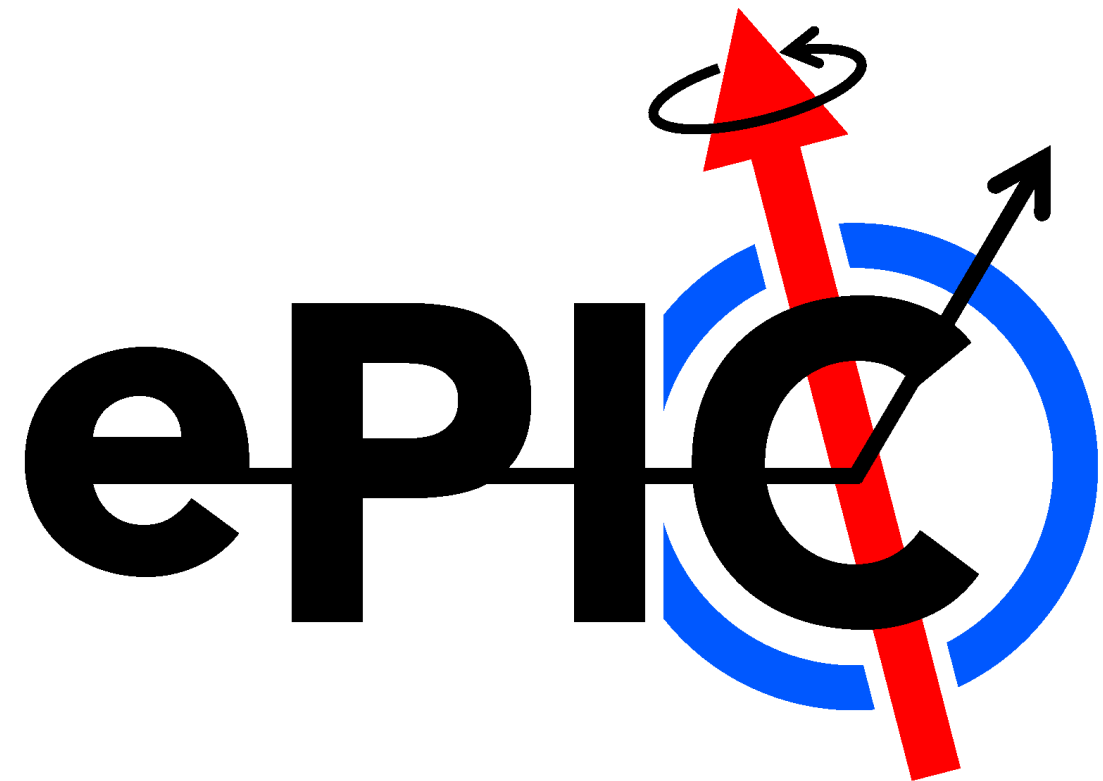


Inclusive physics update

Tyler Kutz

ePIC analysis meeting

June 7, 2024



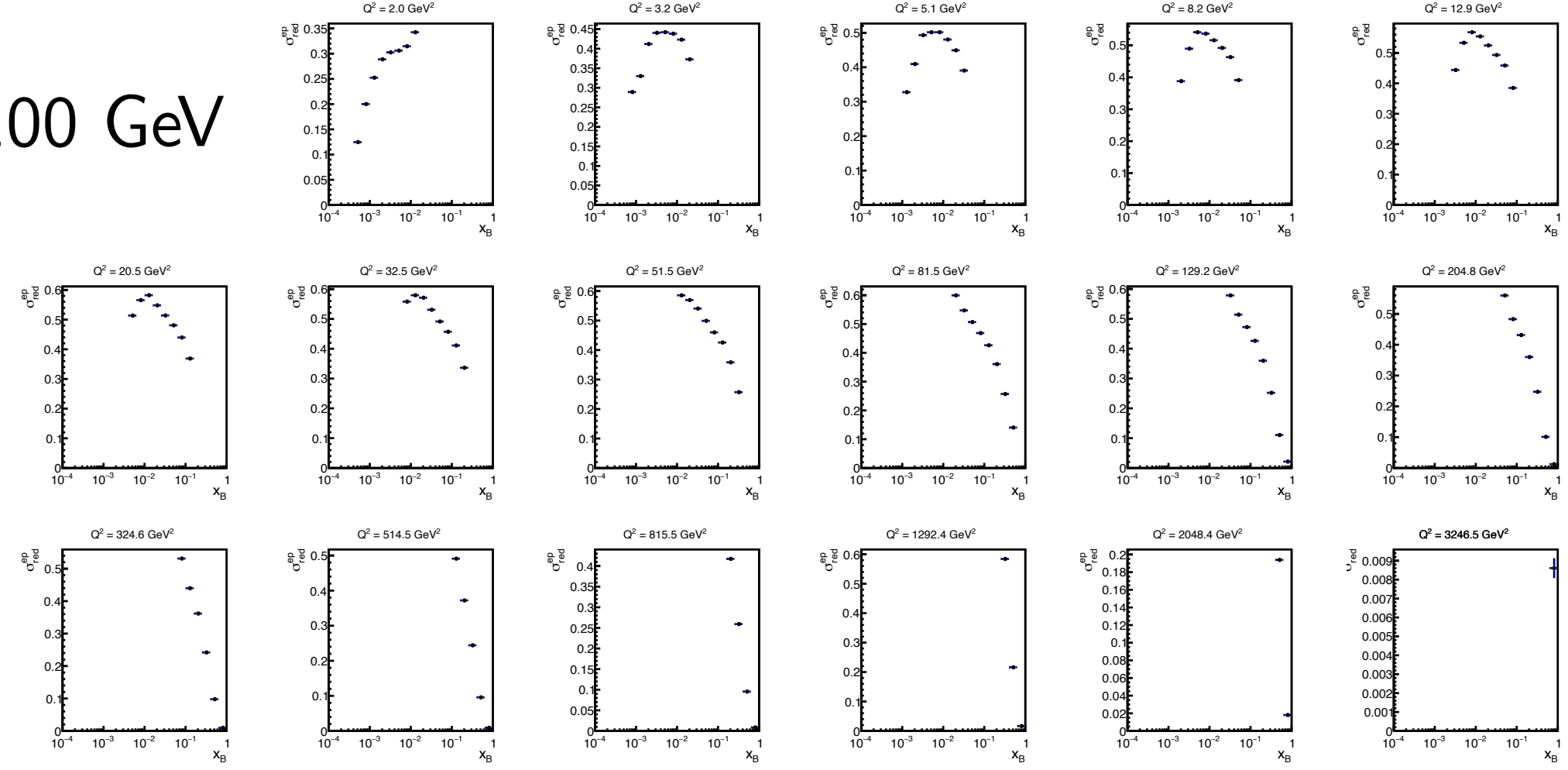
Progress on pre-TDR plots

- Inclusive NC cross sections (Tyler)
 - Acceptance-corrected cross sections complete
 - Need more work on systematics
- Double-spin asymmetries (Win, SBU)
 - Starting with ep asymmetry (hope to have update at next inclusive meeting)
 - Looking into generating eHe3 events with Pythia8
- Inclusive CC cross sections (no one currently active)

