



DIFFRACTIVE DIS



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Inclusive DIS Analysis Cuts

Primary Kinematic Cuts:

- Inelasticity (y): $0.01 < y < 0.95$

Lower cut removes the poorly reconstructed events; upper cut removes challenging electron finding

- Photon virtuality: $Q^2 > 1.0 \text{ GeV}^2$

Can start at 2 for better quality

- Light cone energy: $32 < E - p_z < 40 \text{ GeV}$

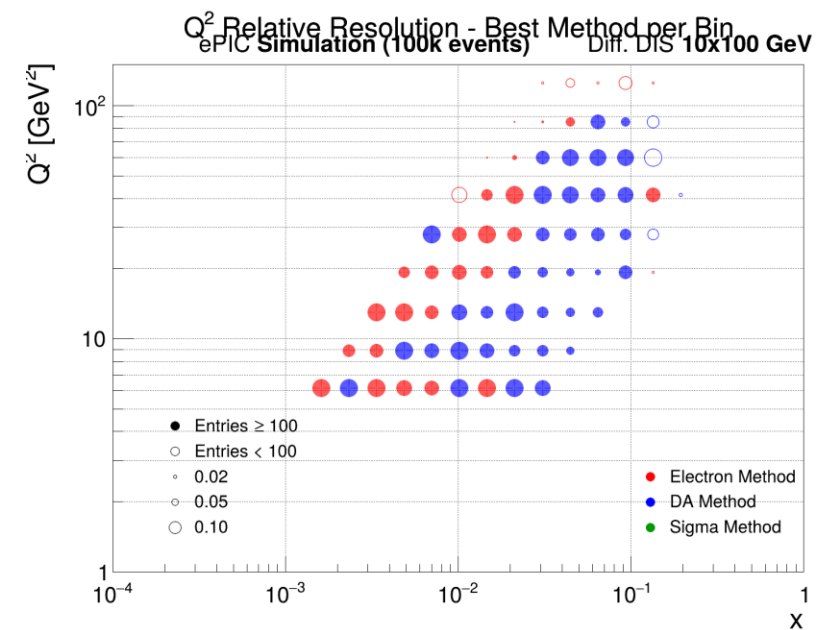
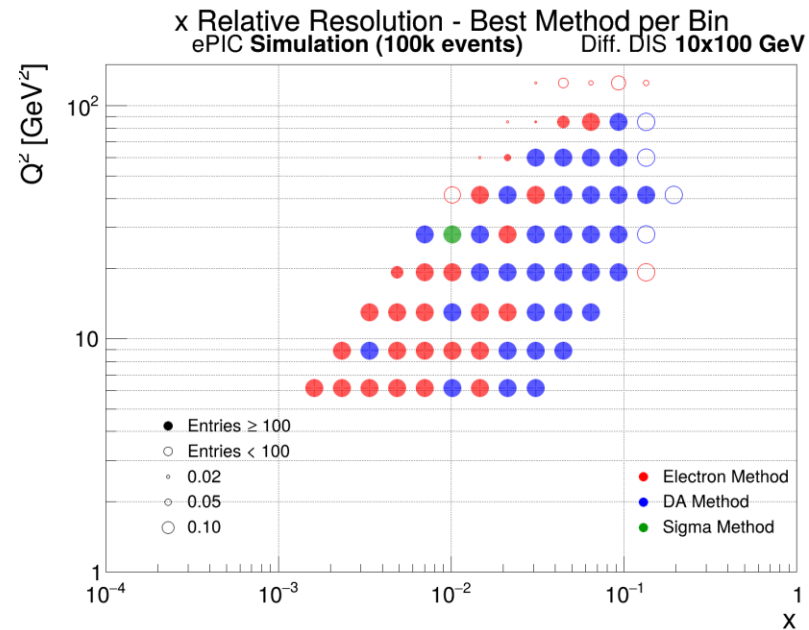
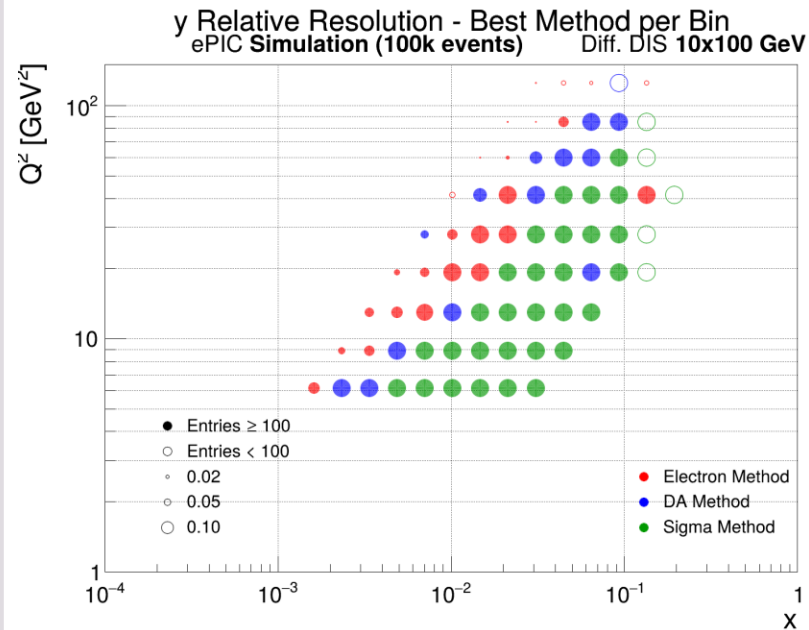
Lower cut removes ISR; upper cut removes poorly reconstructed

