

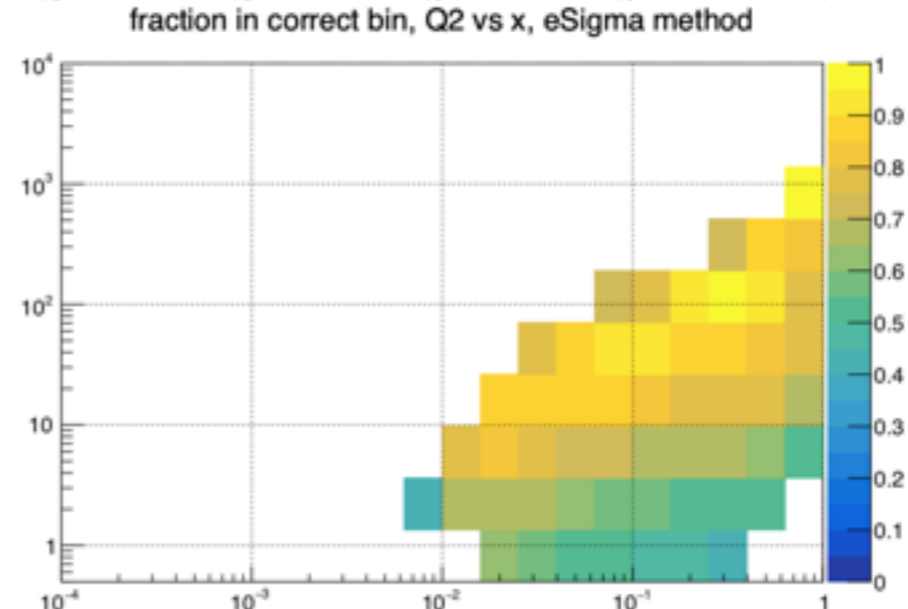
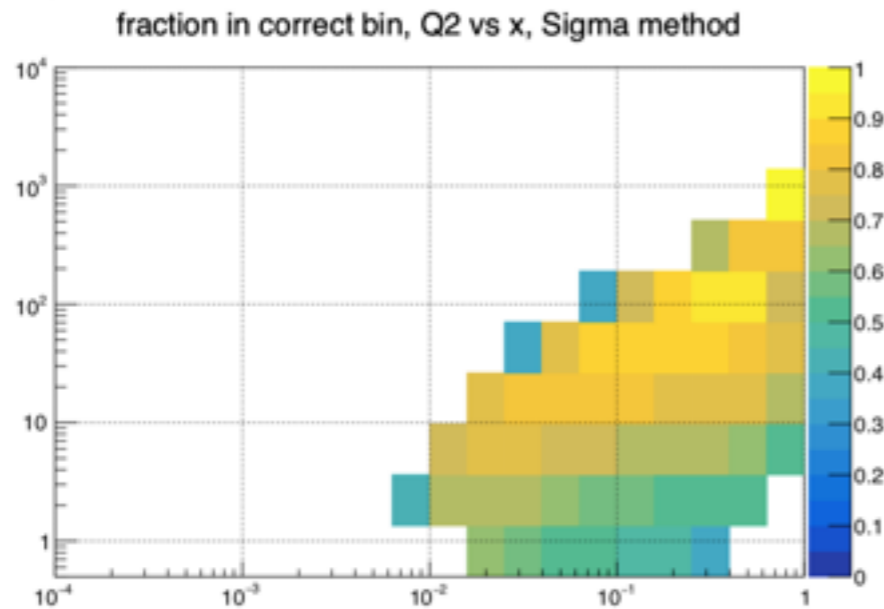
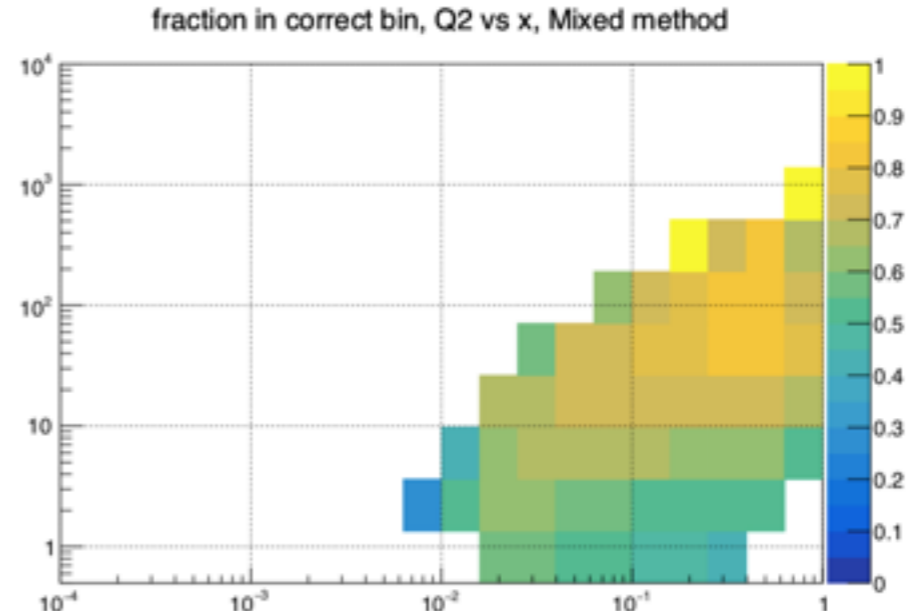
