

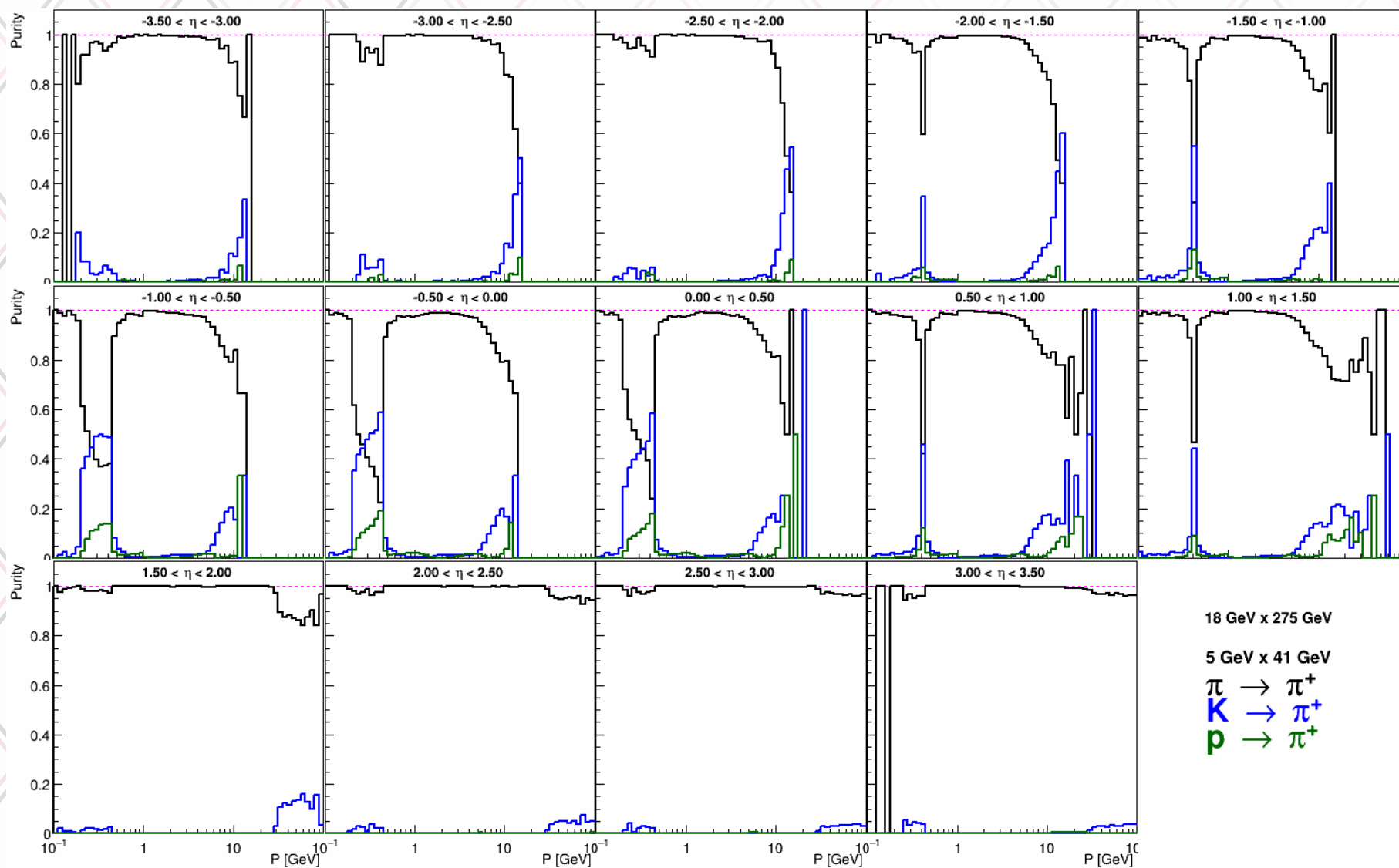
PID efficiencies and purities

Ralf Seidl (RIKEN)

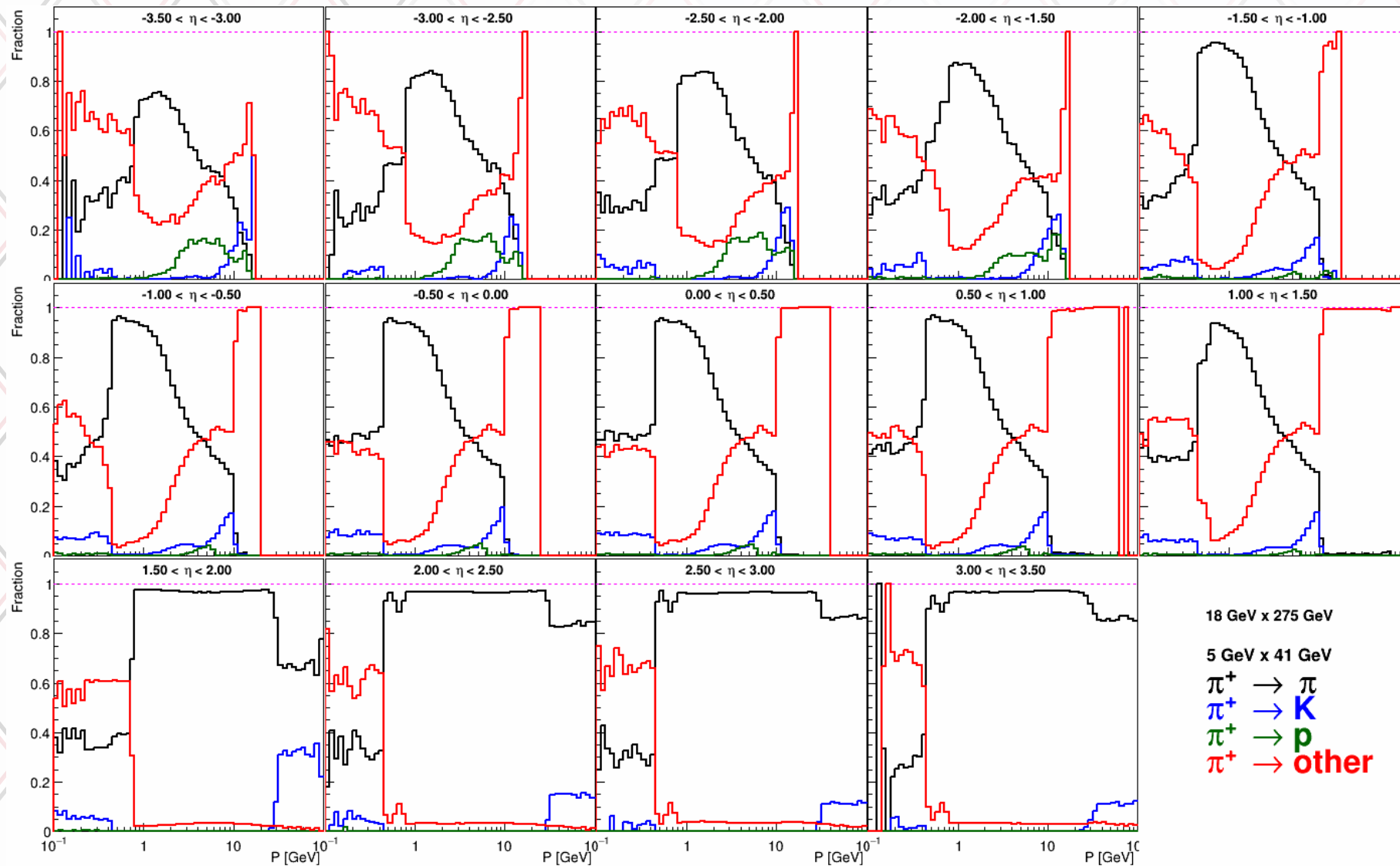
Settings

- 5x41 and 18x275 from 24.07 simulation campaign
- good generated hadrons,
- Plotted for true kinematic variables x, Q, p , etc.