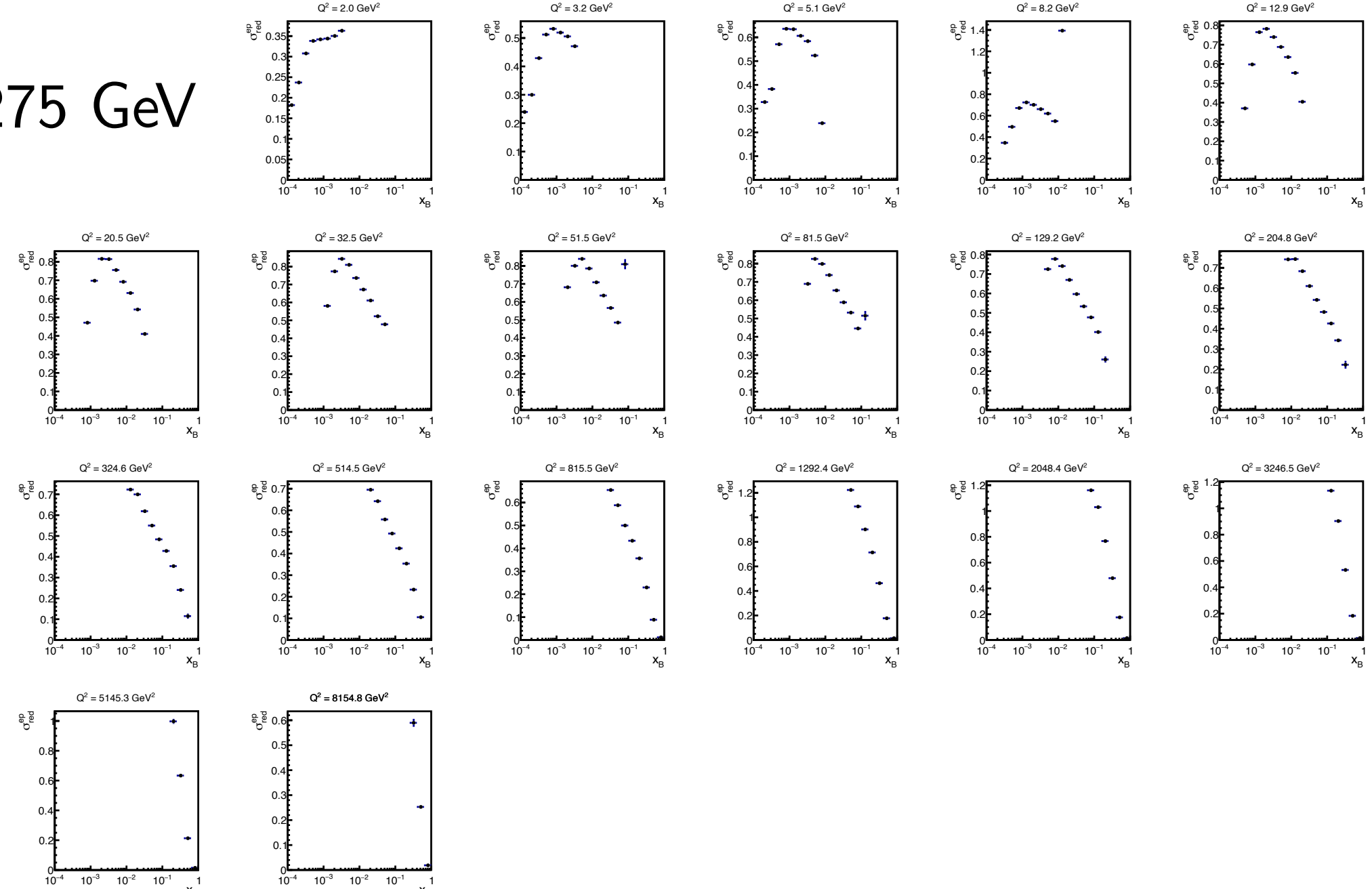
Caveats to all of the above:

- Electron ID from truth information
- Kinematic reconstruction strictly from electron track

10x100 GeV



18x275 GeV



Progress on reconstruction

- First results on electron resolution maps for weighted energy reconstruction (Fatma, AUC)
- HadronicFinalState factory PR approved
 - Revisit hadronic reconstruction methods with next campaign
 - May need to debug ReconstructedParticles factory
- Track-matching studies still in early stages (Aliaa, AUC)
- Daniel and I proposed a workfest on “Electron identification and reconstruction” for next month’s collaboration meeting
 - If approved/scheduled, will discuss with inclusive/reconstruction working groups to define goals