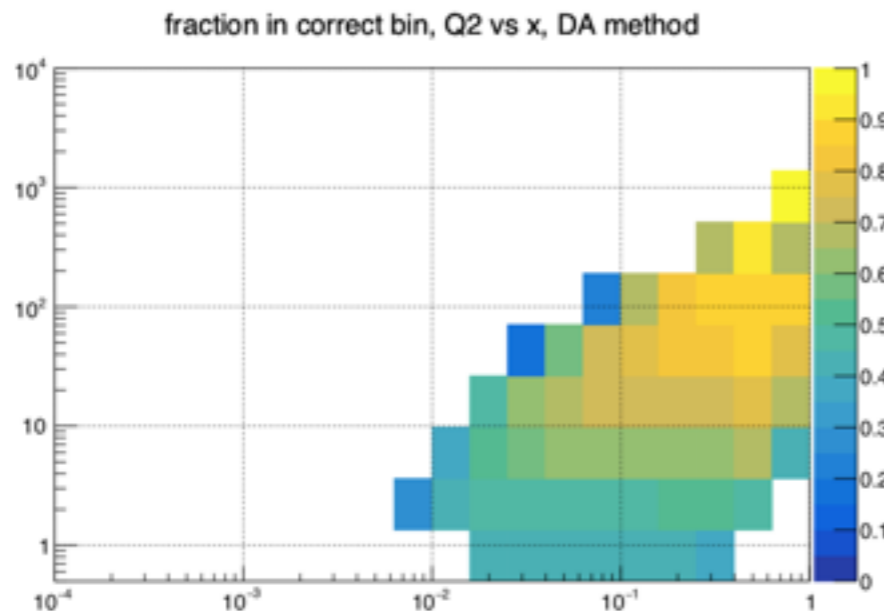
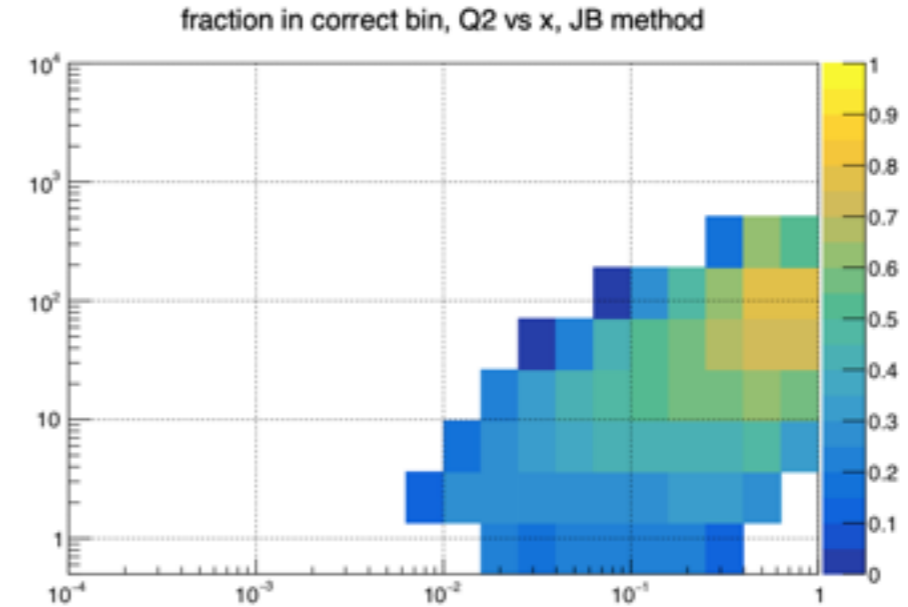
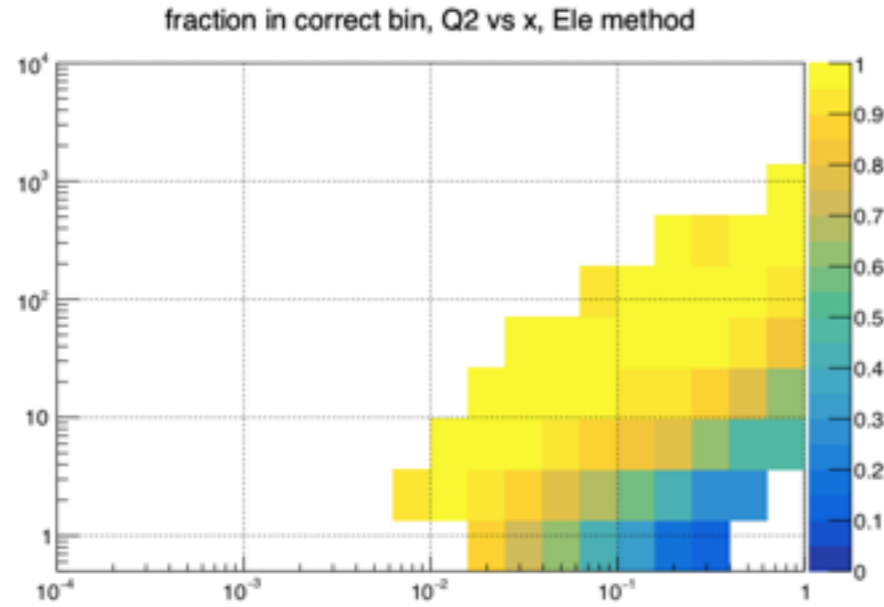
SIDIS Variable Reconstruction Methods