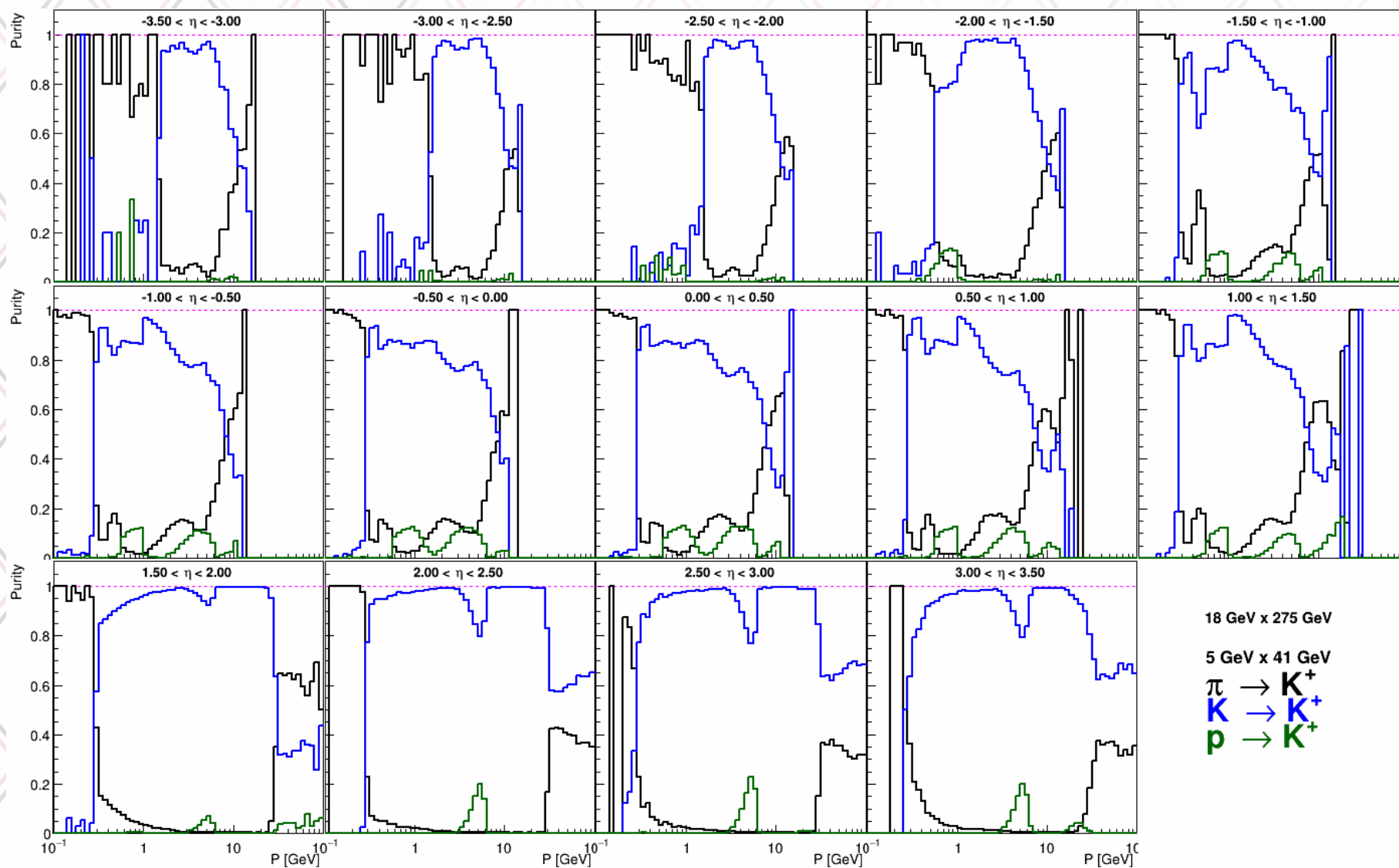
Pion purities vs momentum



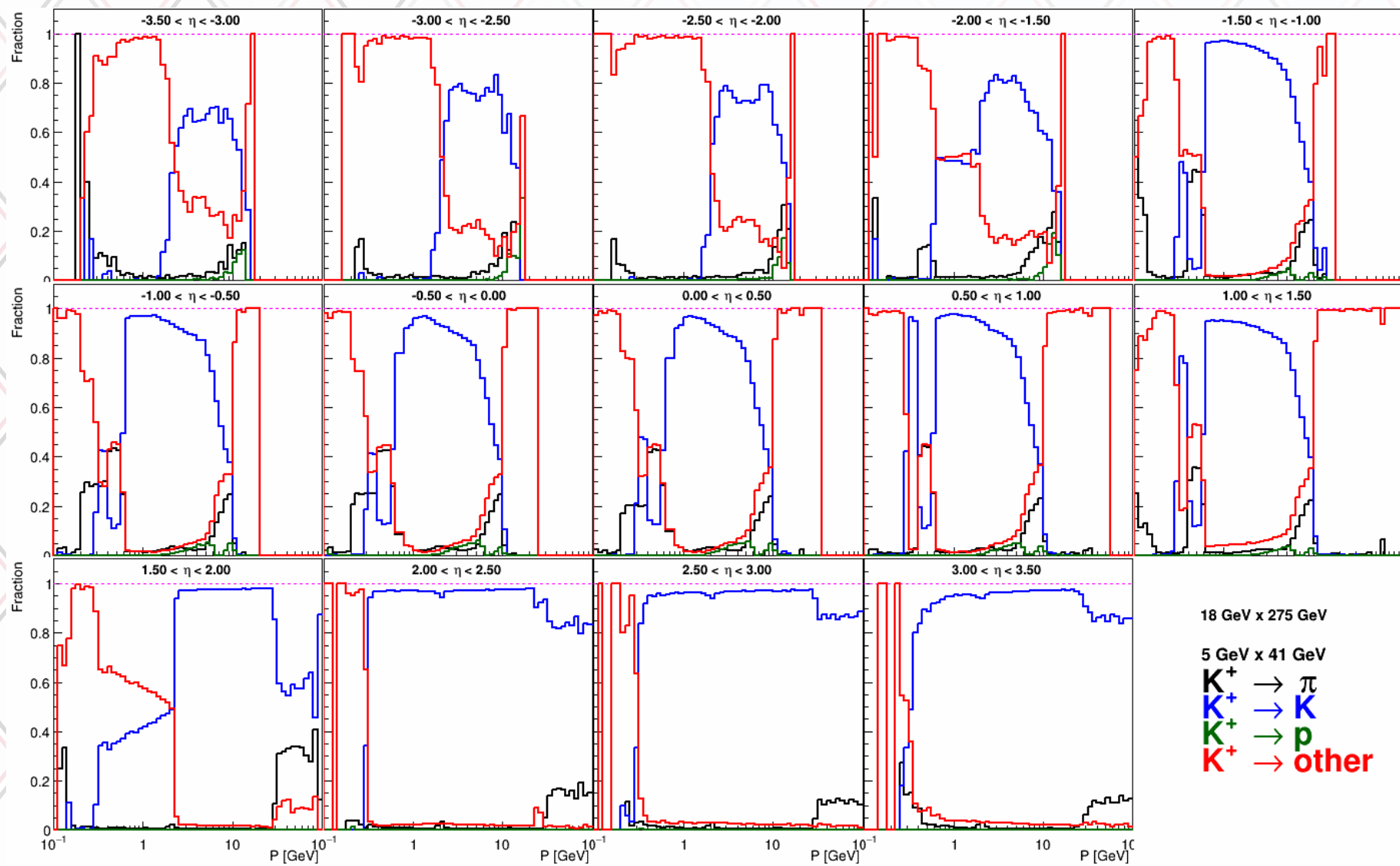
Pion efficiencies vs momentum



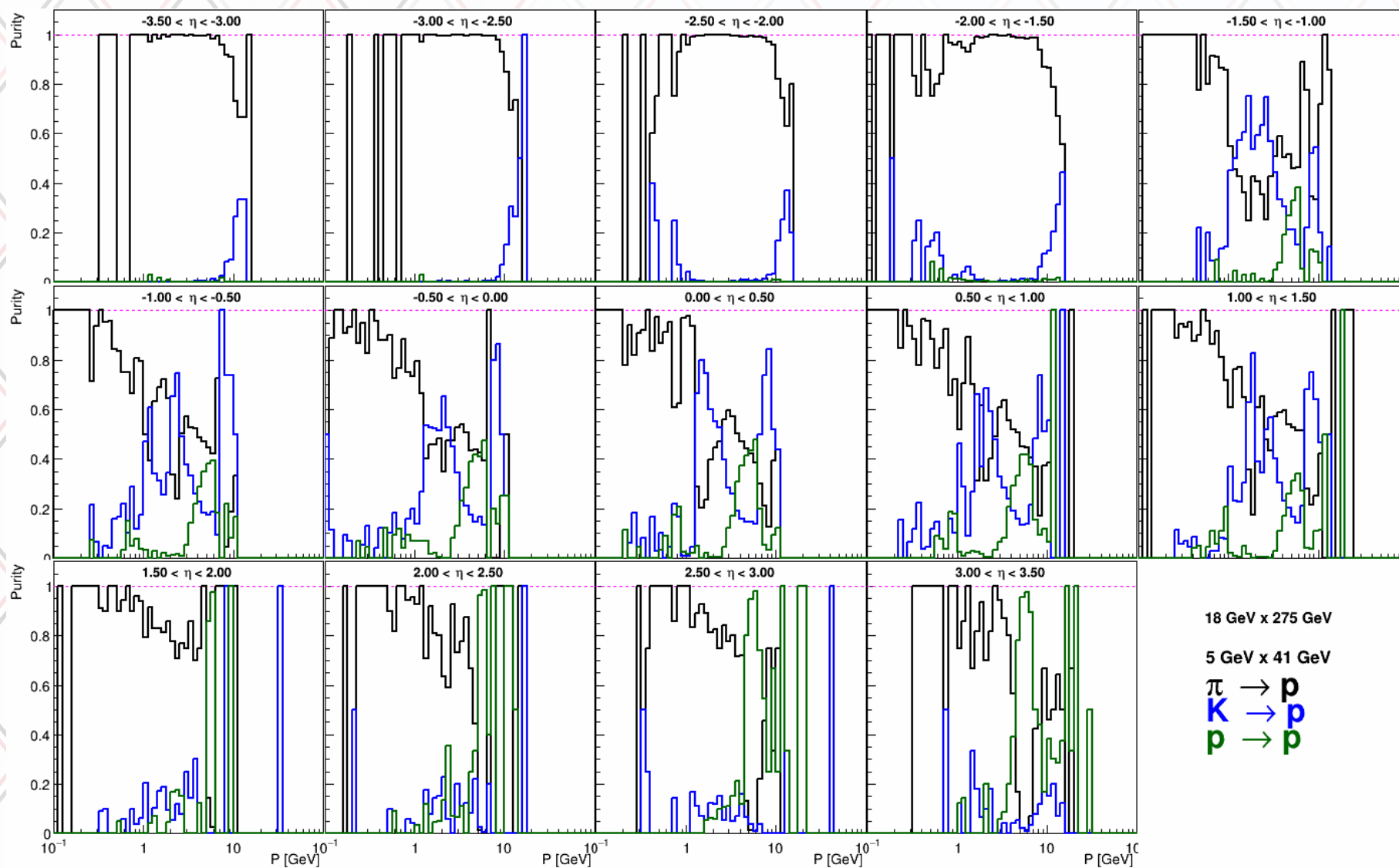
Kaon purities



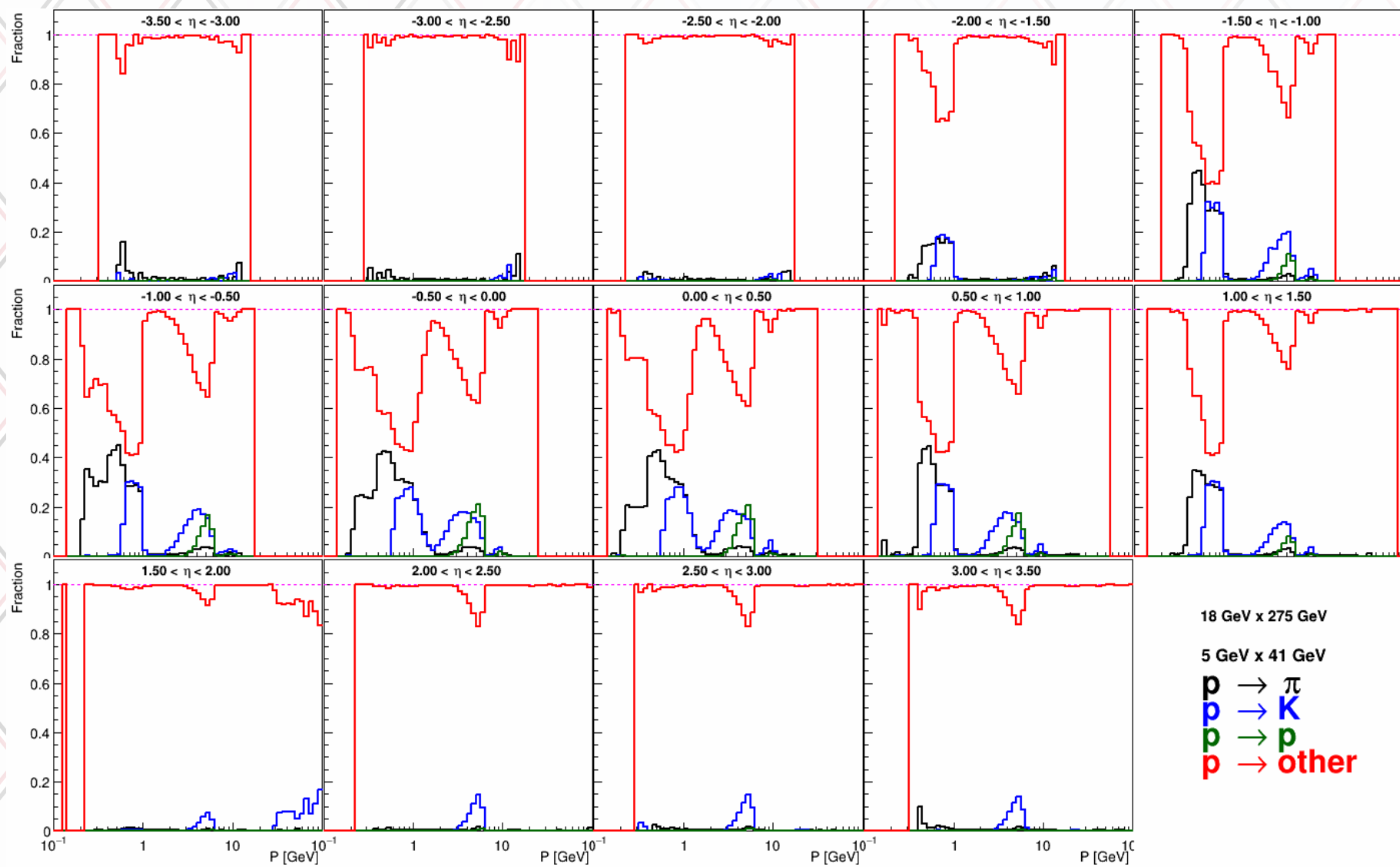
Kaon efficiencies