PDF impact studies: $W^2 > 10 \text{ GeV}^2$

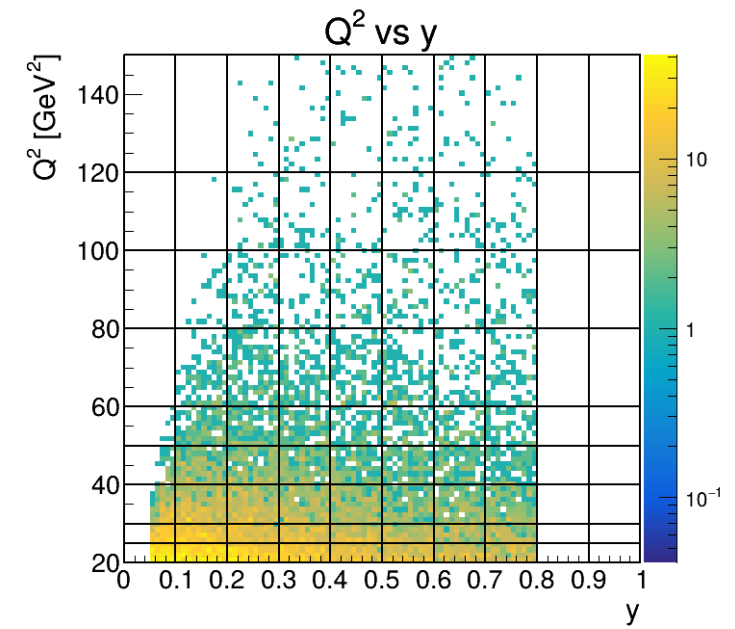
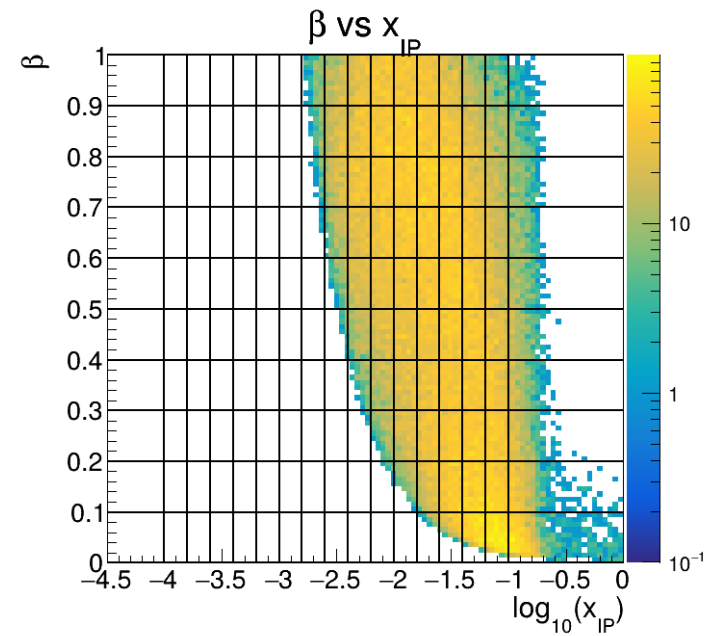