Connor Pecar
Duke University

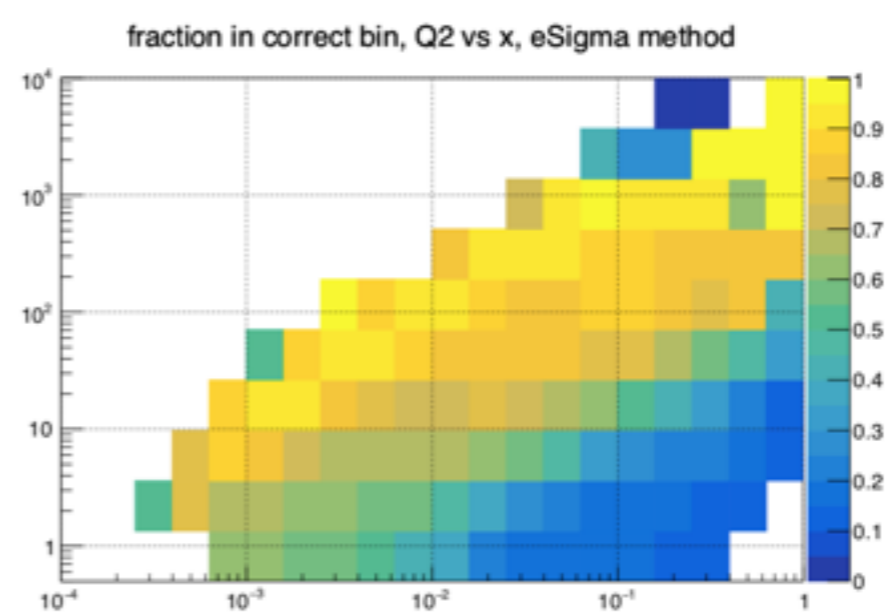
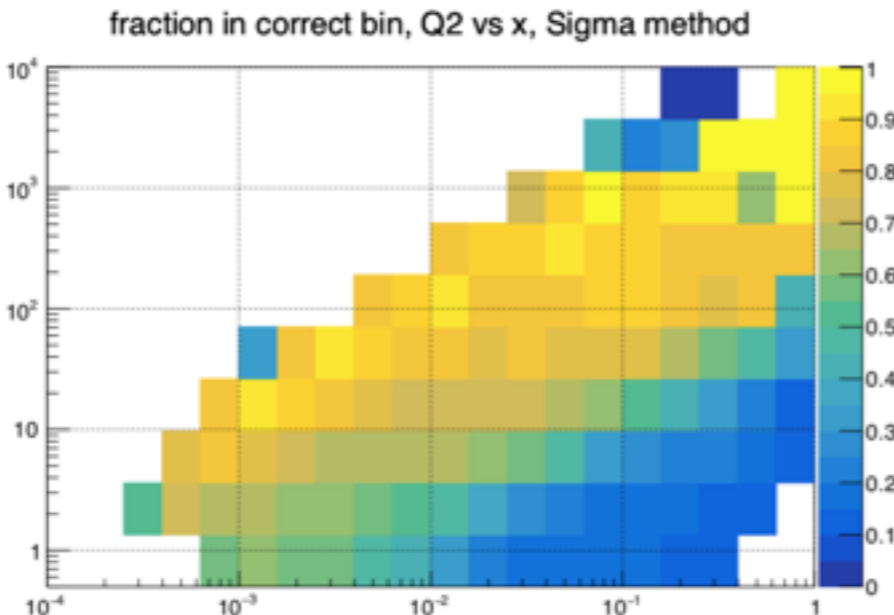
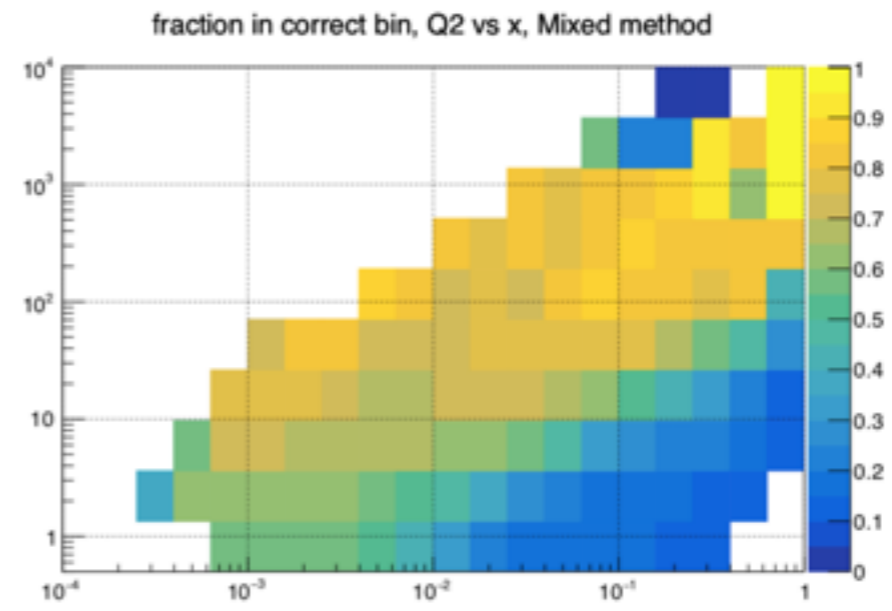
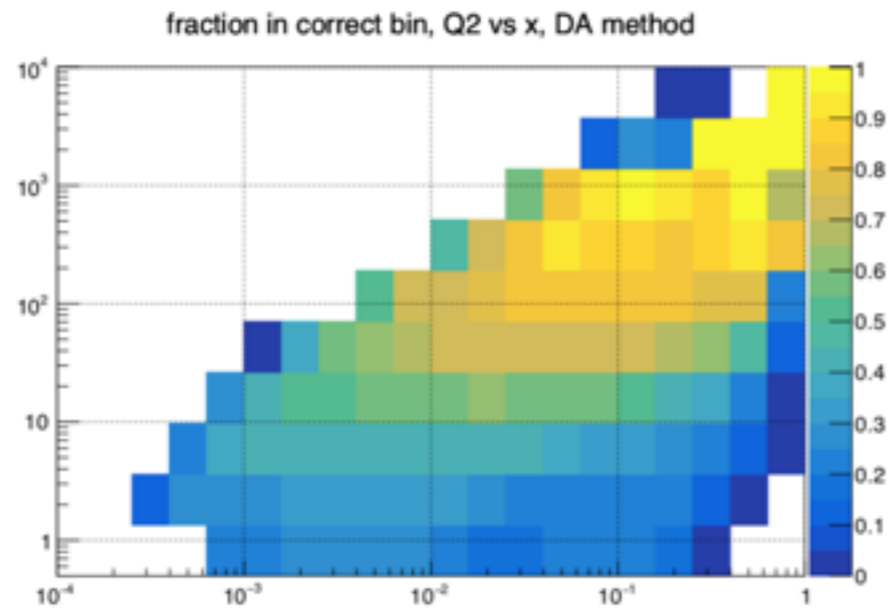
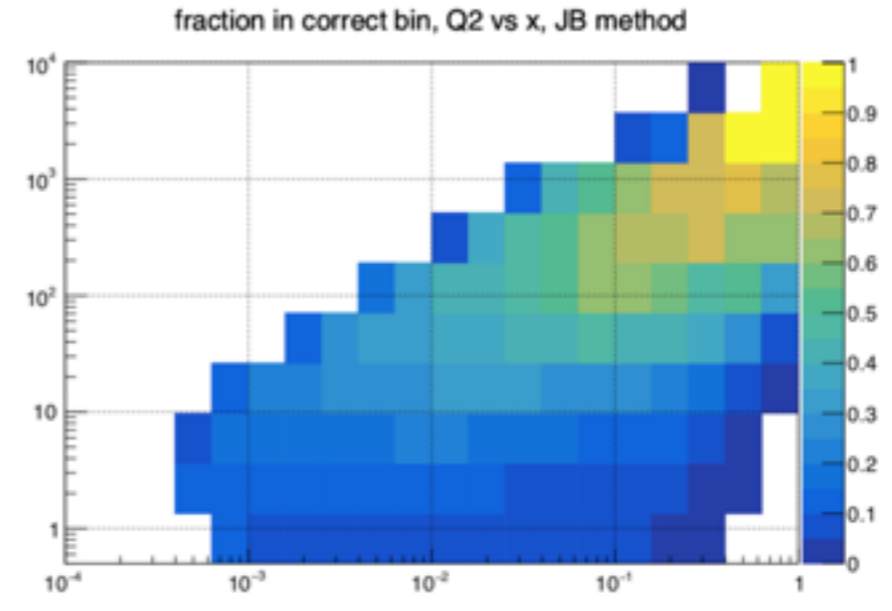
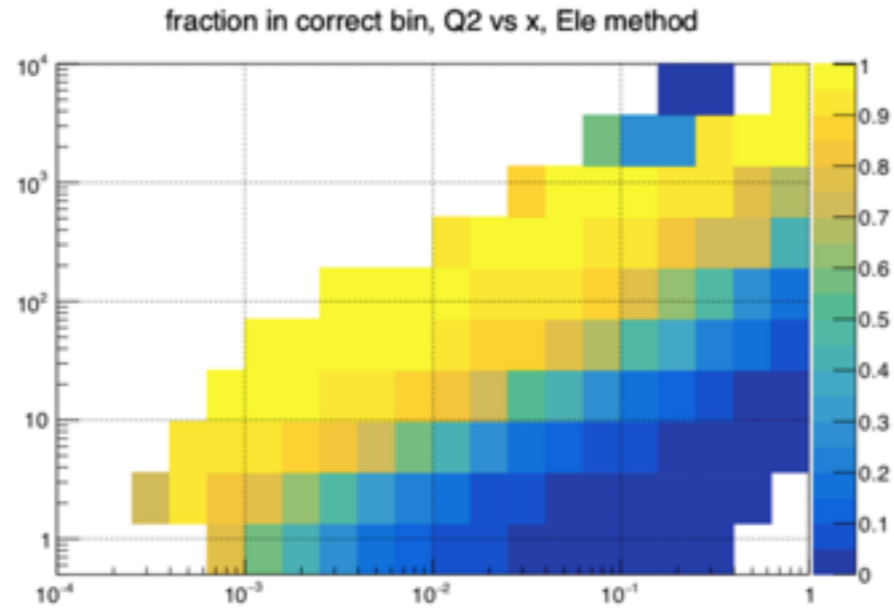
Kinematic reconstruction methods