Proton purities

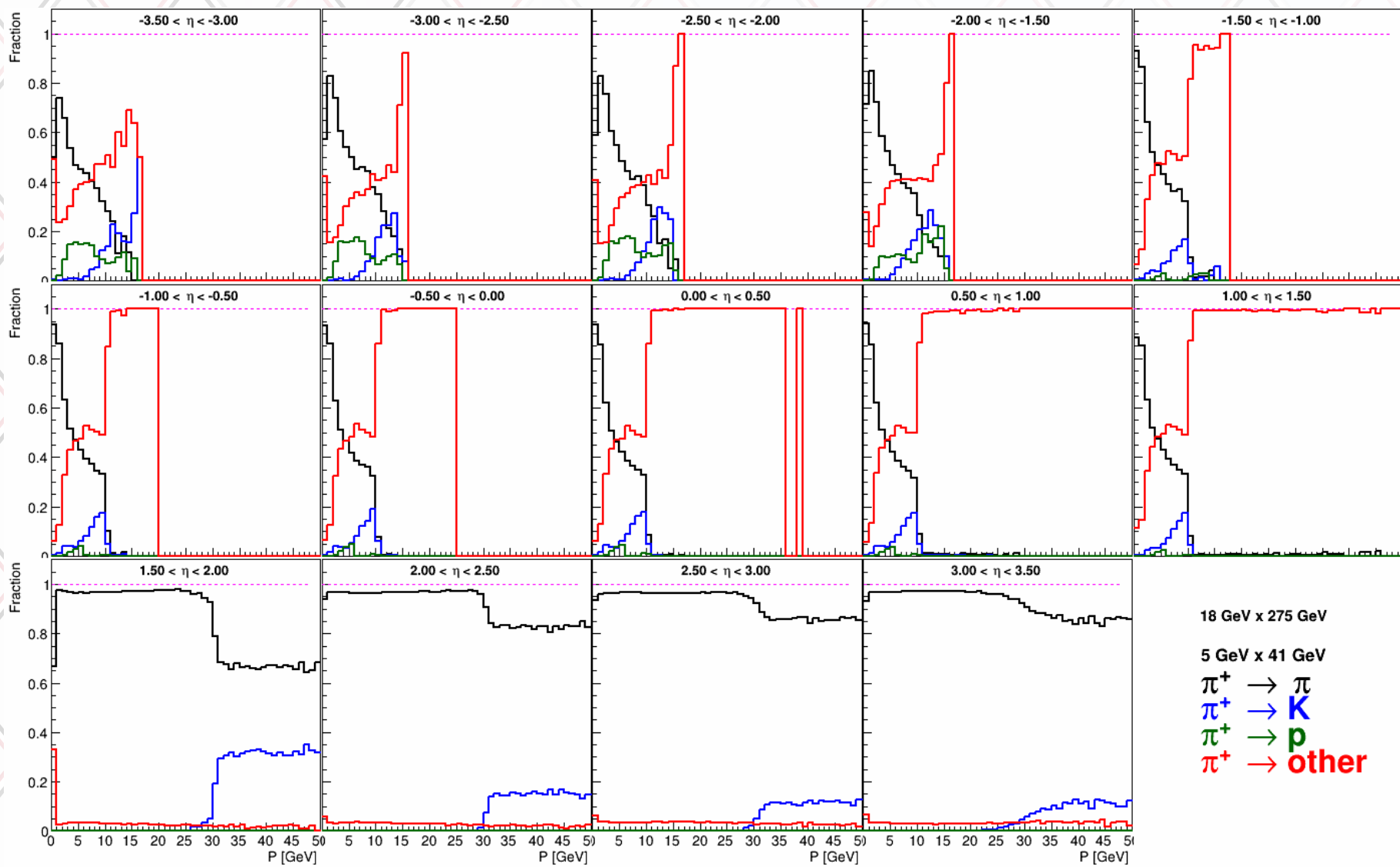


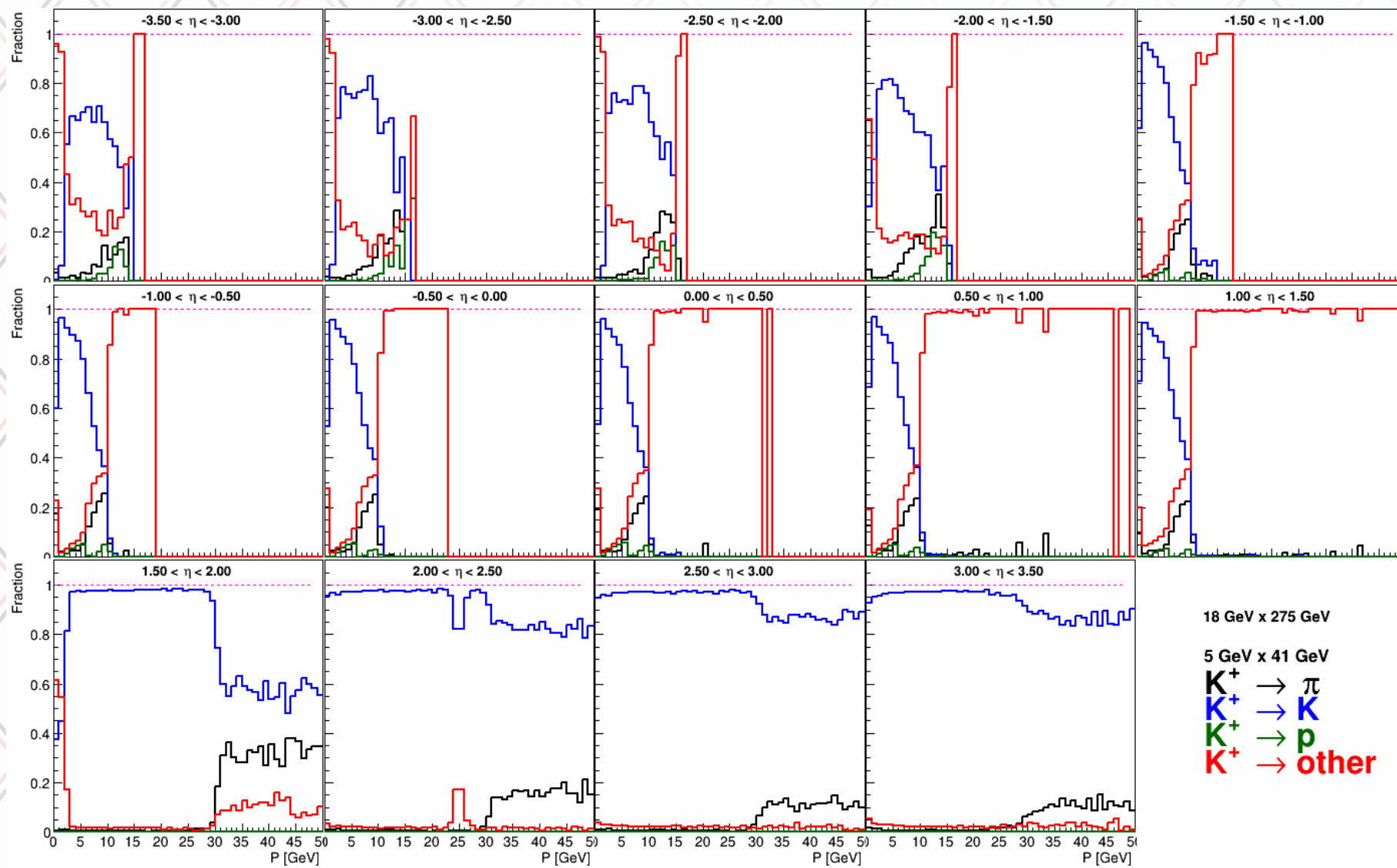
Proton efficiencies

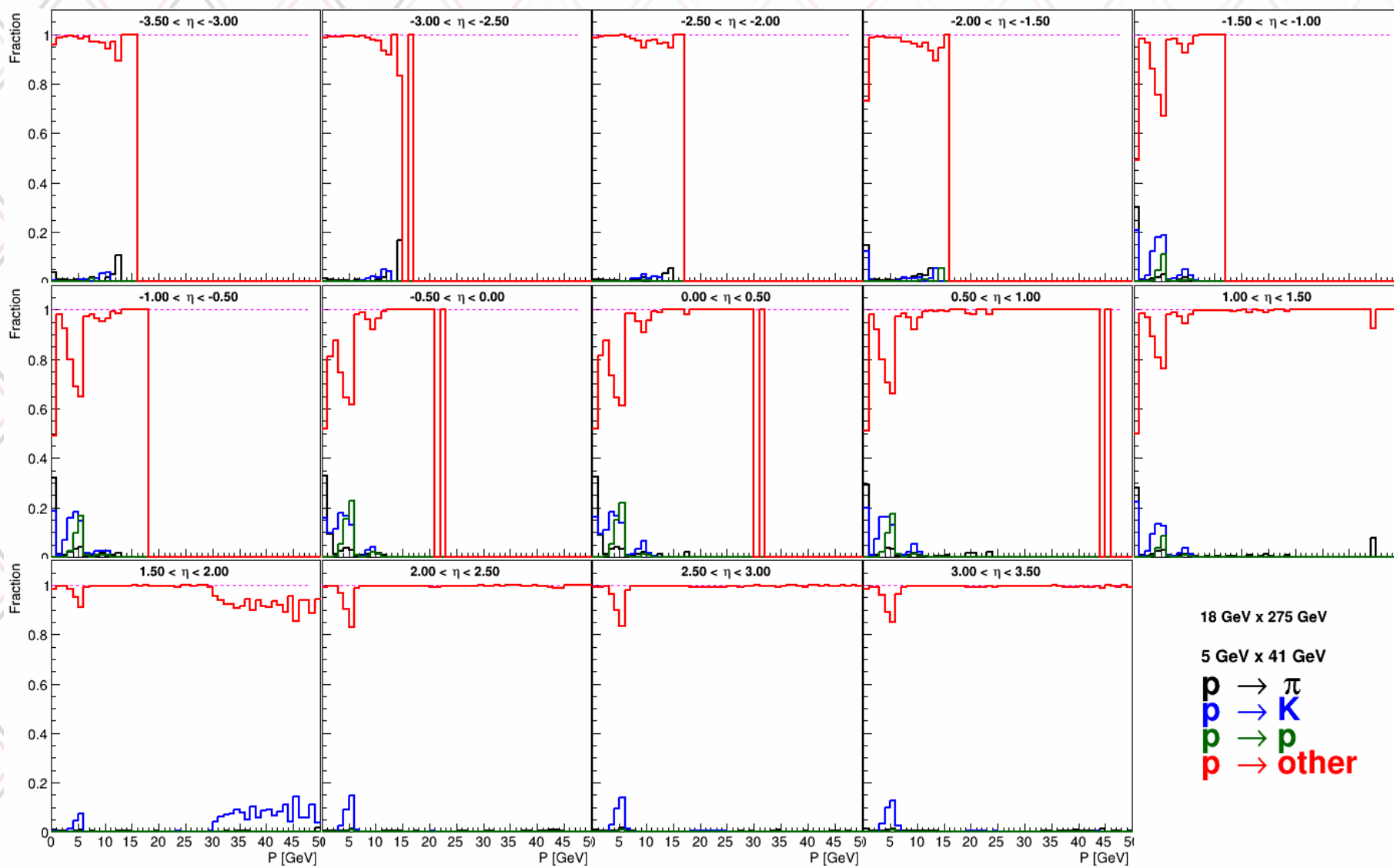


Summary

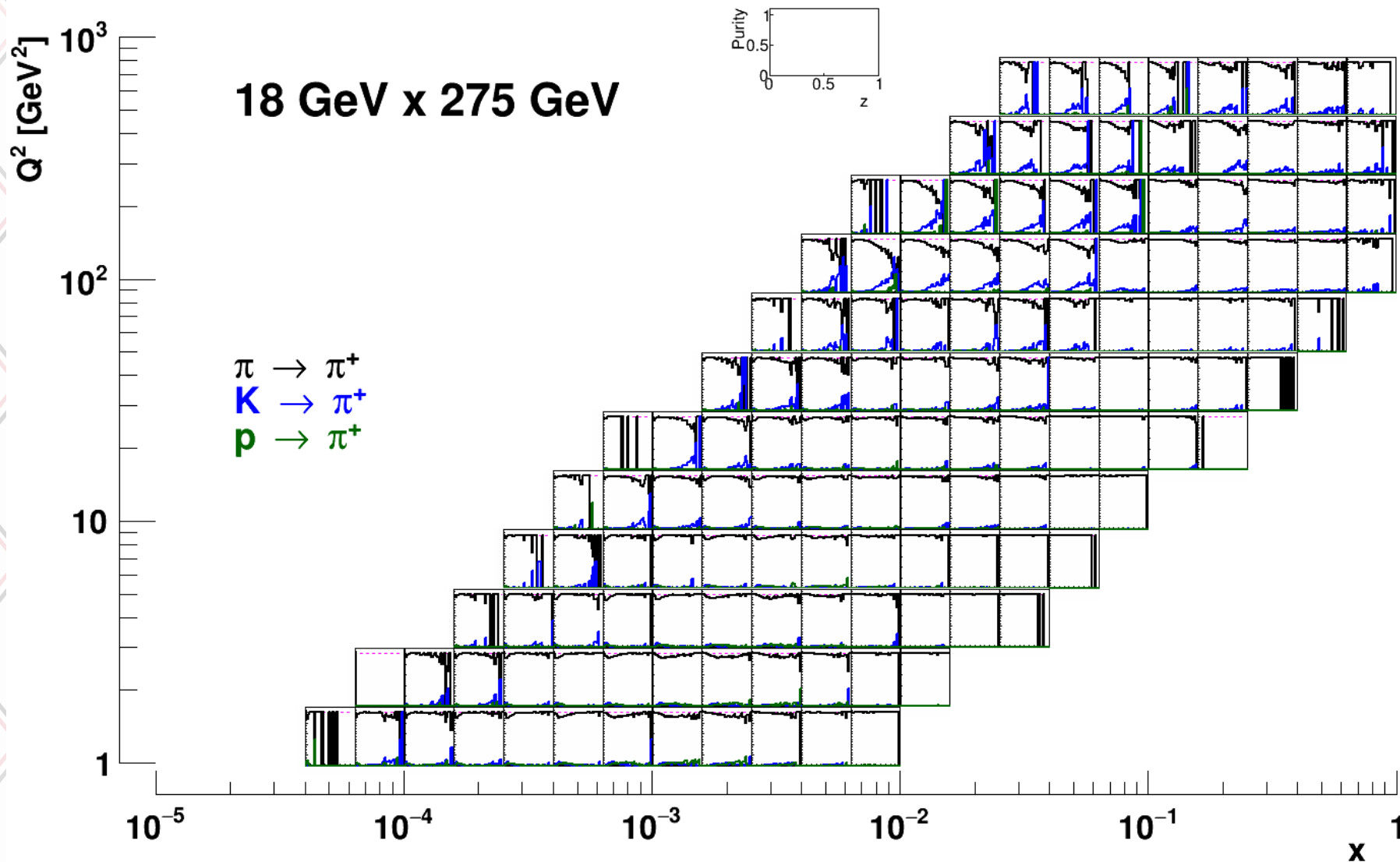
- Purities look good with the lookup tables, but Efficiencies are sometimes far too low, especially in regions:
 - lower eta, $p < 0.8$ GeV
 - Mid-eta, $p > 3-4$ GeV
 - protons
- Not shown (see additional figures): similar figures vs z and p_T in bins of x and Q^2 (physics related) and linear p binning and plotting