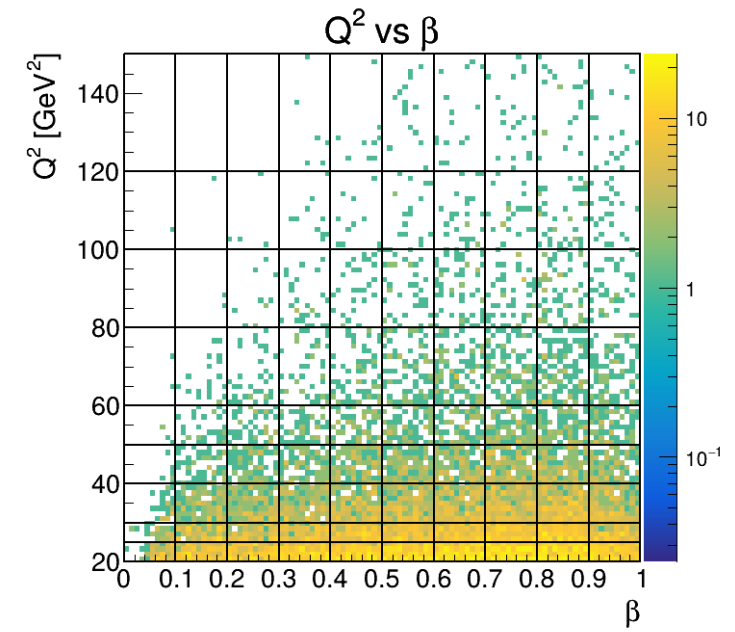
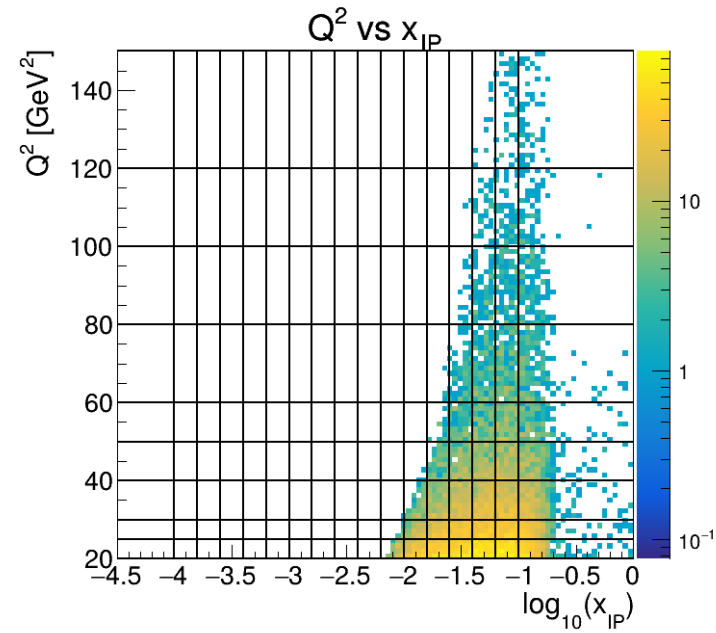
Avoids higher-twist effects