- Study of performance of DIS kinematic reconstruction methods on DIS and SIDIS variables
 - Boosting hadronic final state and electron to head-on frame
- Using beam energies 5x41 and 18x275
 - Crossing angle -25 mrad for both configurations
 - Smearred with ATHENA Delphes card

DIS variable reconstruction, 5x41

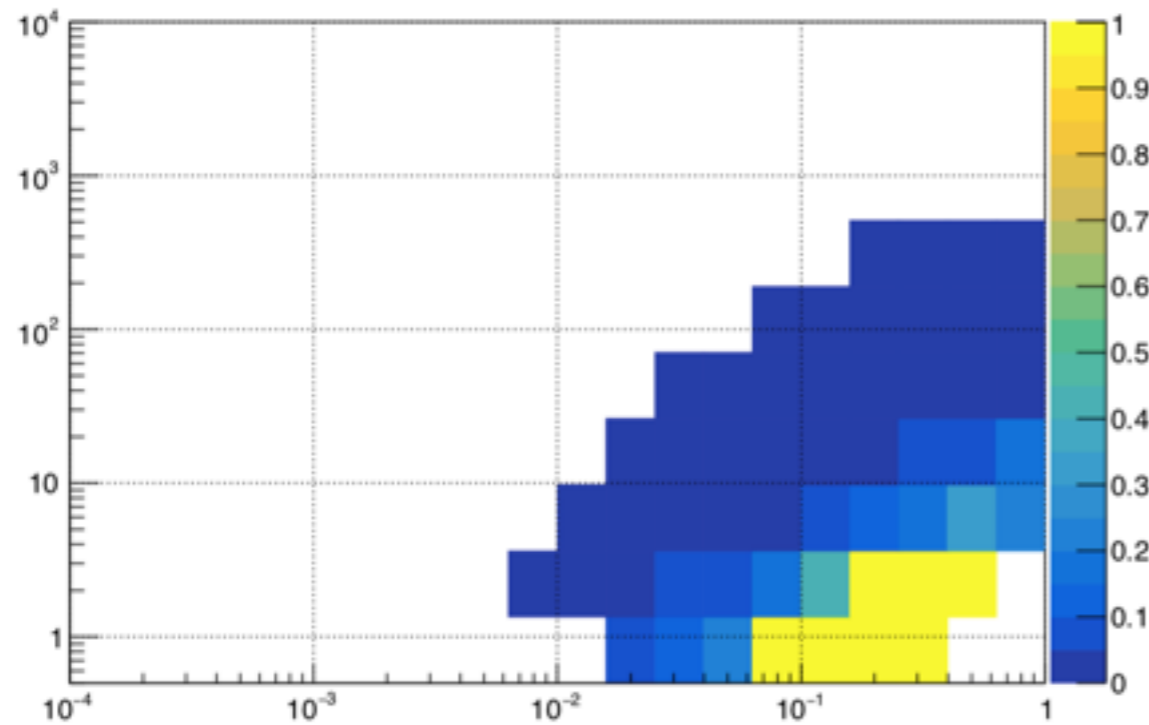


DIS variable reconstruction, 18x275

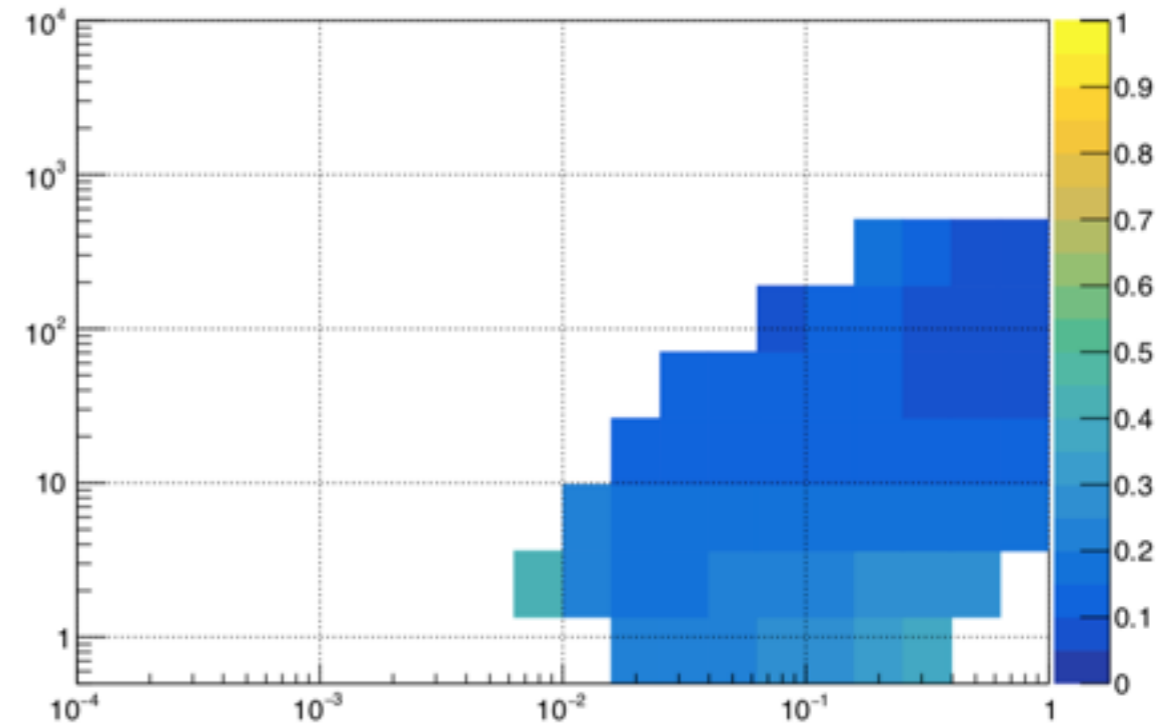


z reconstruction, pi+ tracks, 5x41

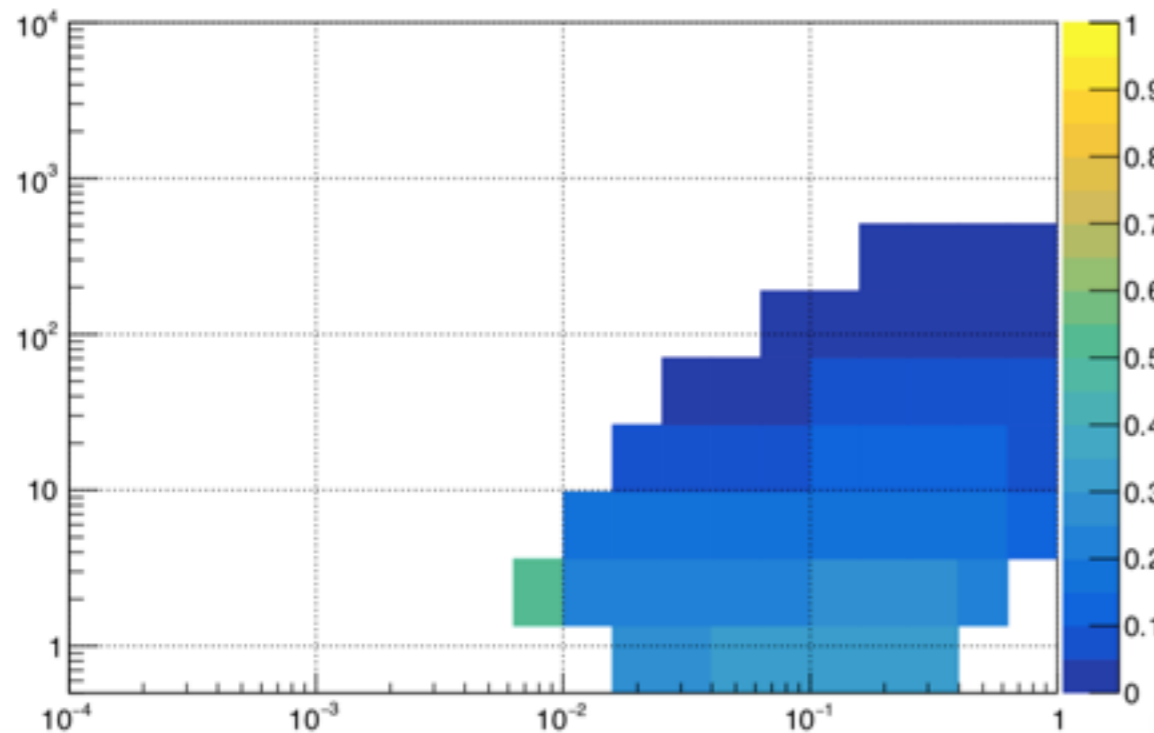
