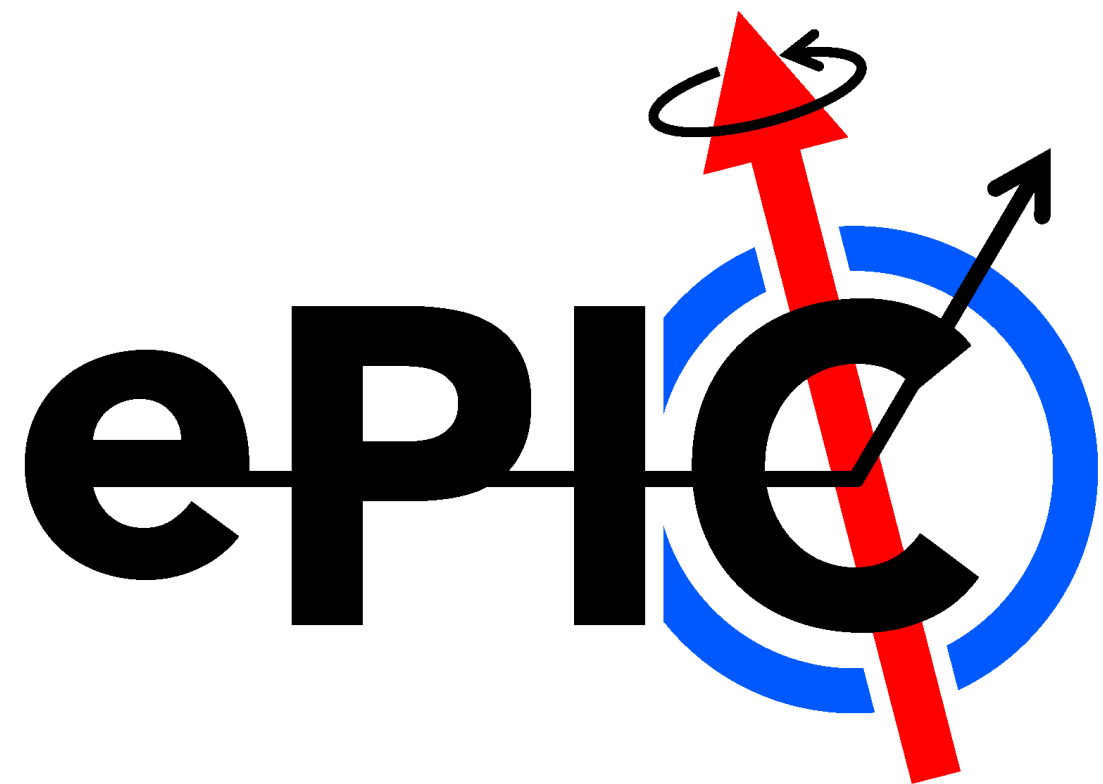


# Inclusive physics pre-TDR update

Tyler Kutz

ePIC analysis meeting

September 27, 2024

