

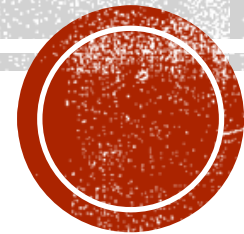
# Particle production studies for pfRICH

Jan Vanek

BNL

pfRICH meeting

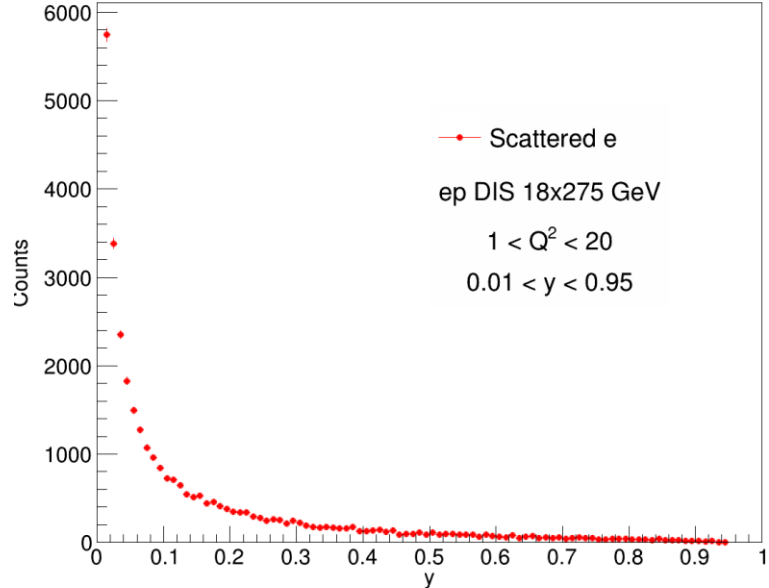
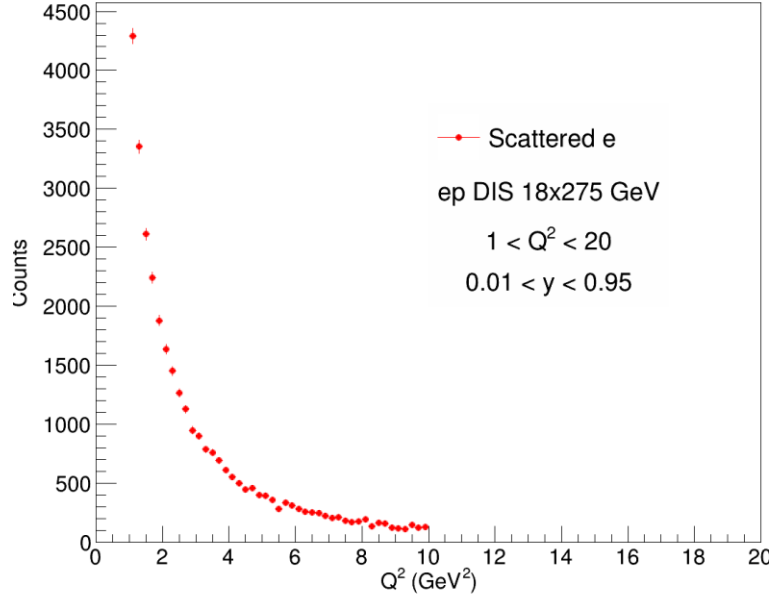
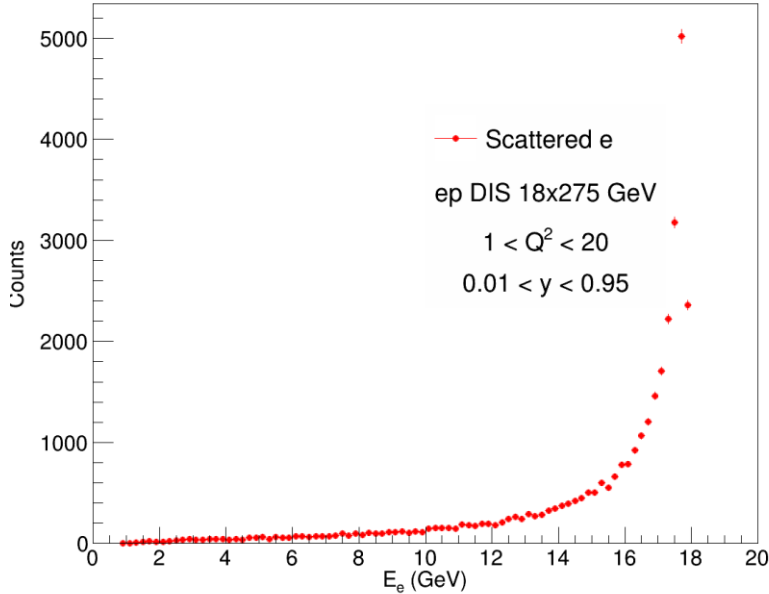
12/07/2022



