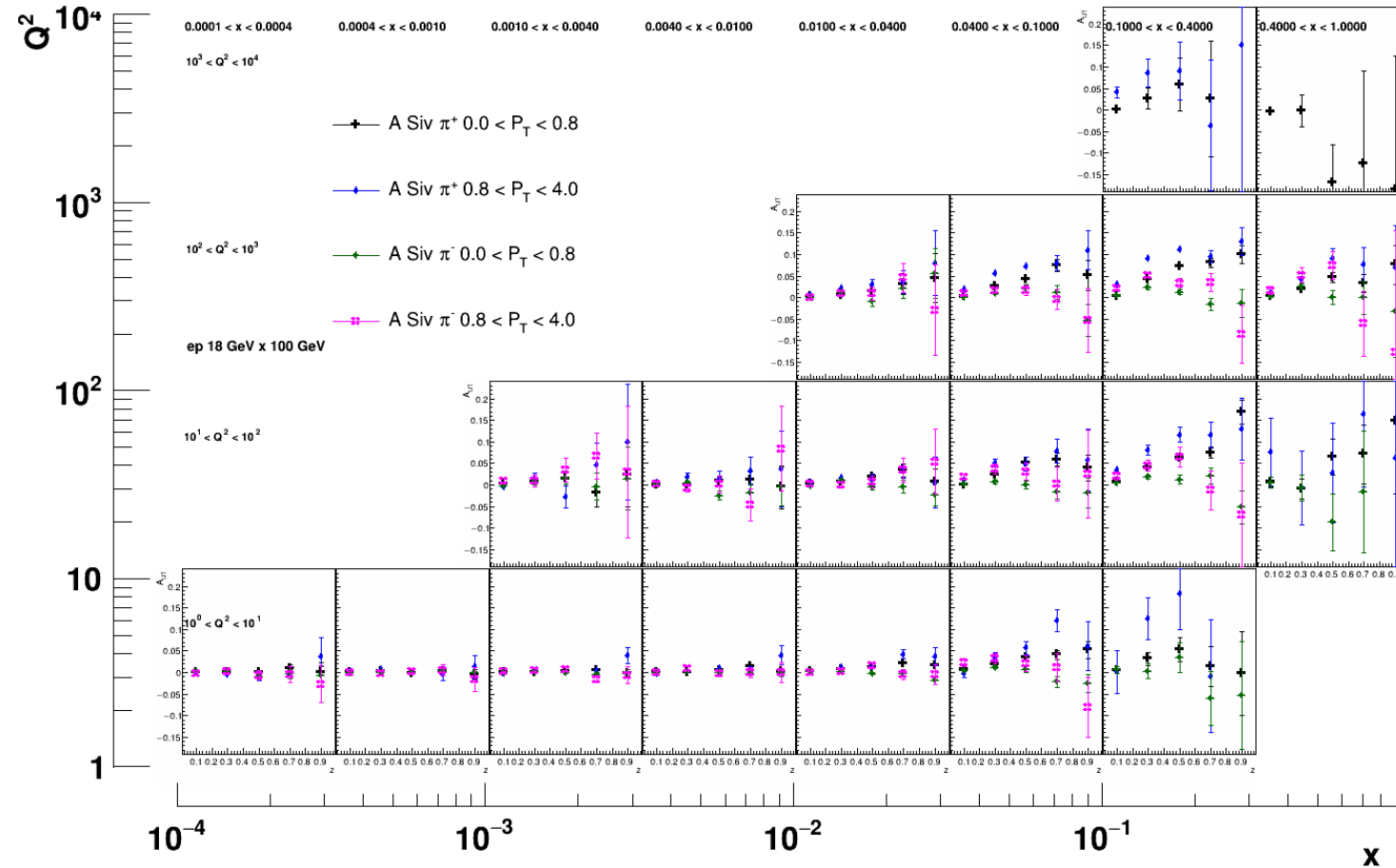
Collins asymmetries vs Pt