$M_X^2 > 4 \text{ GeV}^2$

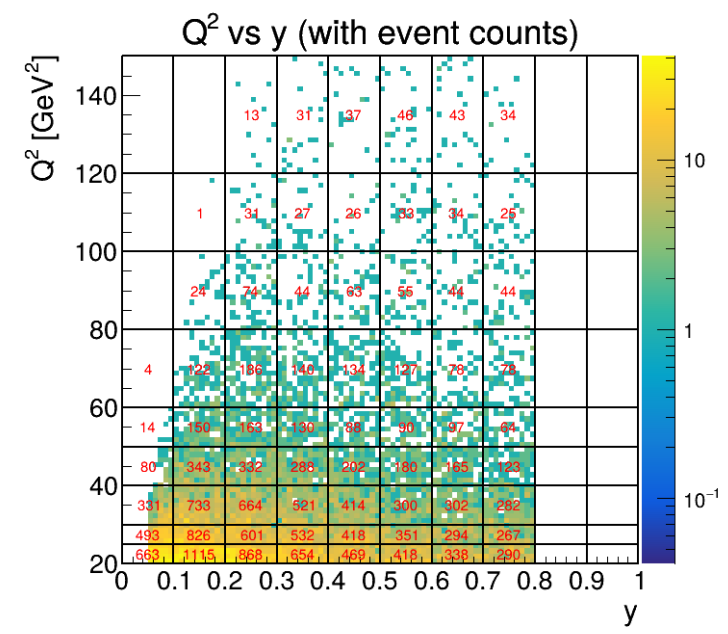
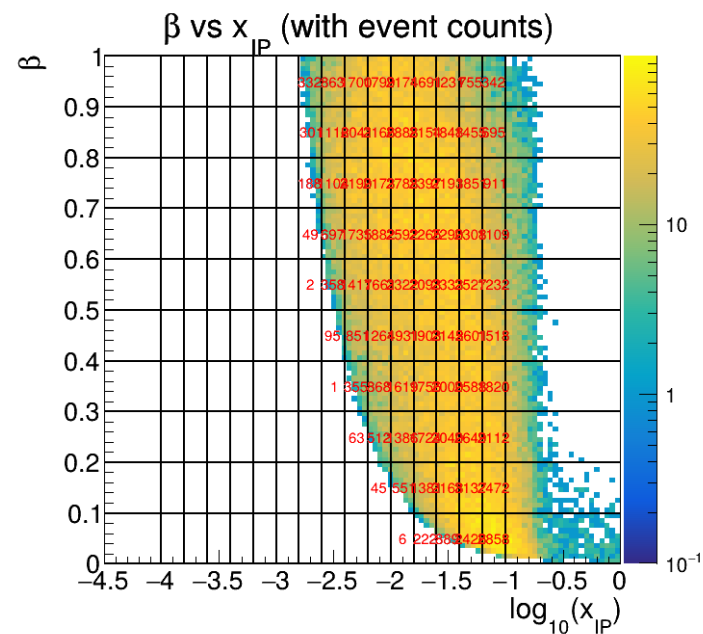
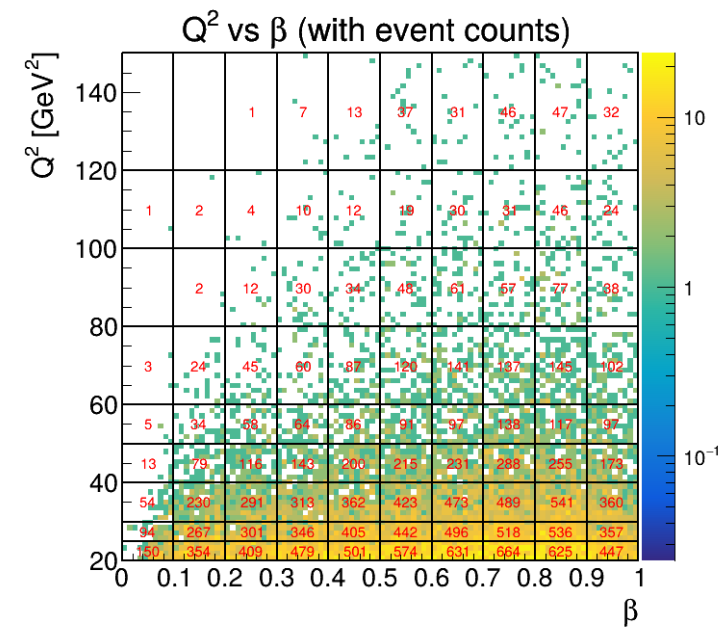
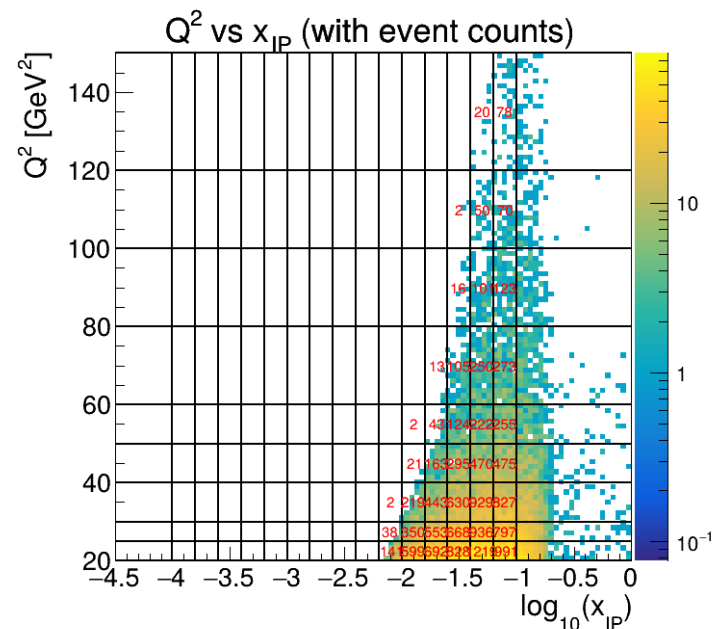
Update of phase space plot – Inc.Variables