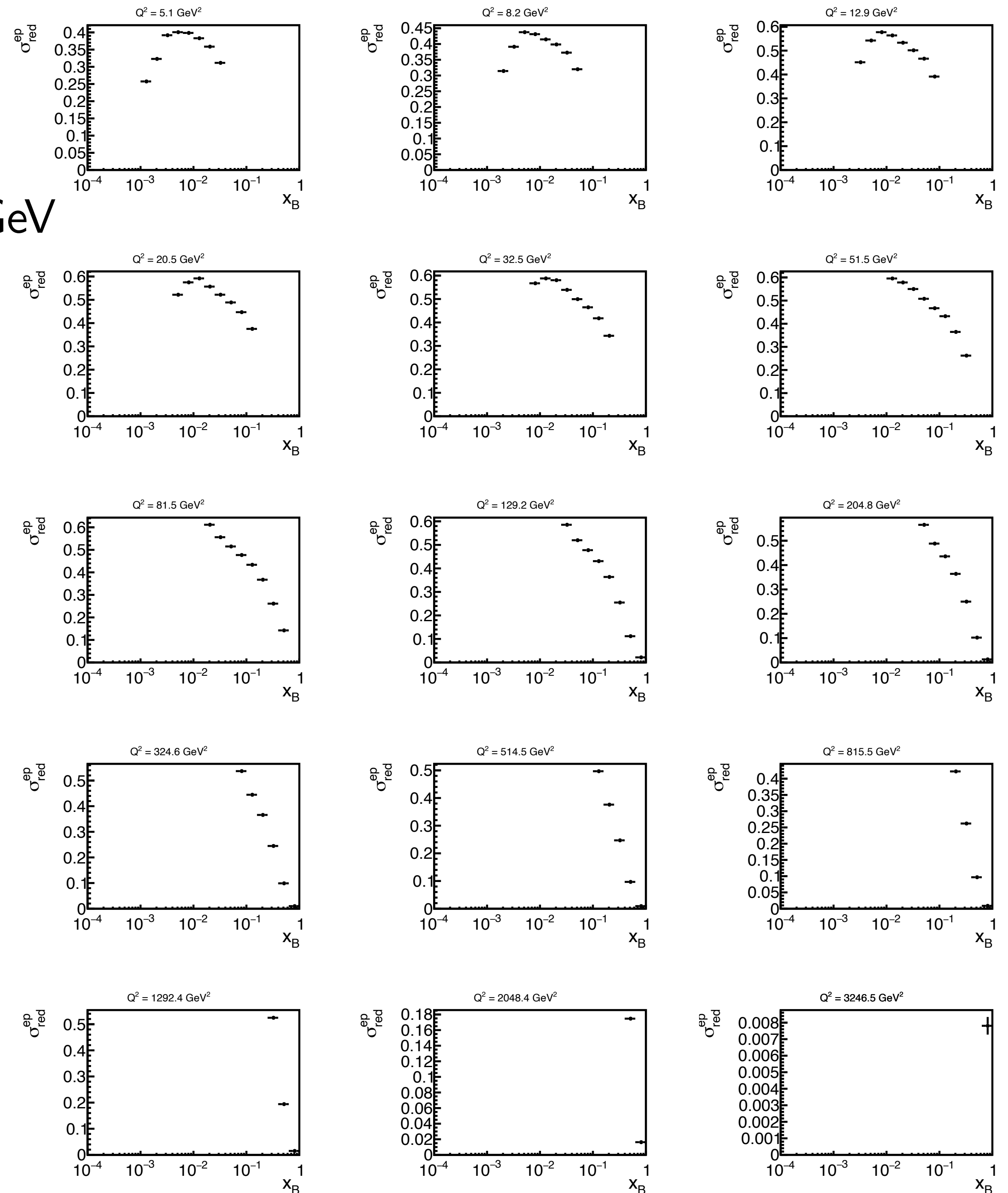


# Inclusive NC reduced cross sections

ePIC  
10x100 GeV  
24.06.0

Changes before final draft:

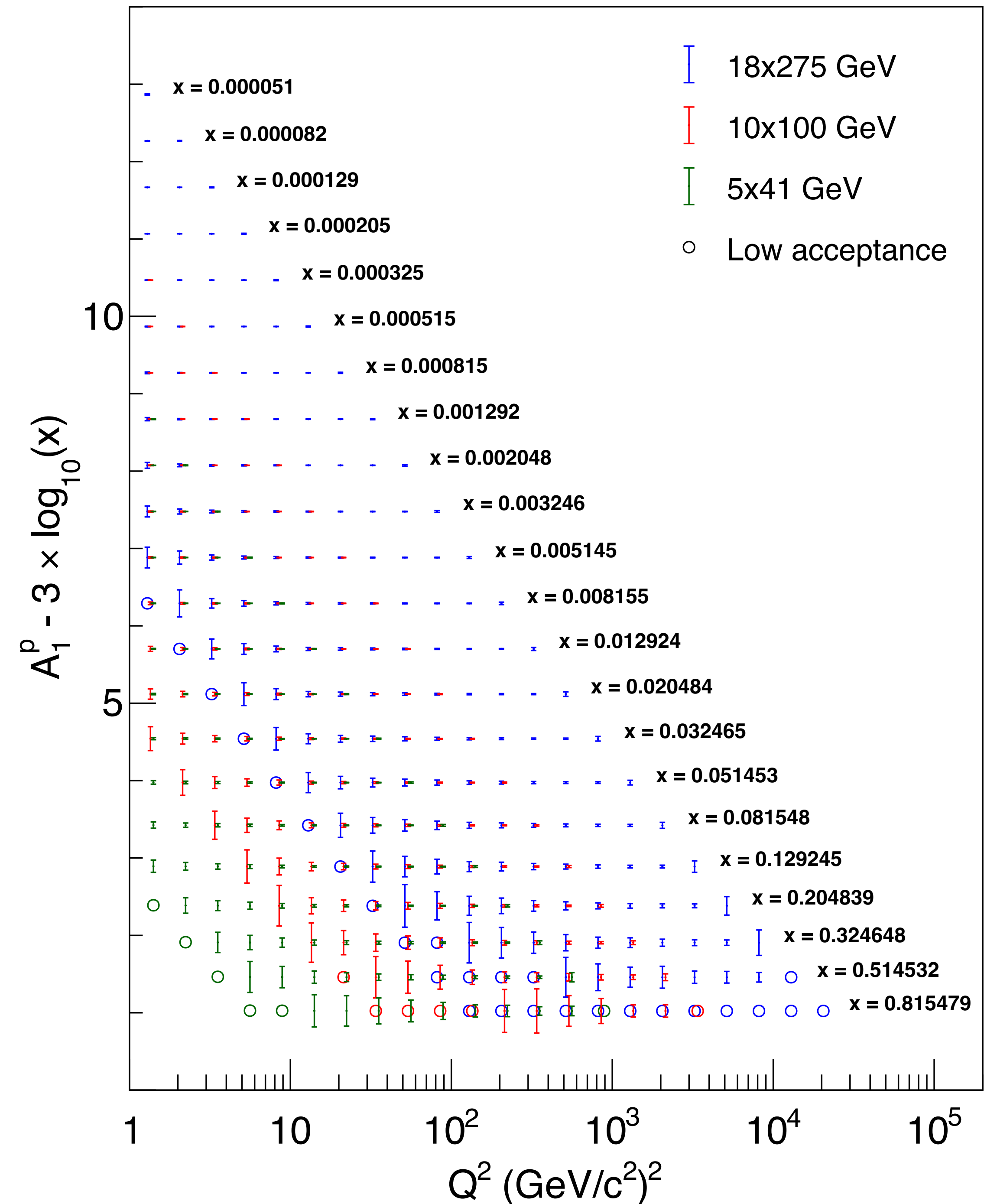
- Update to campaign 24.10.X
- Improve figure aesthetic (merged axes,  $Q^2$  label inside frame, etc.)
- Debug outlier points