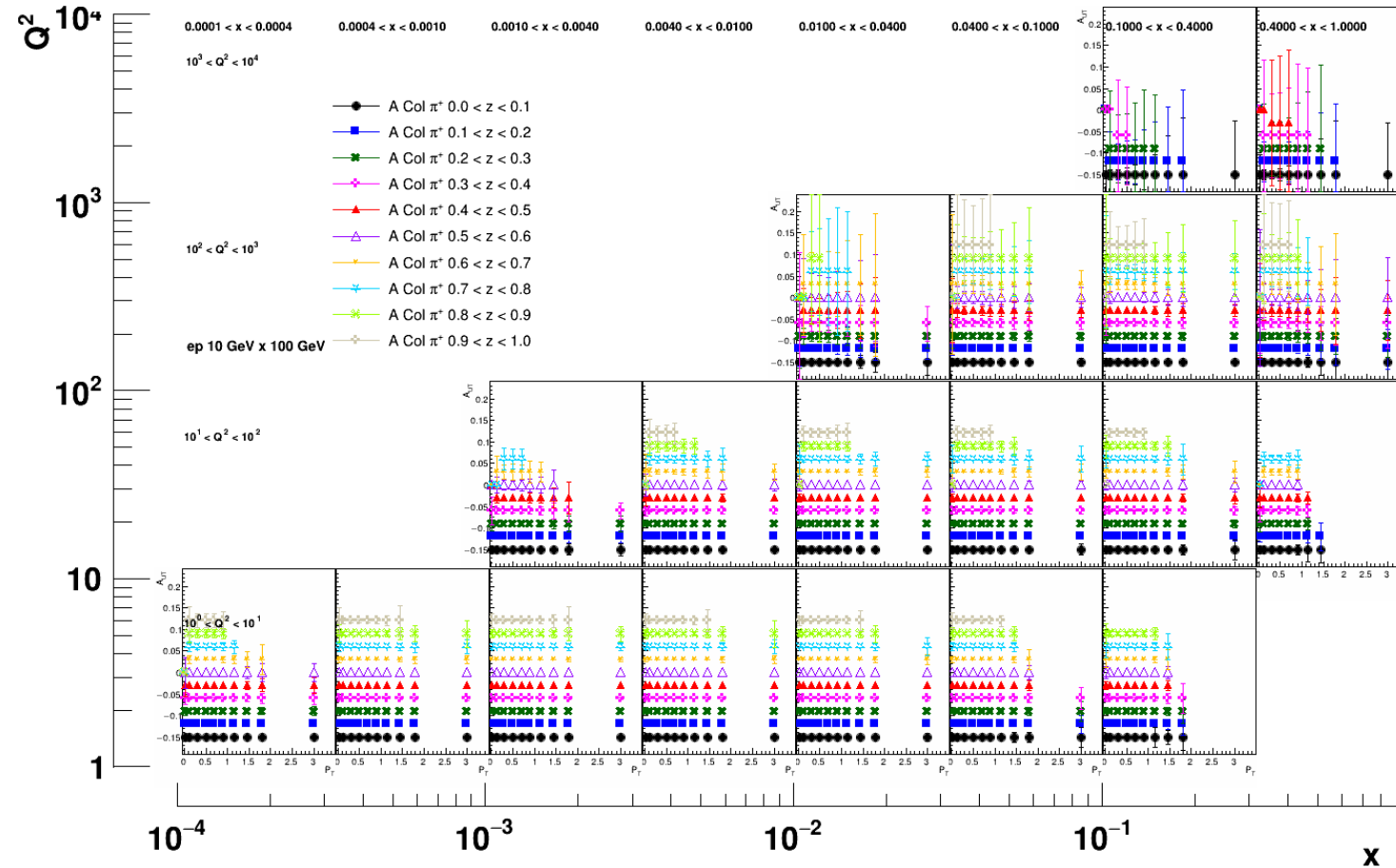
Sivers asymmetries vs Pt