relative deviation in z, Ele method



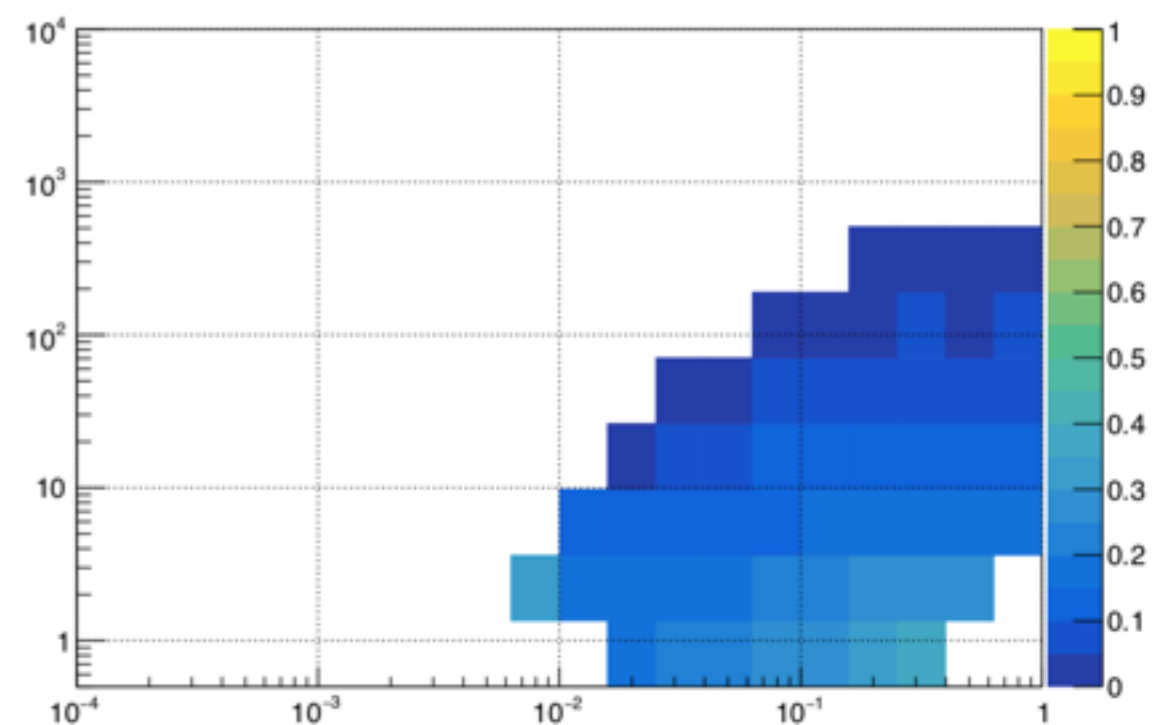
relative deviation in z, JB method



relative deviation in z, DA method

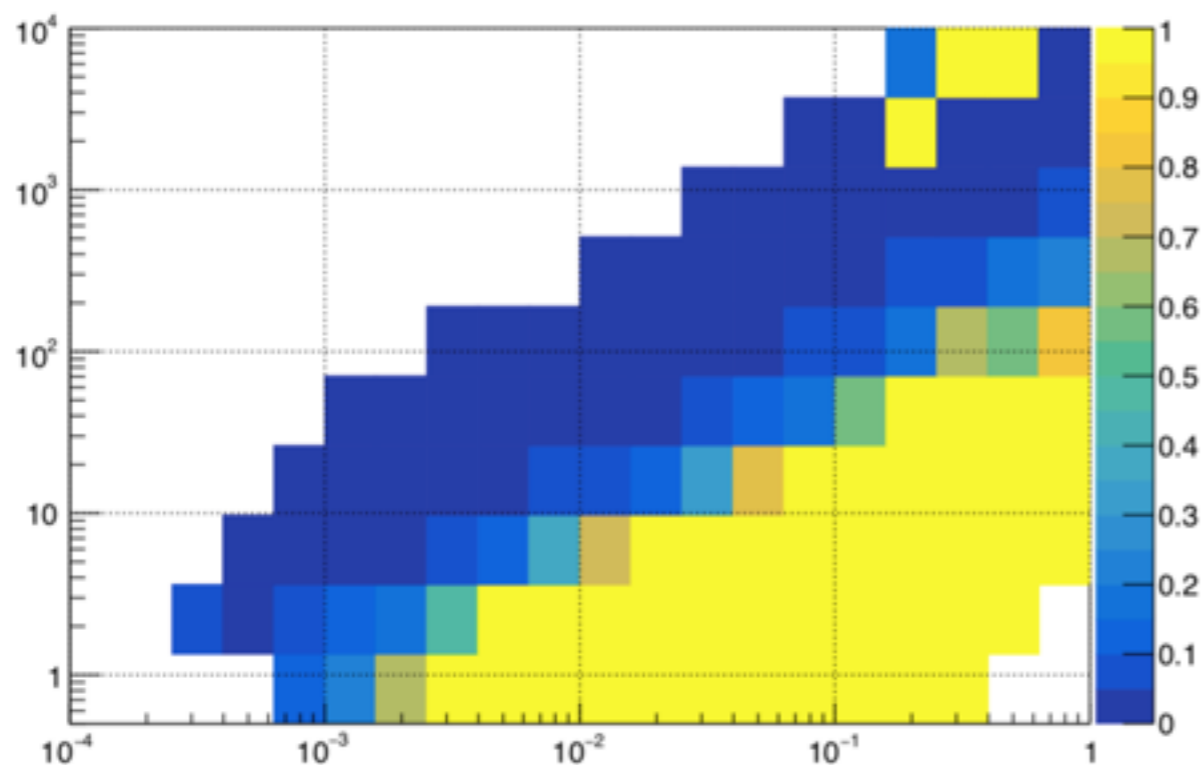


relative deviation in z, Sigma method