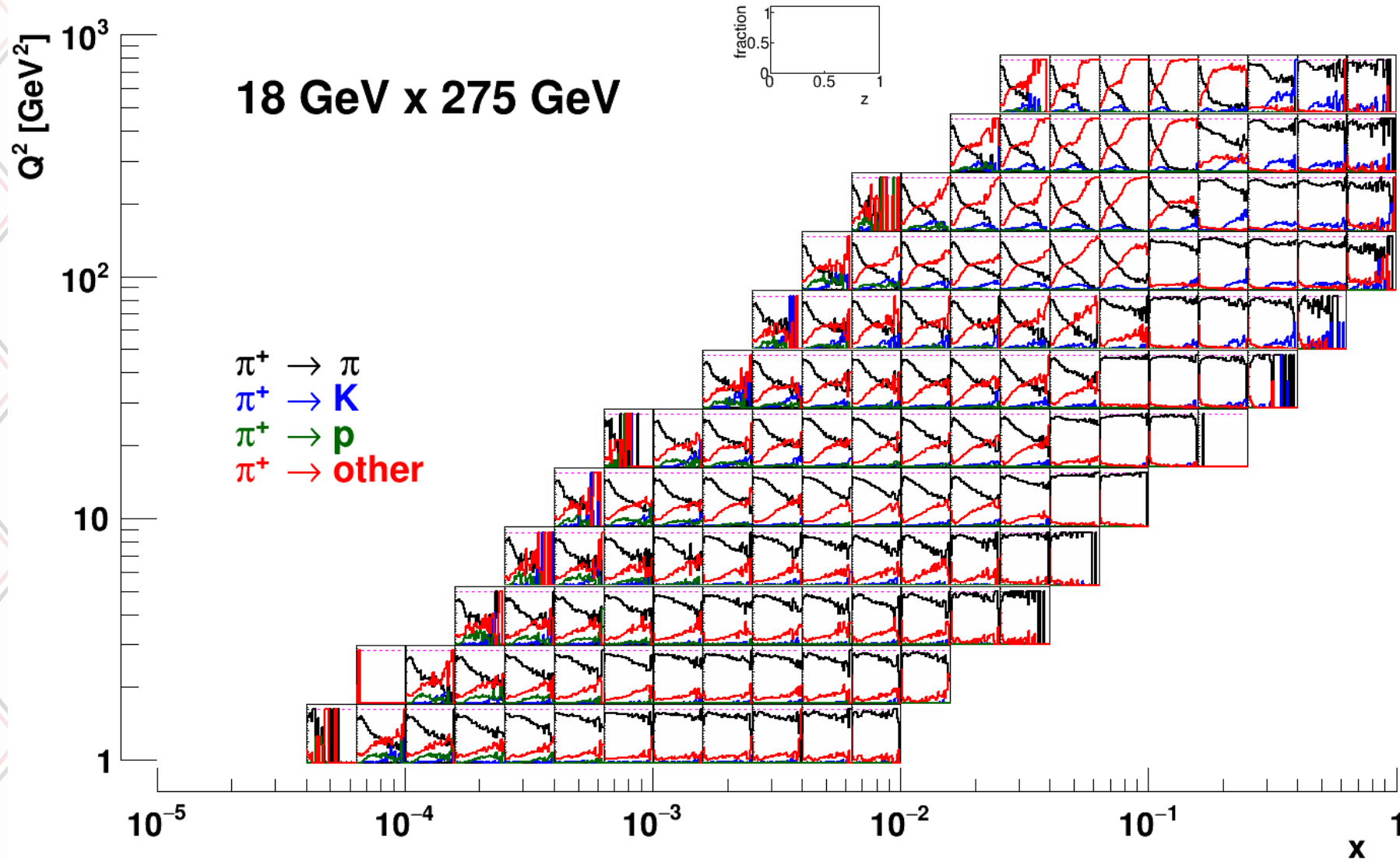




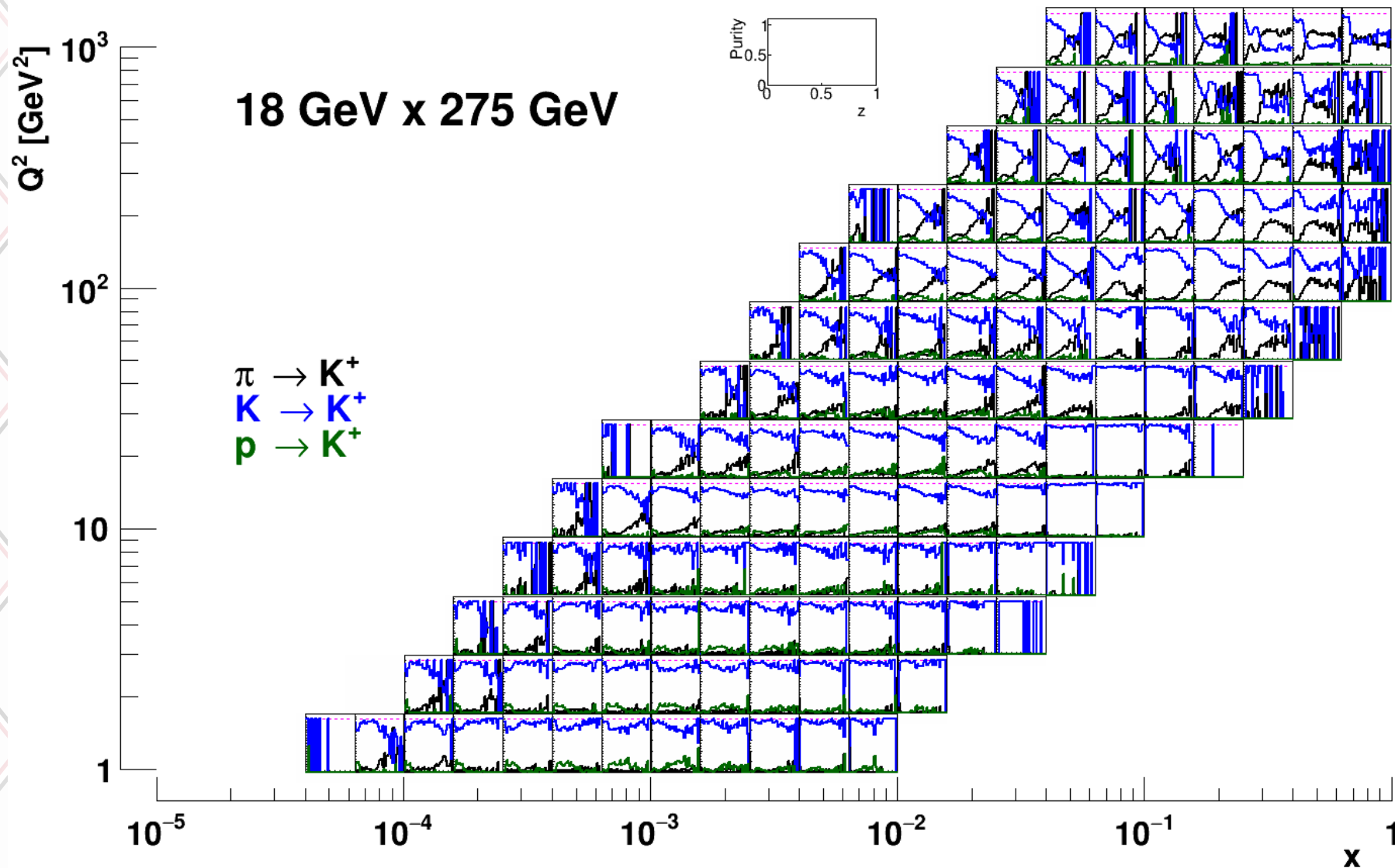
Purities vs z, pions



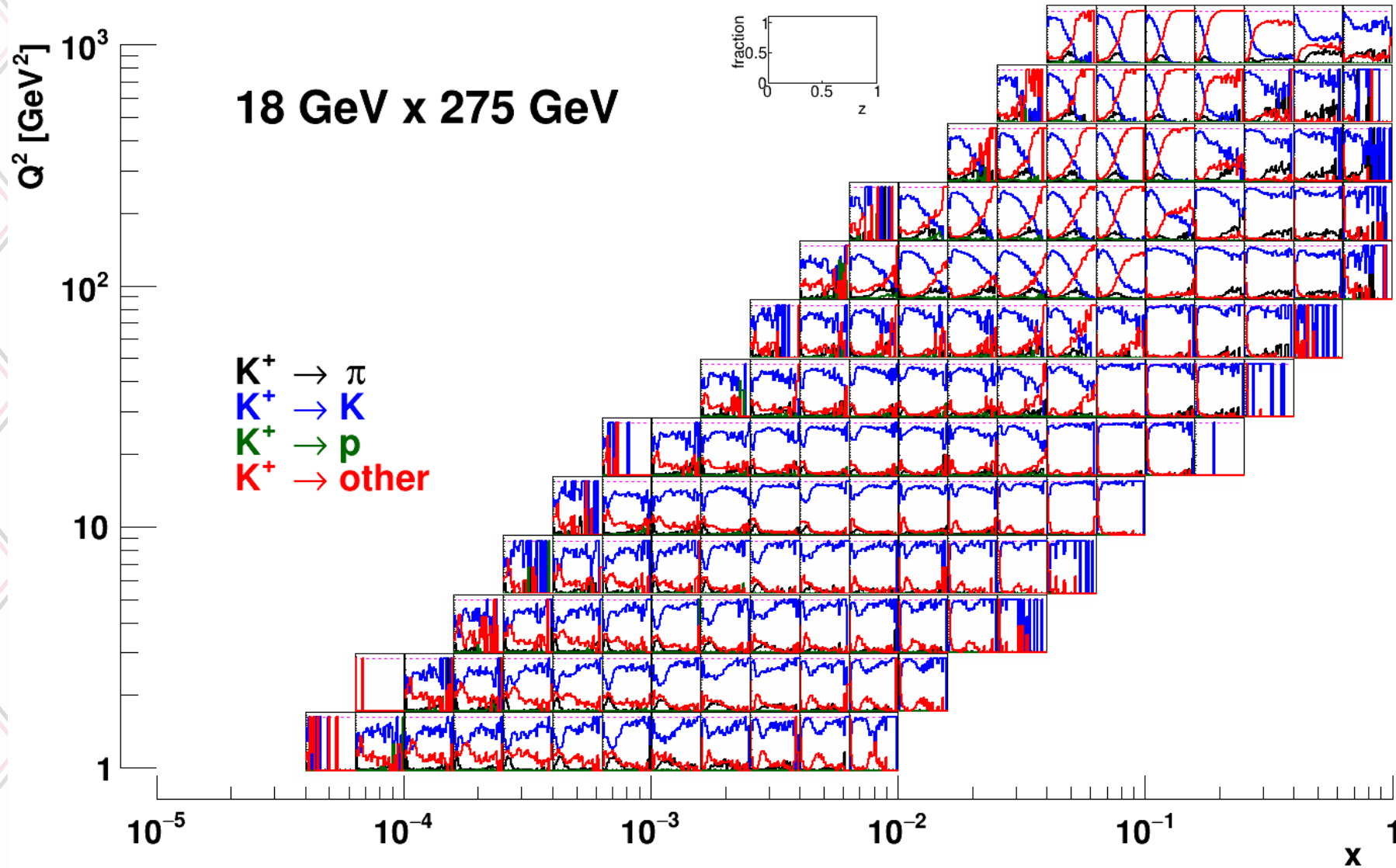
Efficiencies vs z, pions



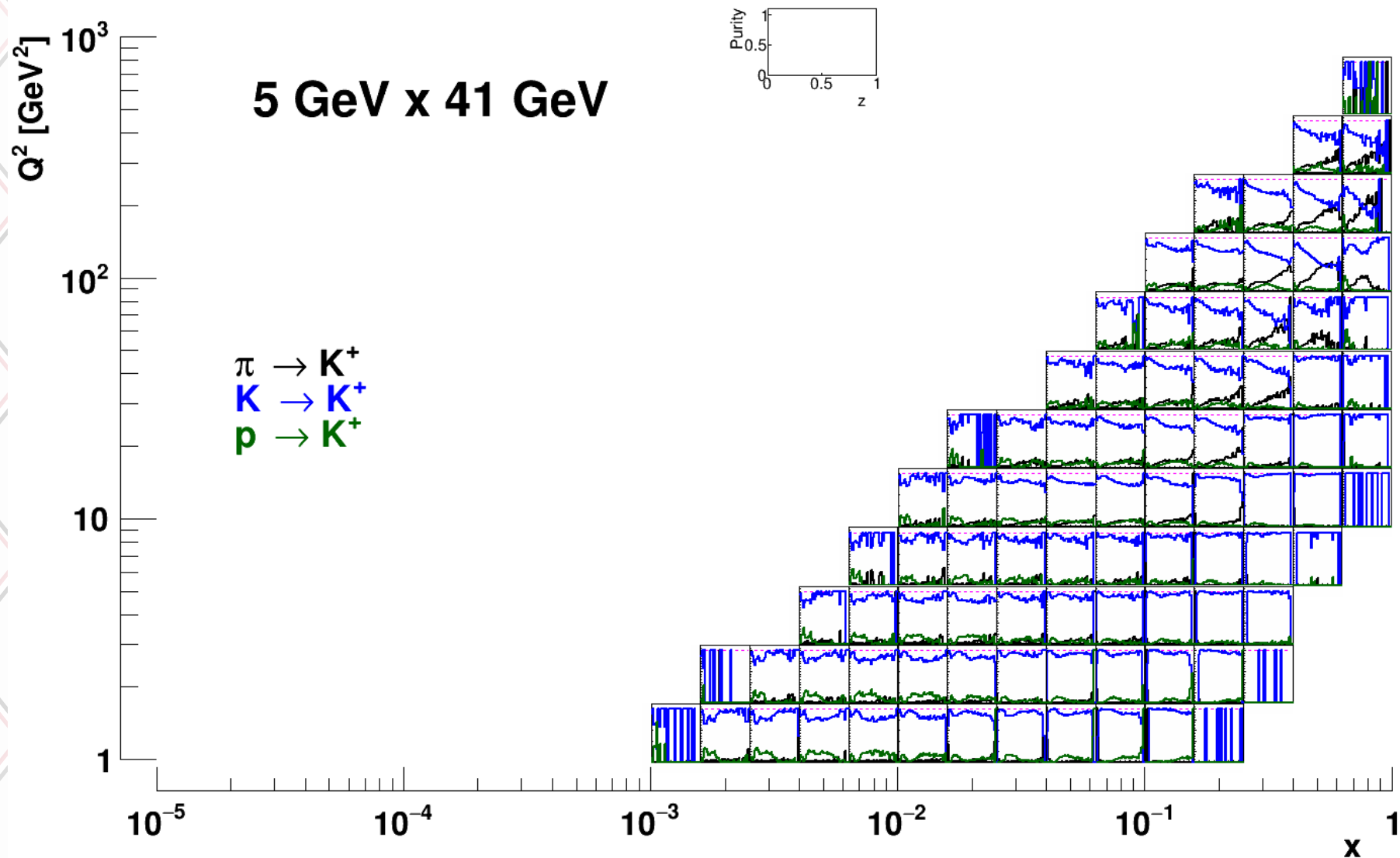