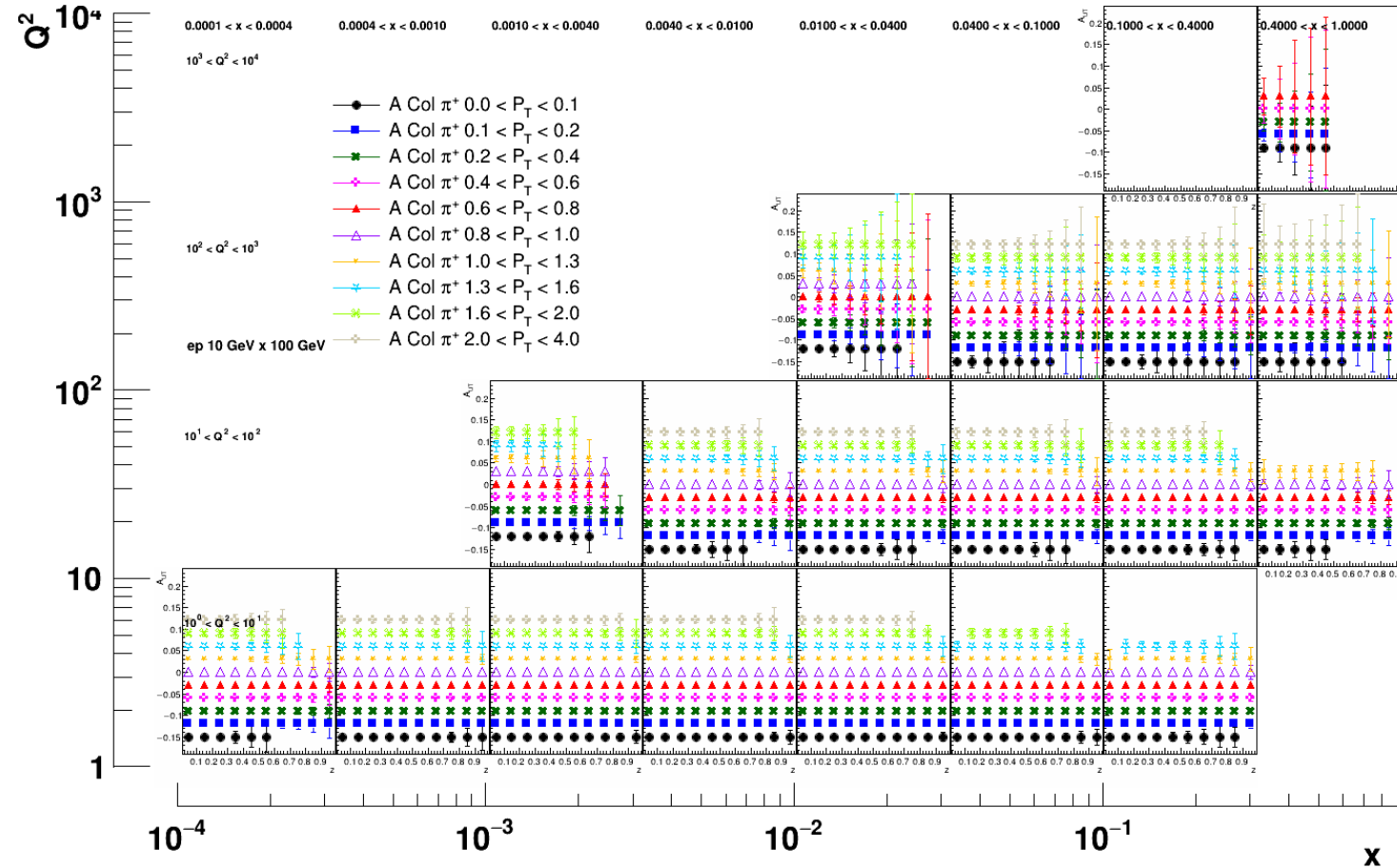
Combined binning, vs z, Collins