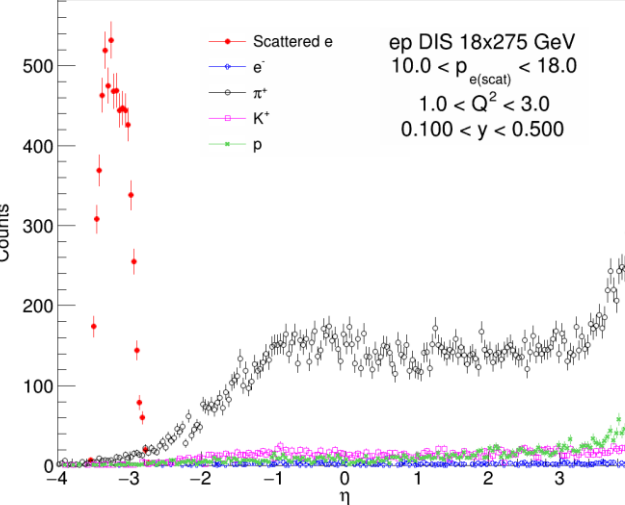
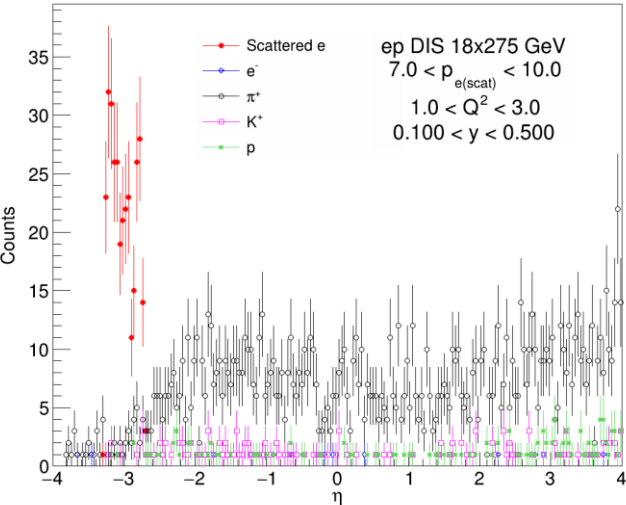
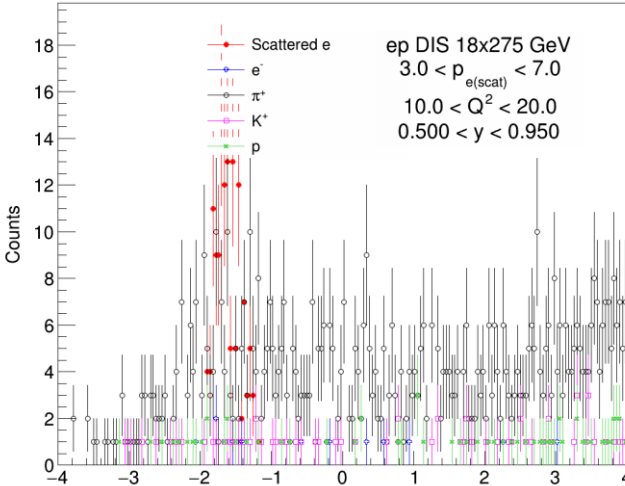
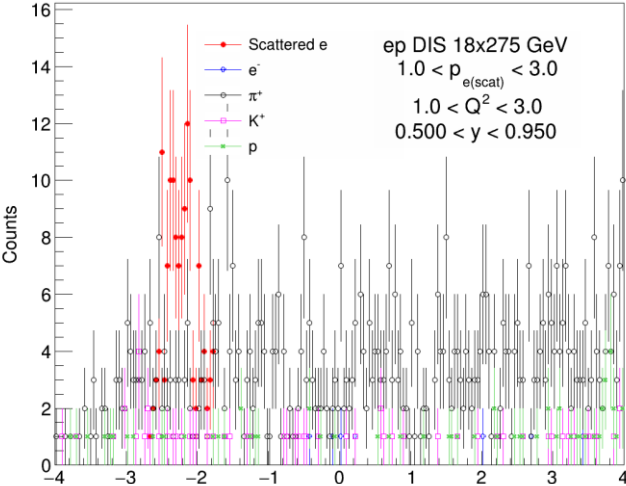
# OVERVIEW

- Particle production in ep DIS as a function of  $\eta$ 
  - Multiple  $Q^2$  and  $y$  (inelasticity) bins
  - Scattered electron
  - Electrons
  - Pions
  - Kaons
  - Protons