Purities vs z, kaons, 18x275



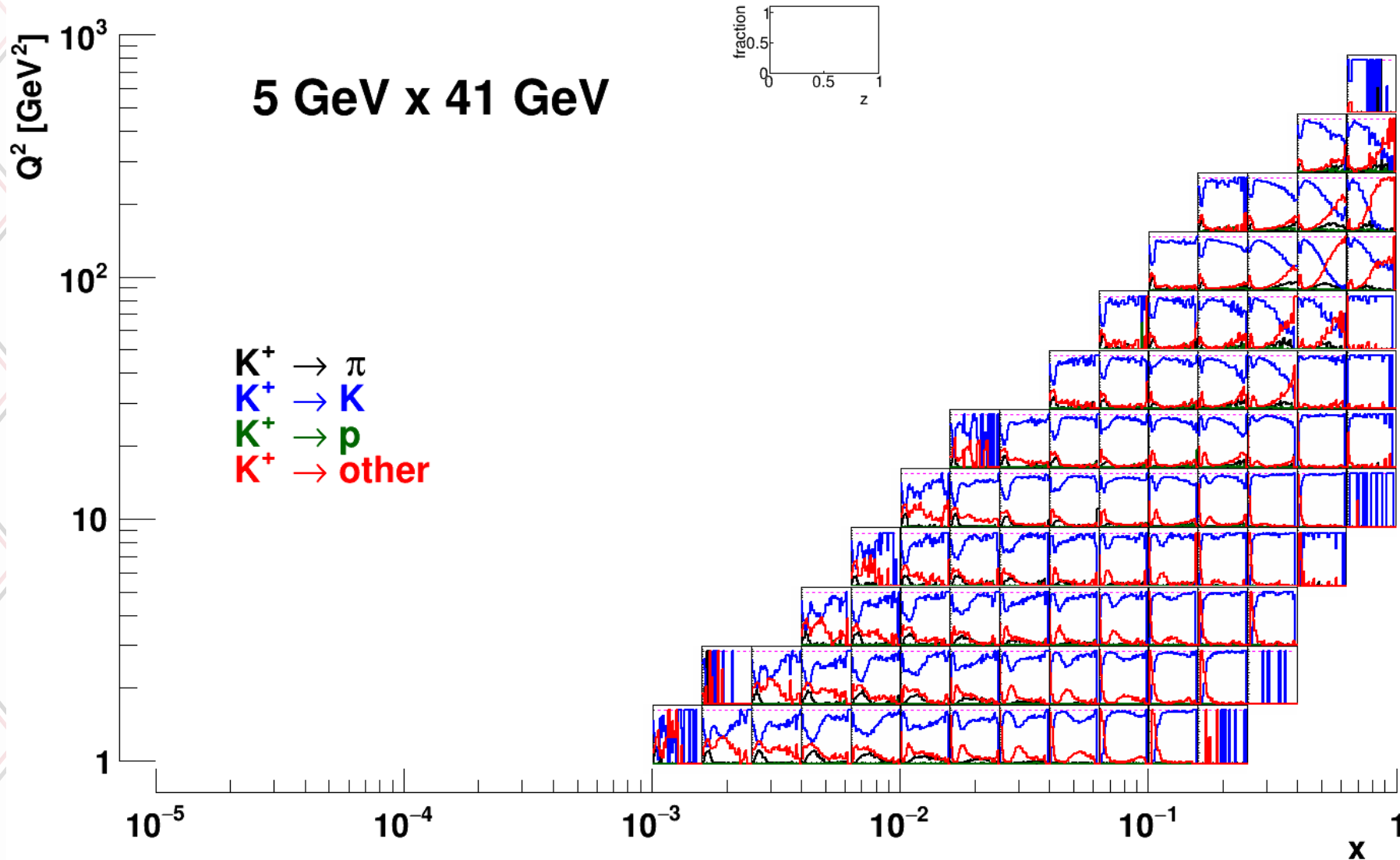
Efficiencies vs z , Kaons



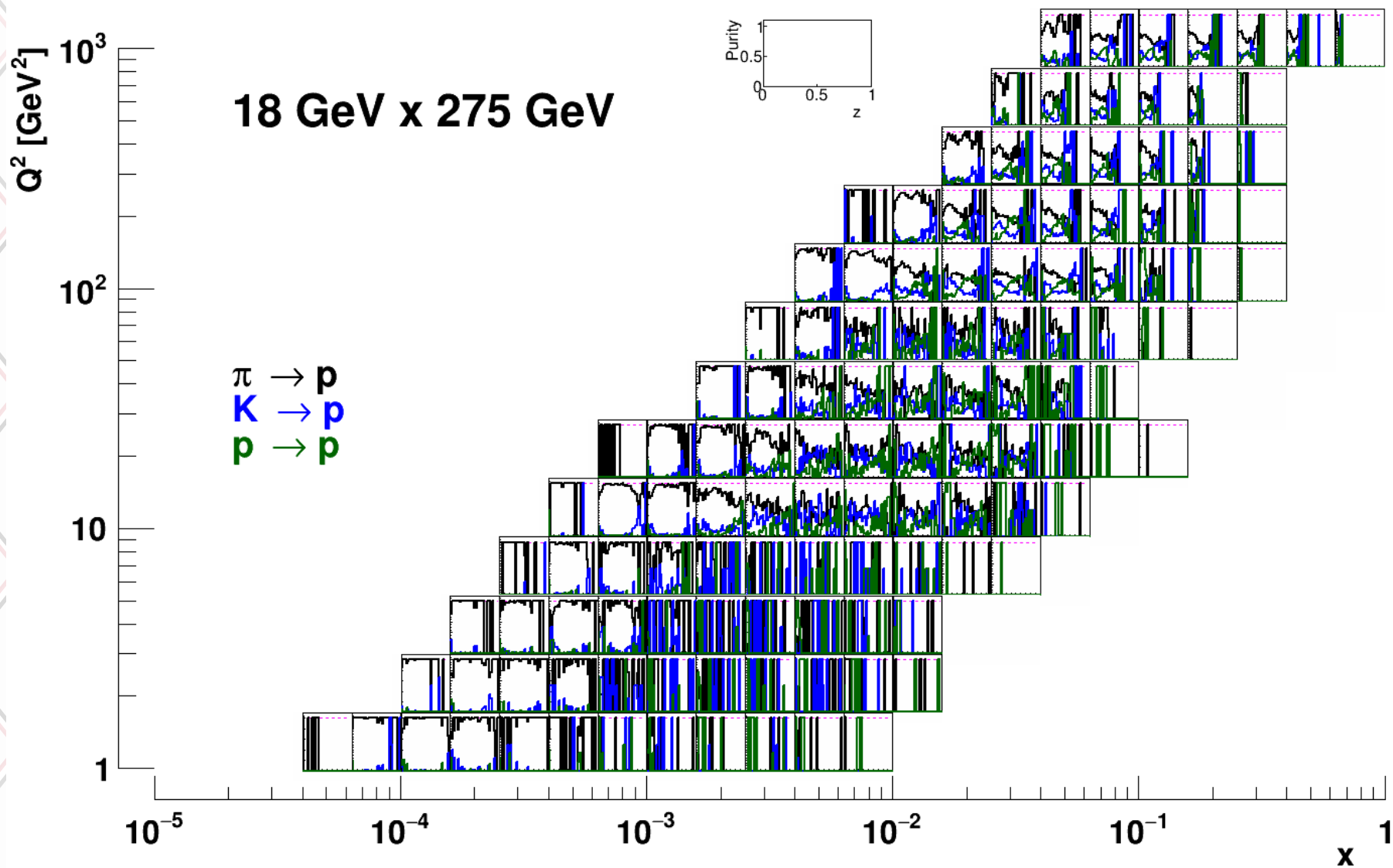
Purities vs z, Kaons, 5x41



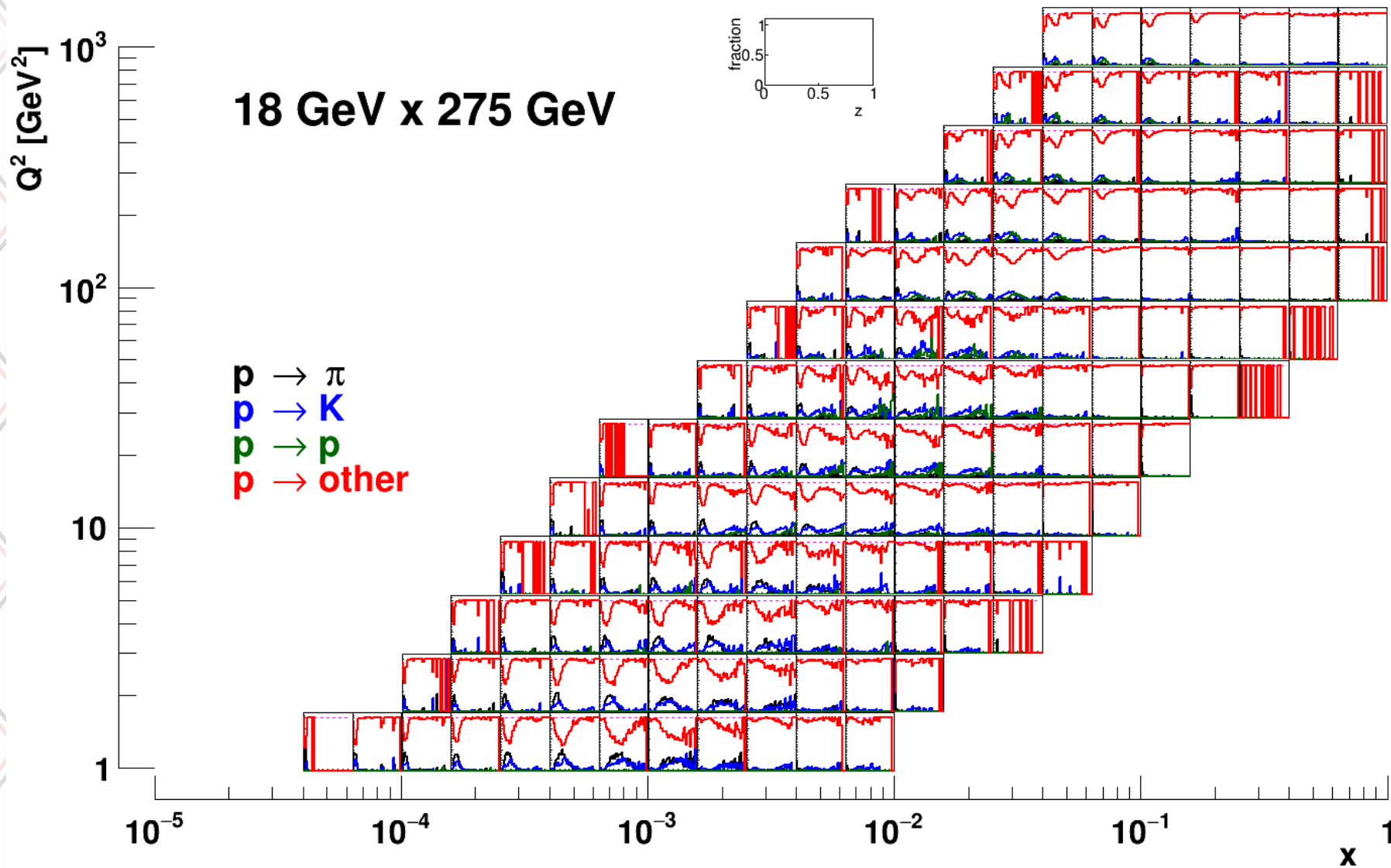