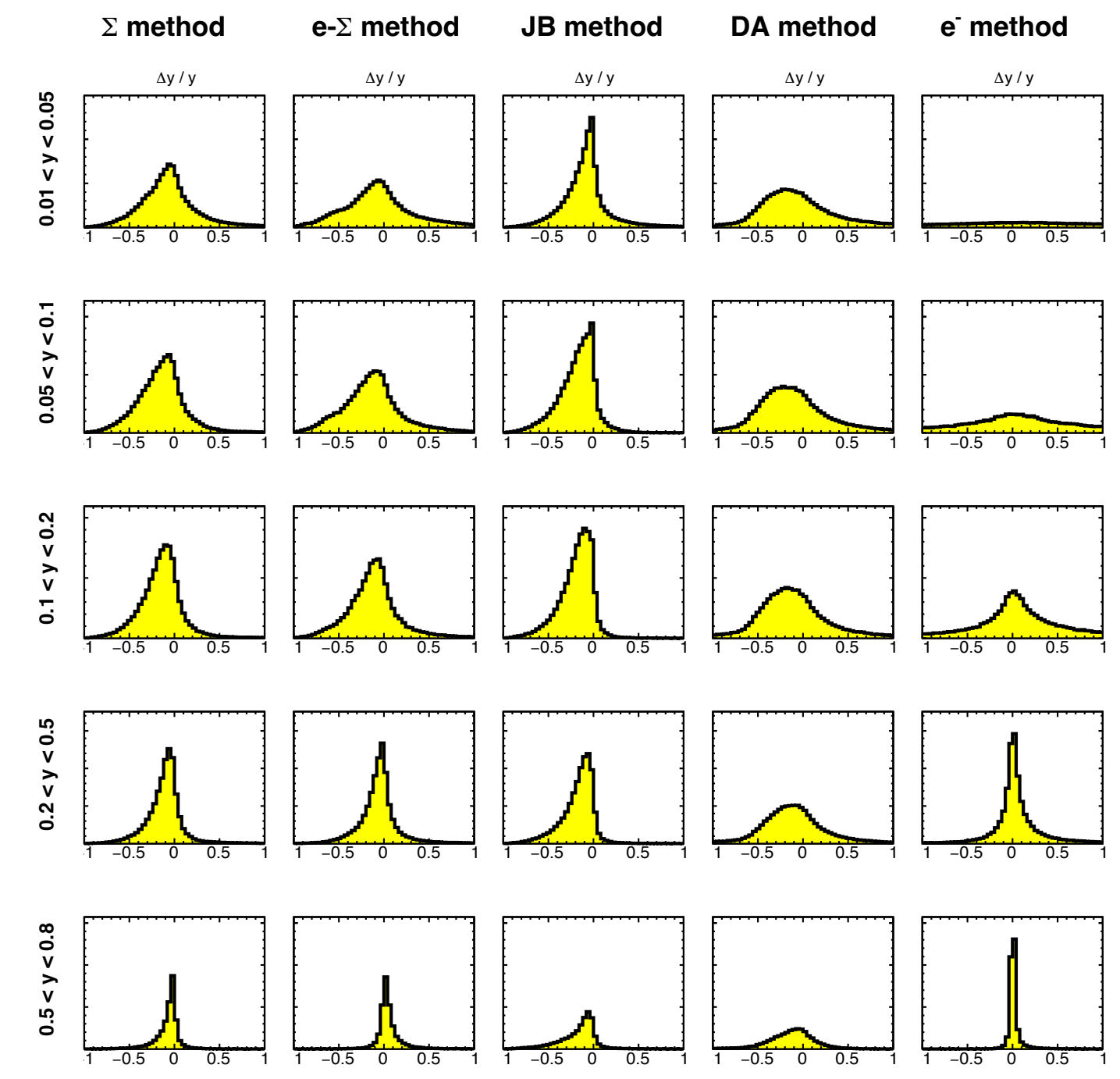