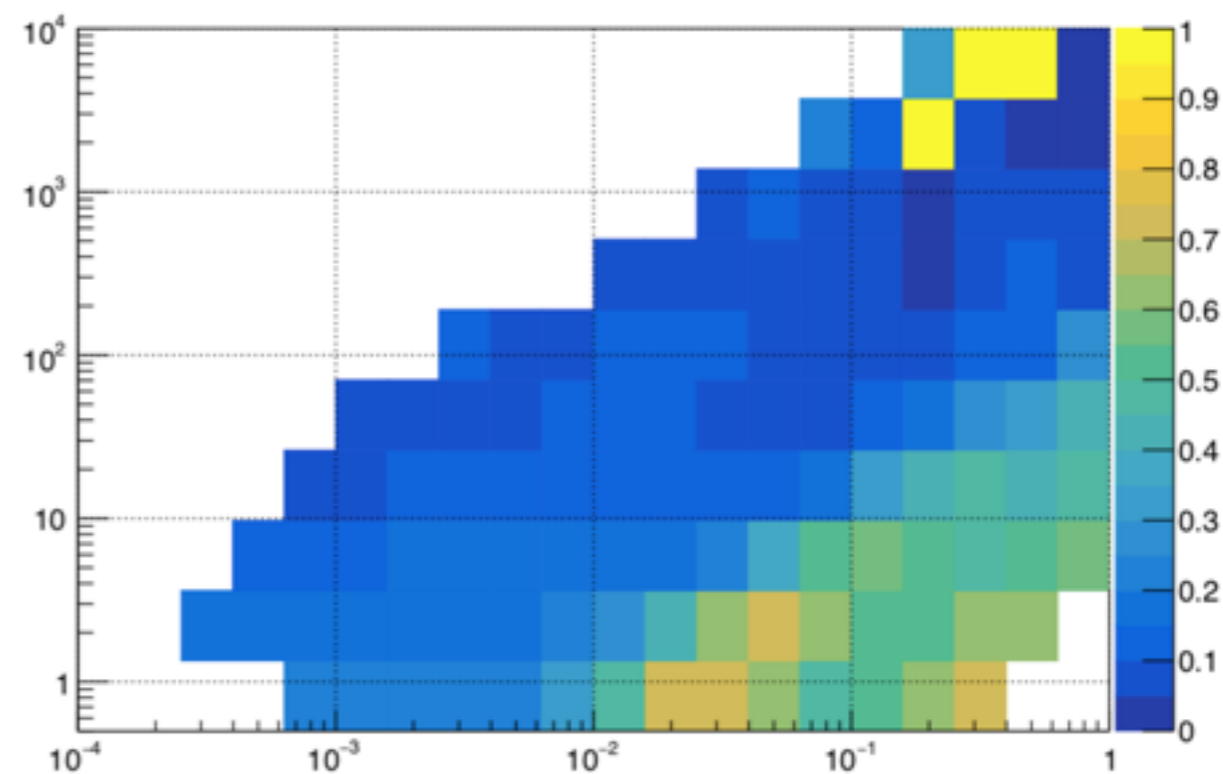


z reconstruction, pi+ tracks, 18x275

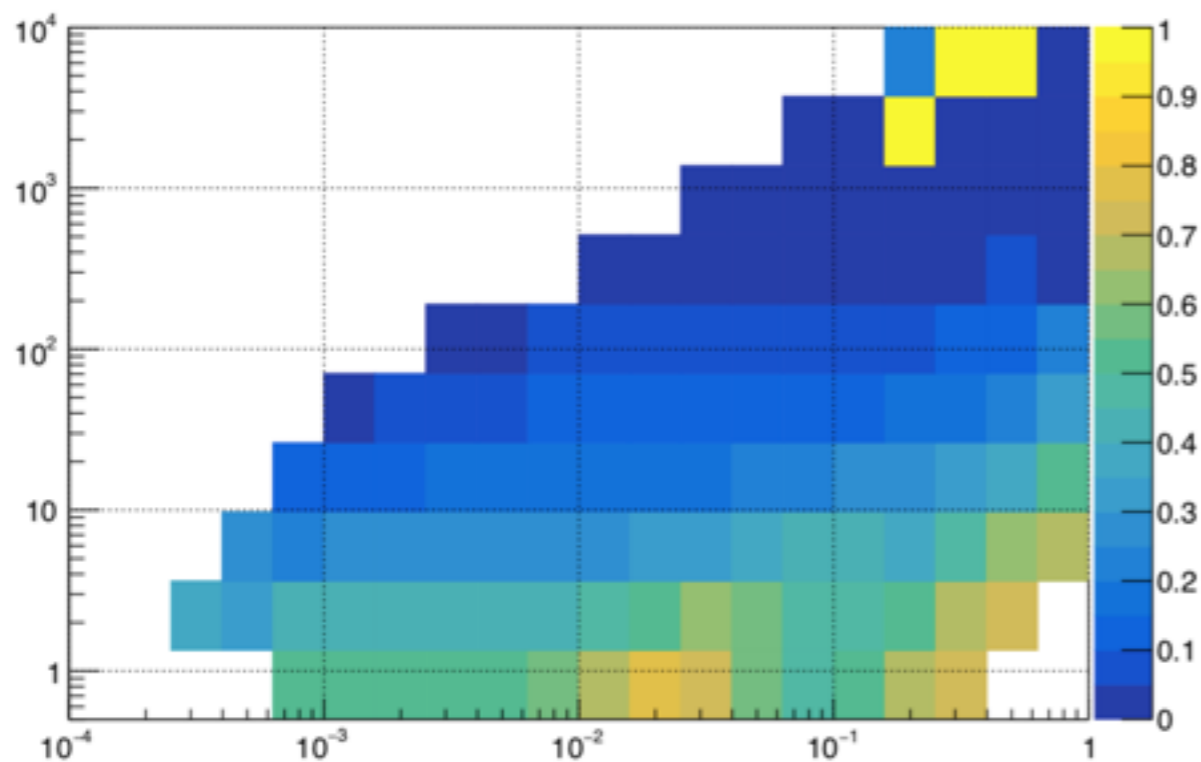
relative deviation in z, Ele method



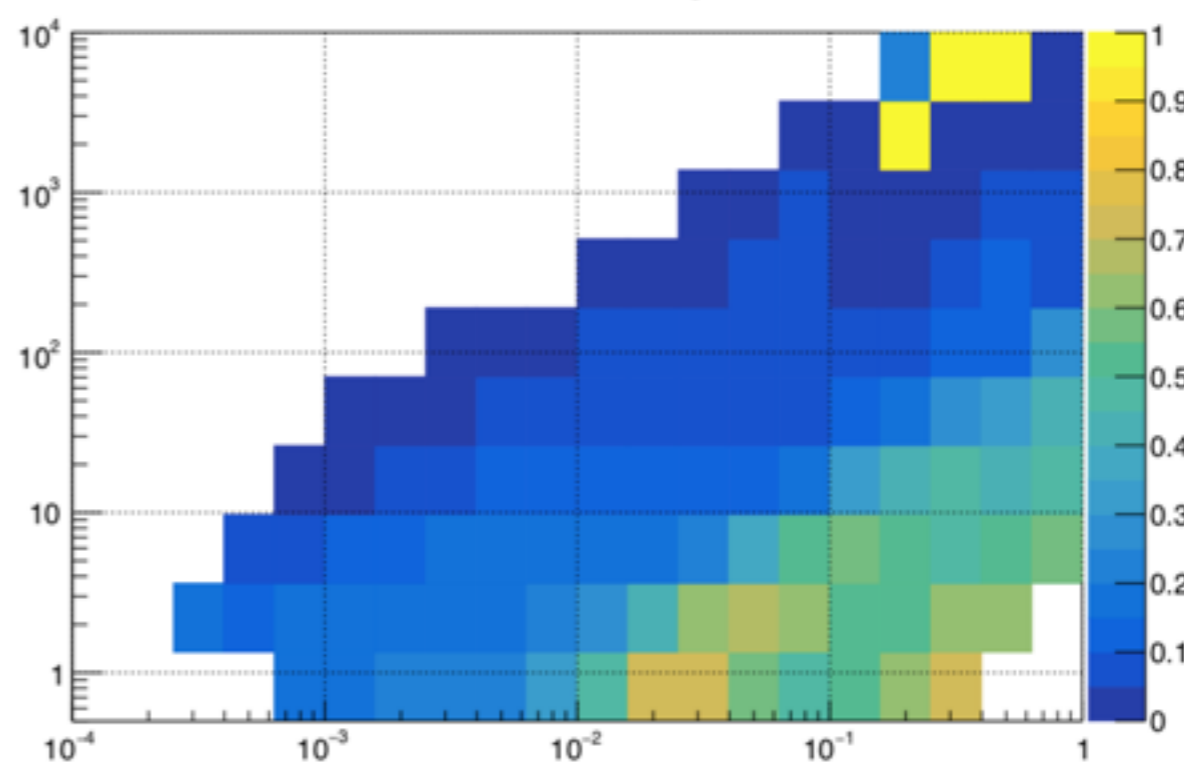
relative deviation in z, JB method



relative deviation in z, DA method