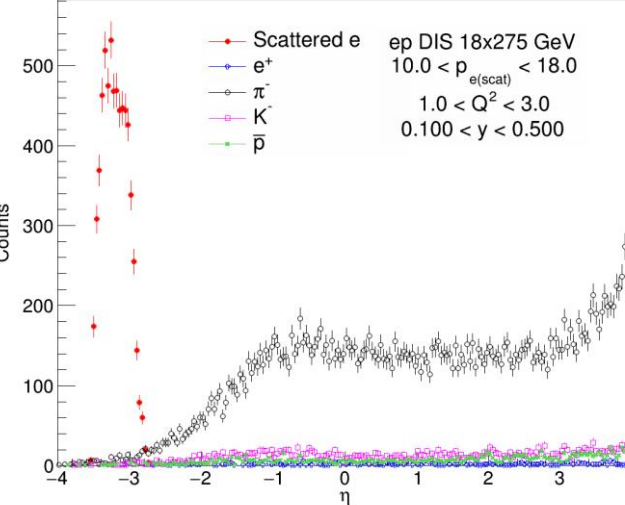
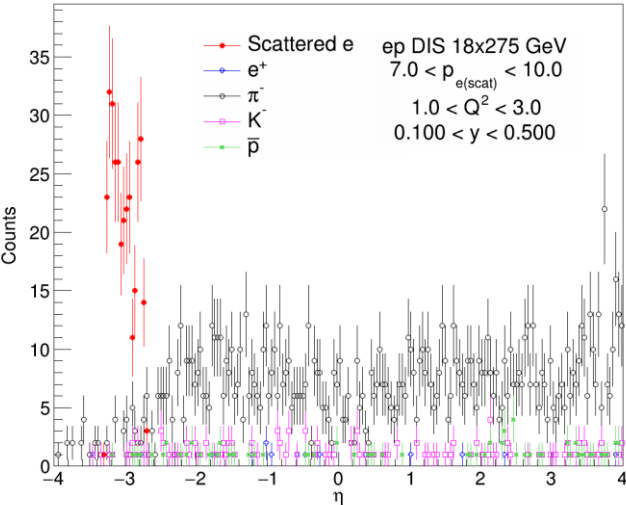
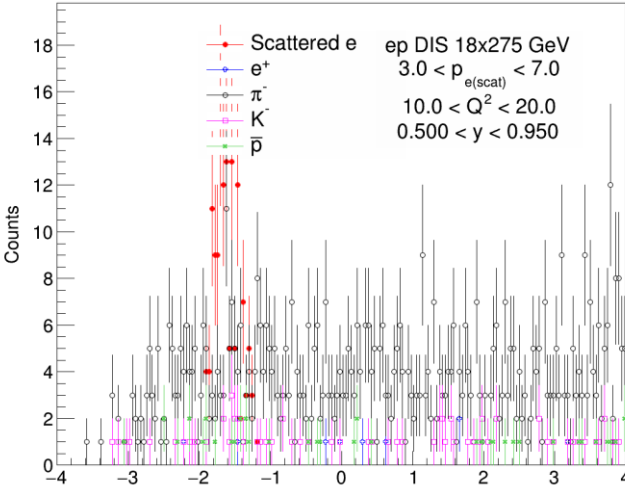
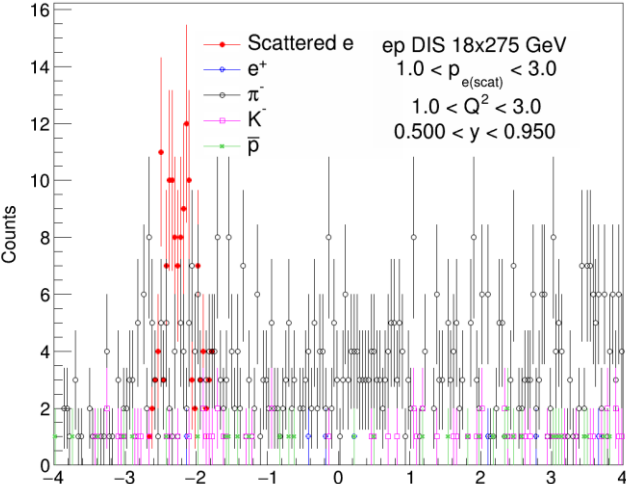
# SCATTERED ELECTRON DISTRIBUTIONS



# SCATTERED ELECTRON VS. ANTIPARTICLES



# SCATTERED ELECTRON VS. ANTIPARTICLES



# SUMMARY

- First look at particle production vs. scattered electron in multiple  $Q^2$ ,  $y$  and momentum bins
- Need to run on larger simulation sample in order to see low momentum
- Will add other collision energies

**THANK YOU FOR ATTENTION**