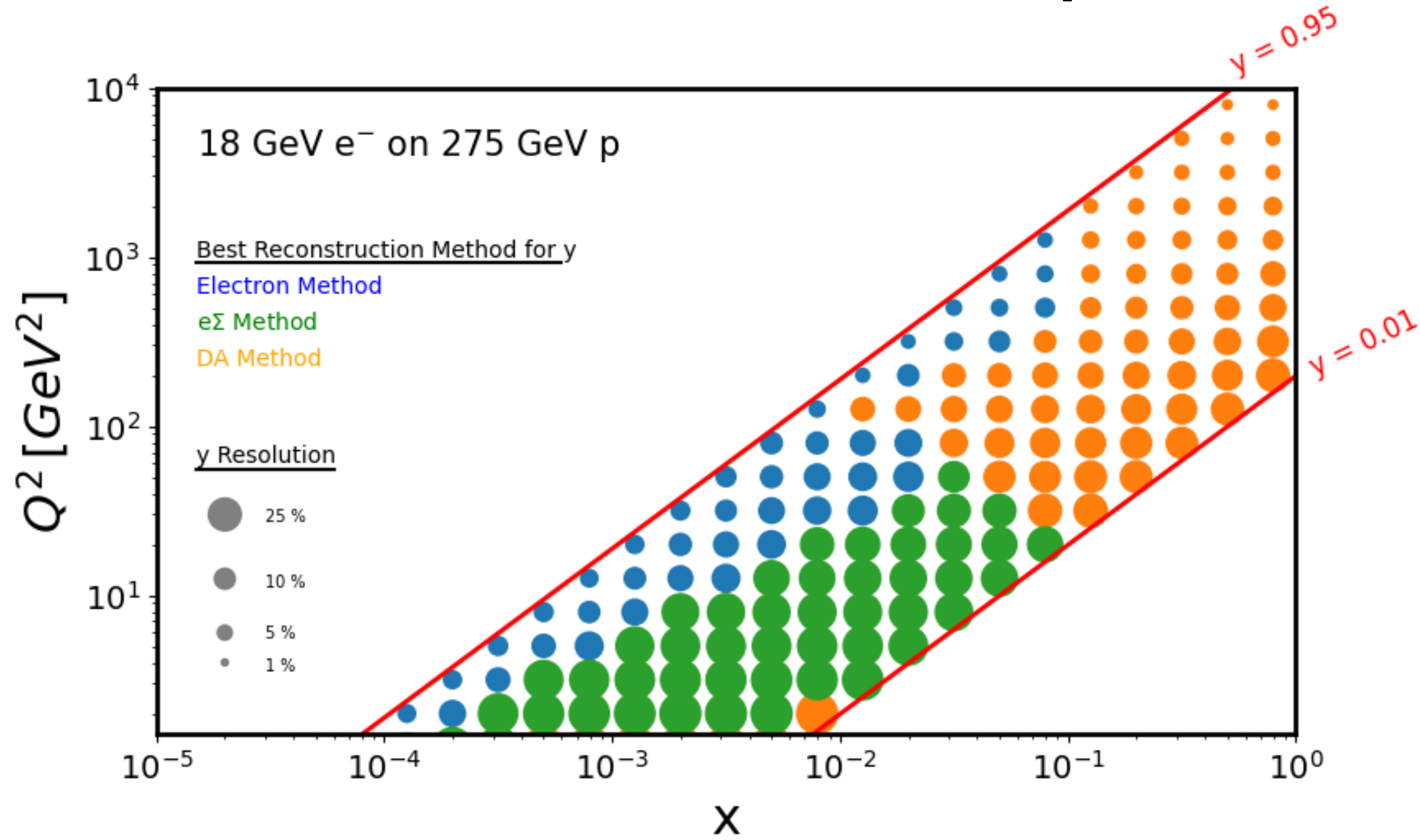
# Double-spin asymmetry