Efficiencies vs z, kaons



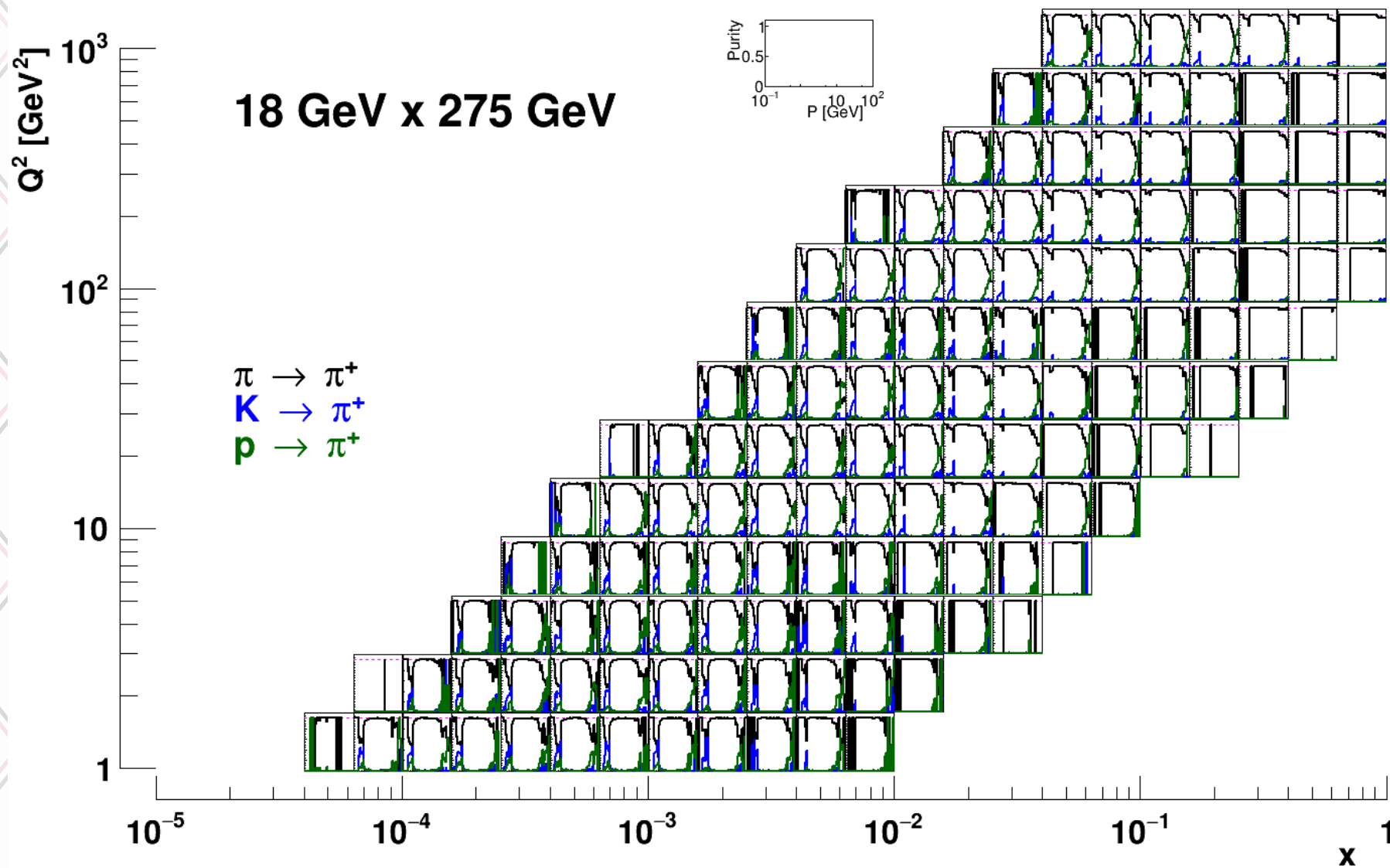
purities vs z, protons



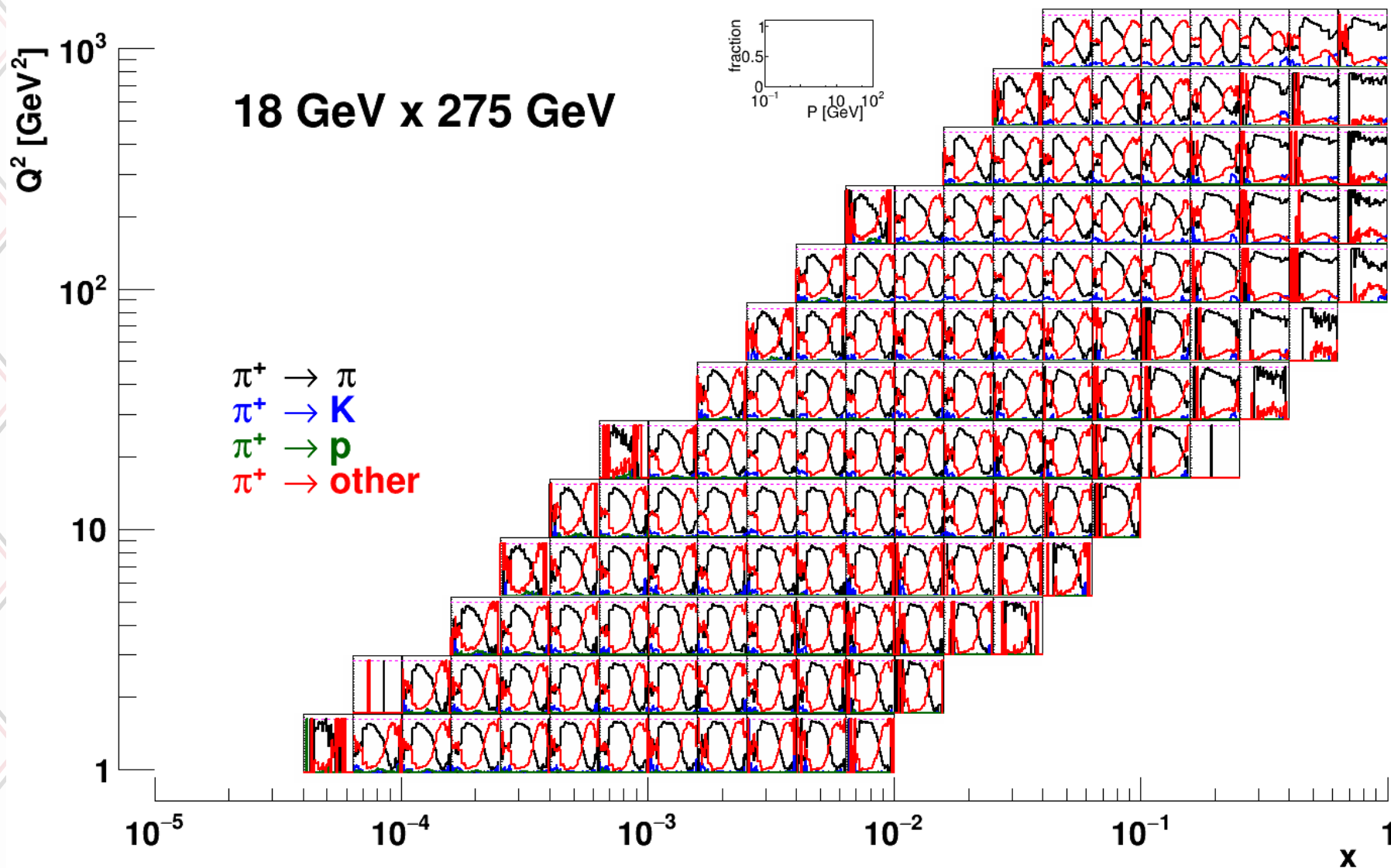
Efficiencies vs z, protons



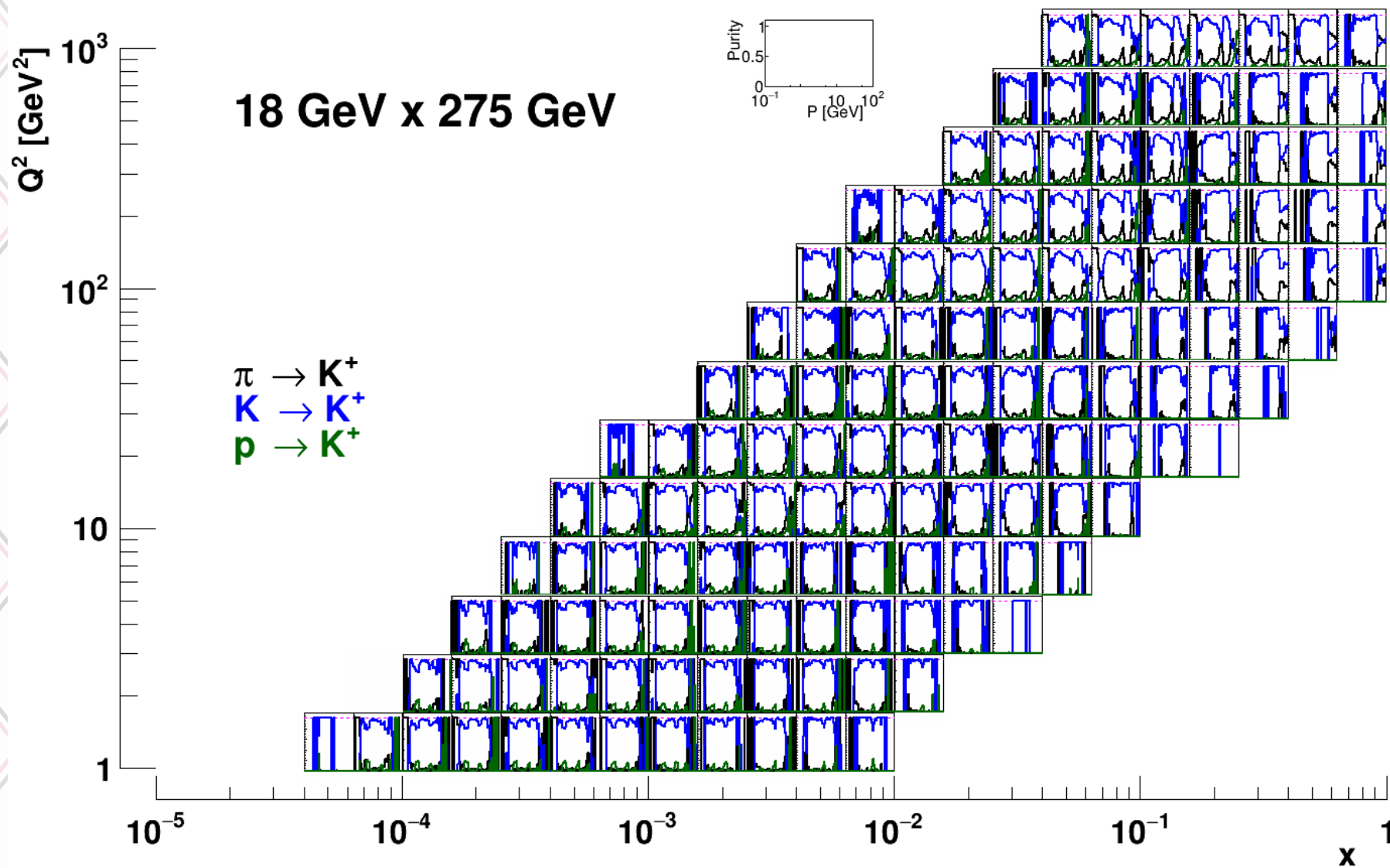