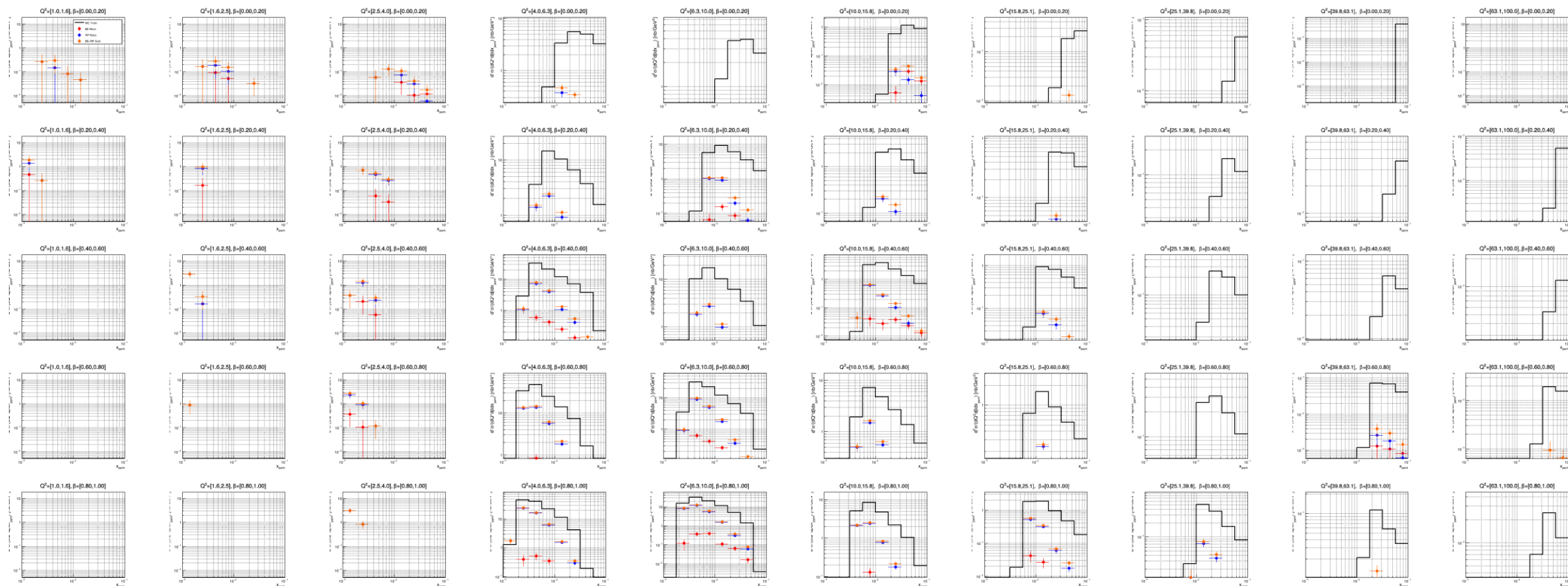
Binning Scheme



Binning Scheme



Triple differential Corss-section



Next

- Selection cut
- Binning scheme
- Redo the resolution study after selection+binning
- Comments/suggestions welcome

Triple differential cross section vs. beta