Changes before final draft:

- Update to campaign 24.10.X
- Apply kinematic cuts and use preliminary eID
- Possible changes based on previous input:
  - Use multiplicative (vs. additive)  $x$  shift
  - Make  $(x, Q^2)$  precision map instead of plotting  $A_1^p$

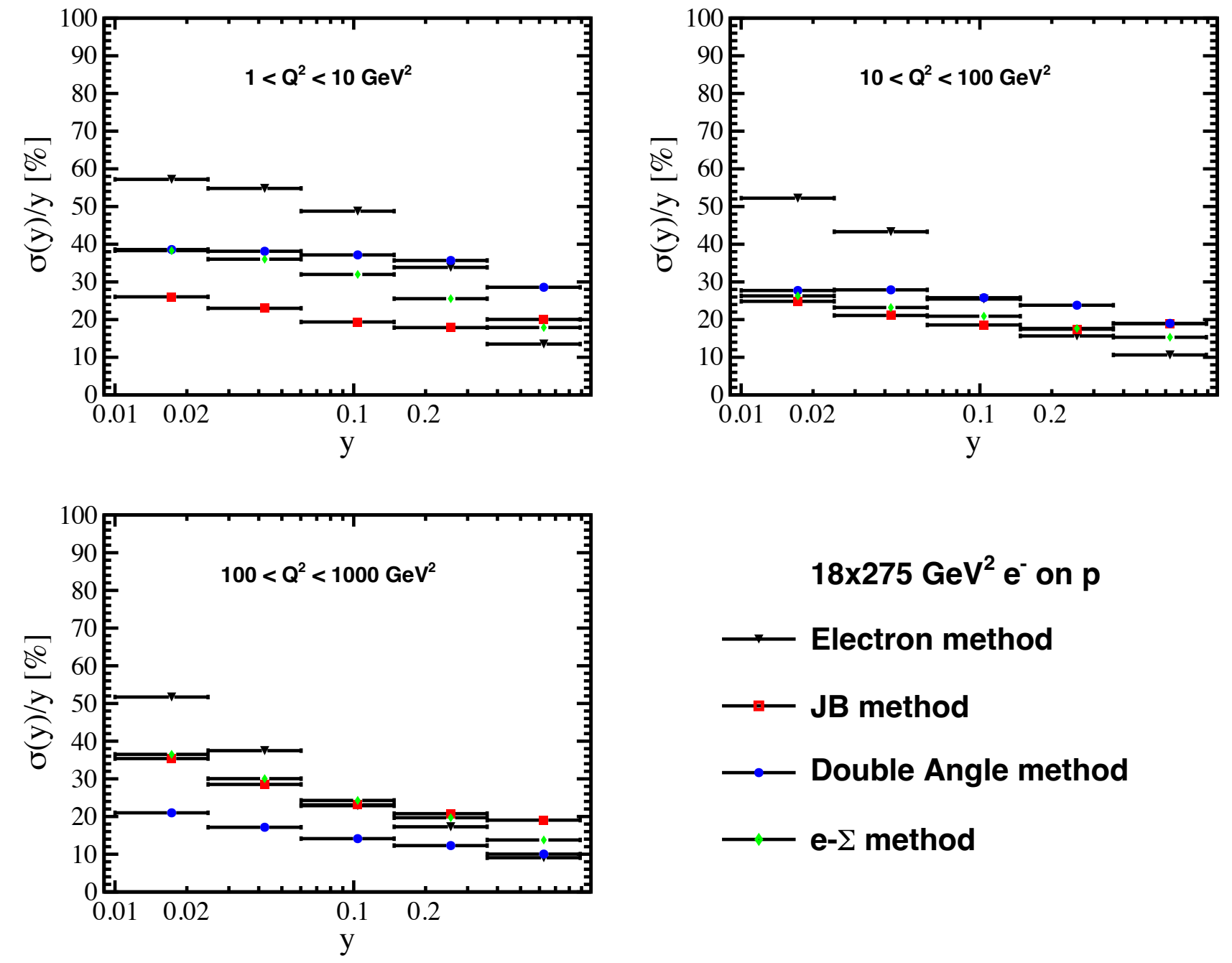


# Kinematic reconstruction performance



Changes before final draft:

- Update to campaign 24.10.X
- Possibly change binning (depending on which plot[s] are used)
- Use ECAL?



# Overleaf status

- Nucleon mass
  - In-progress: reduced cross section plots and accompanying text
- Nucleon spin
  - In-progress:  $A_1^p$  plot and accompanying text
- Best place for kinematic reconstruction performance?
- Nuclear modification of PDFs?