Combined binning, vs z, Sivers

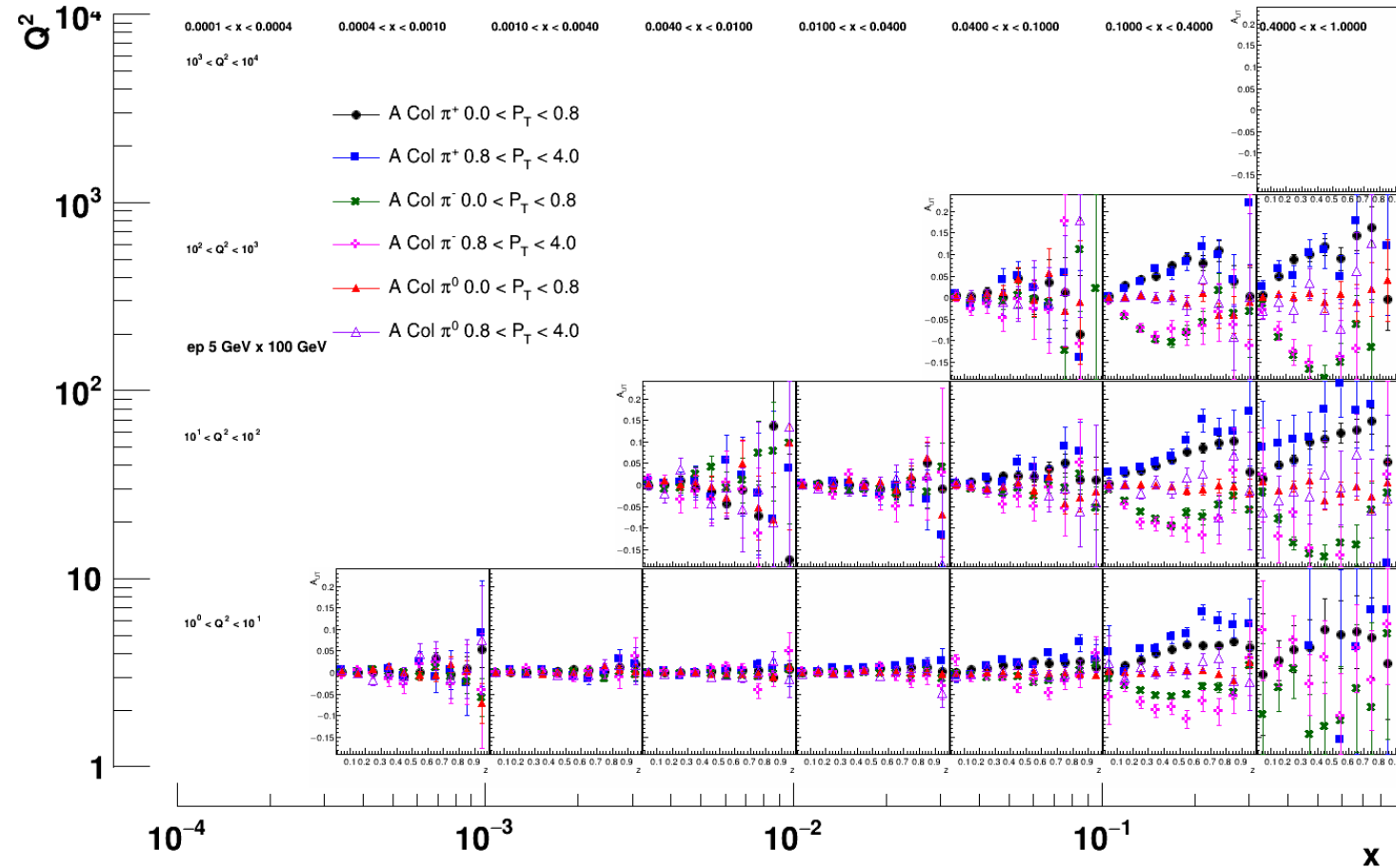# Projection plots for 10x100 vs Pt (others similar)
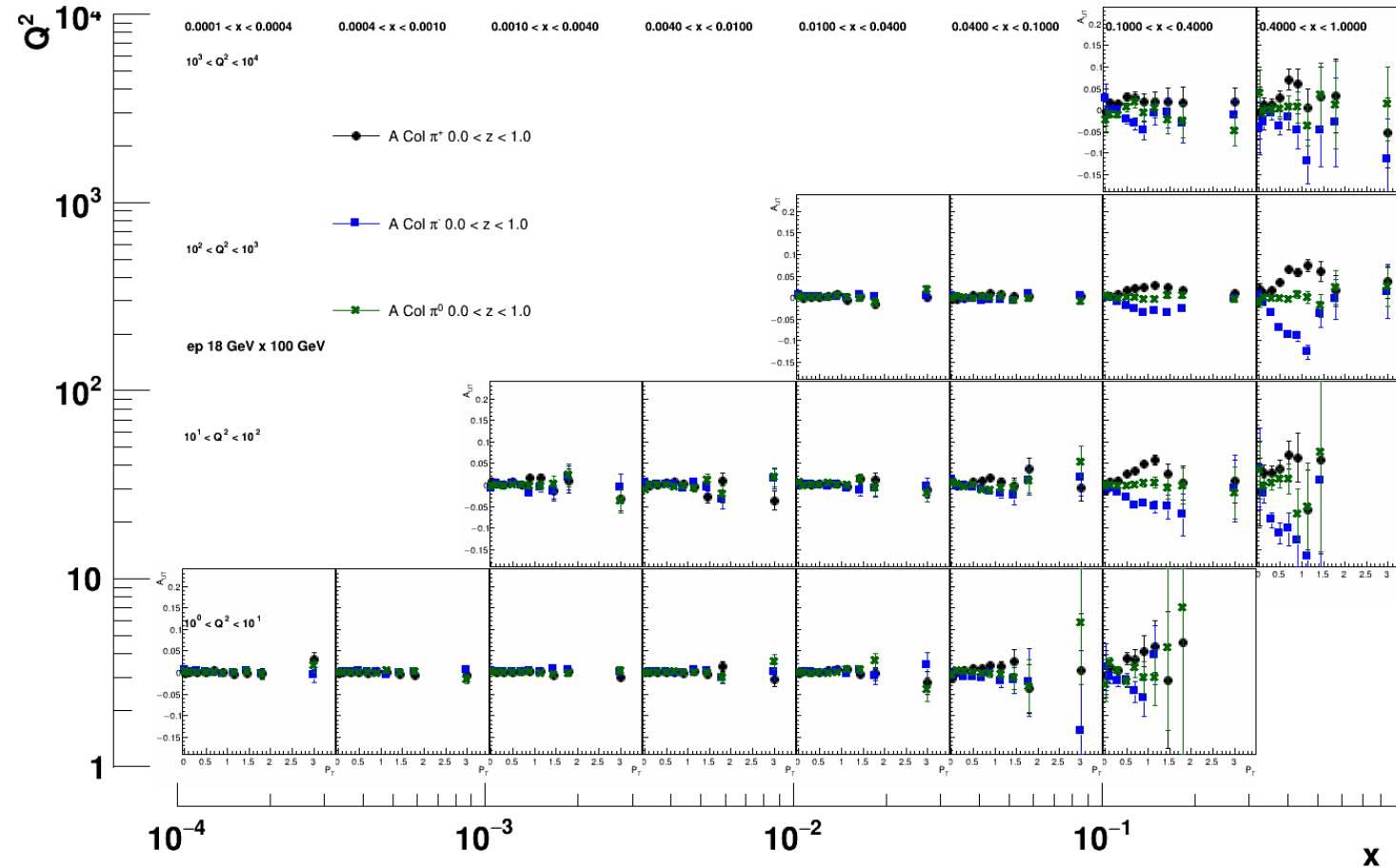
Projection plots for 10x100 vs z

Summary

- Expected Sivers and Collins asymmetries studied using Torino08-weighted PythiaeRHIC

- Very high precision for large range in x, Q2, z and Pt

- Detailed expected uncertainties, including smearing/acceptance will be made available for impact studies.

z dependence of weighted asymmetries

Collins asymmetries vs Pt

Sivers asymmetries vs Pt