Pion purities v p



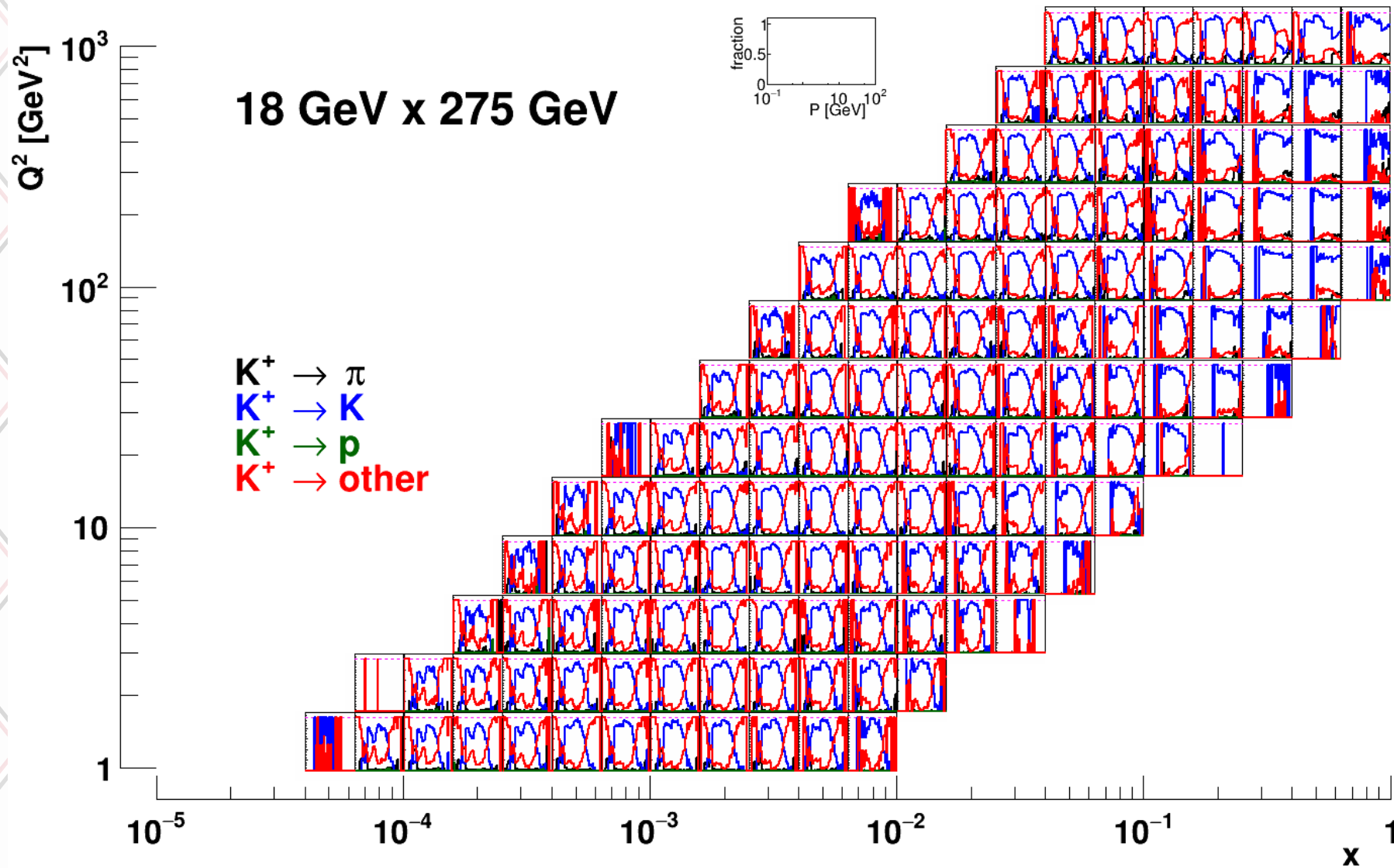
Efficiencies vs p



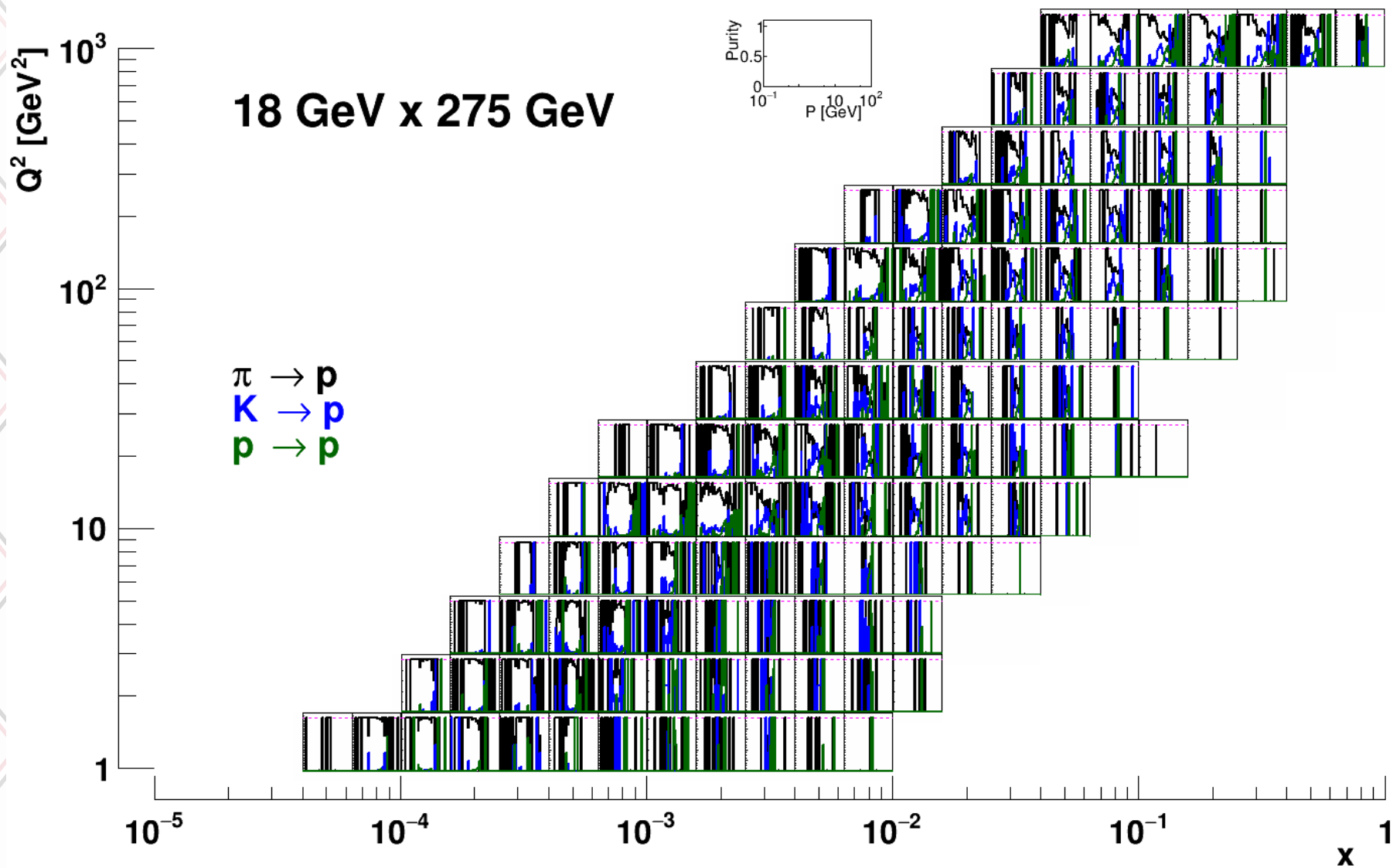
Kaon purities vs p



Kaon efficiencies vs p



Proton purities vs p



Proton efficiencies vs p