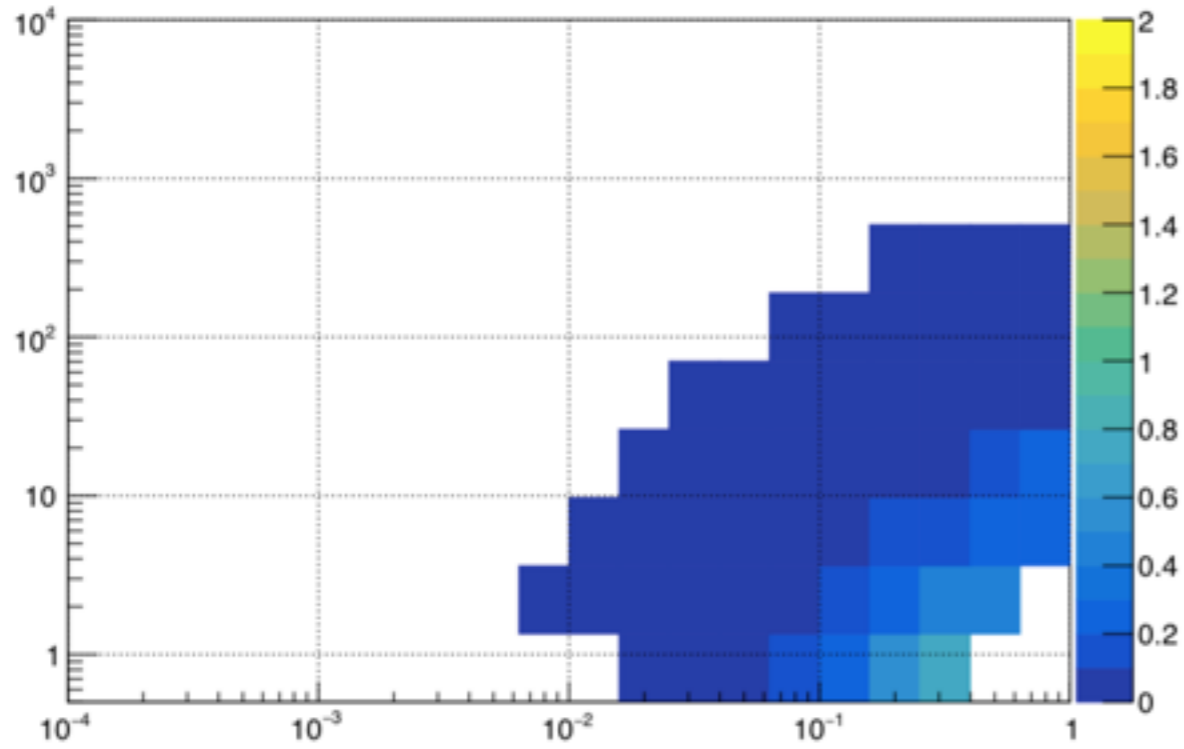


relative deviation in z, Sigma method

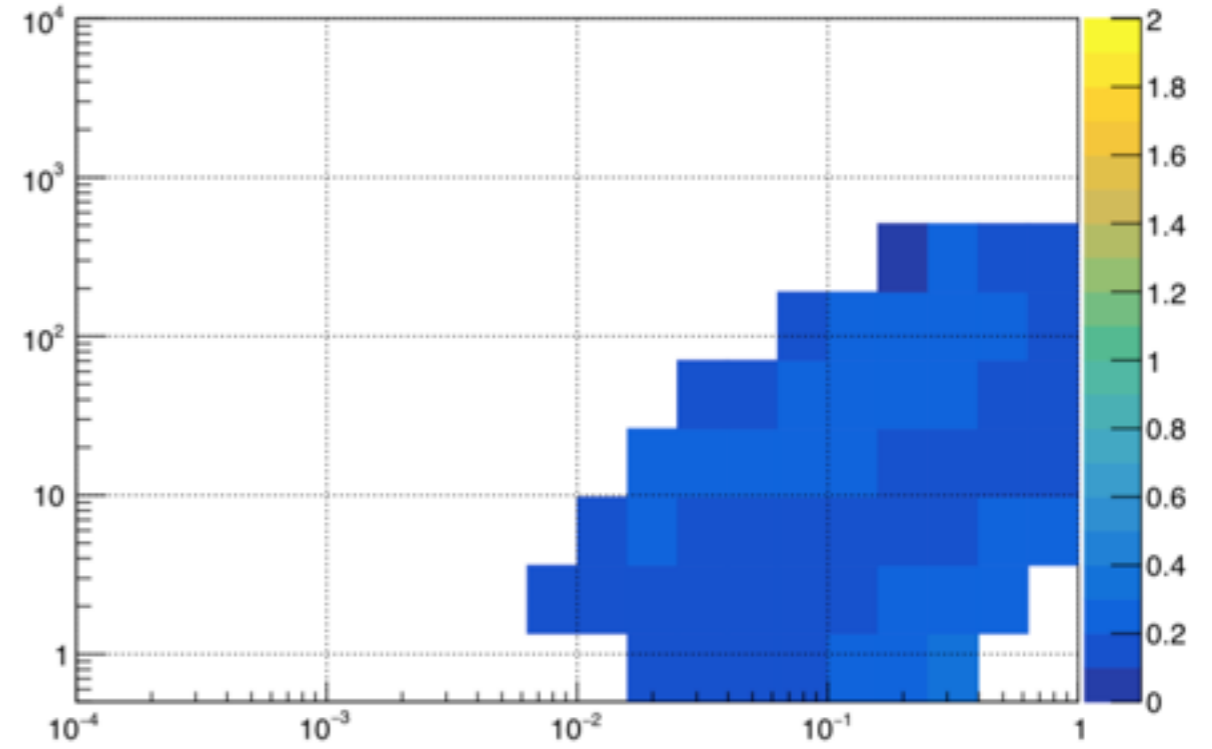


pT reconstruction, pi+ tracks, 5x41

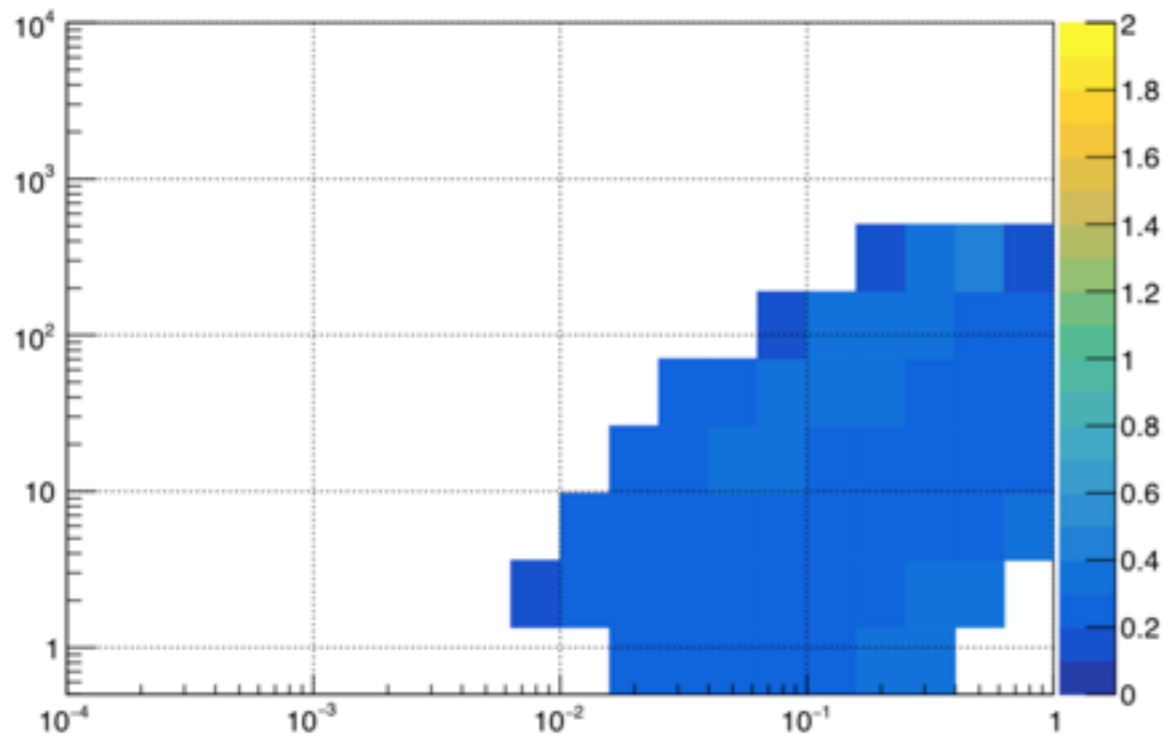
relative deviation in pt, Ele method



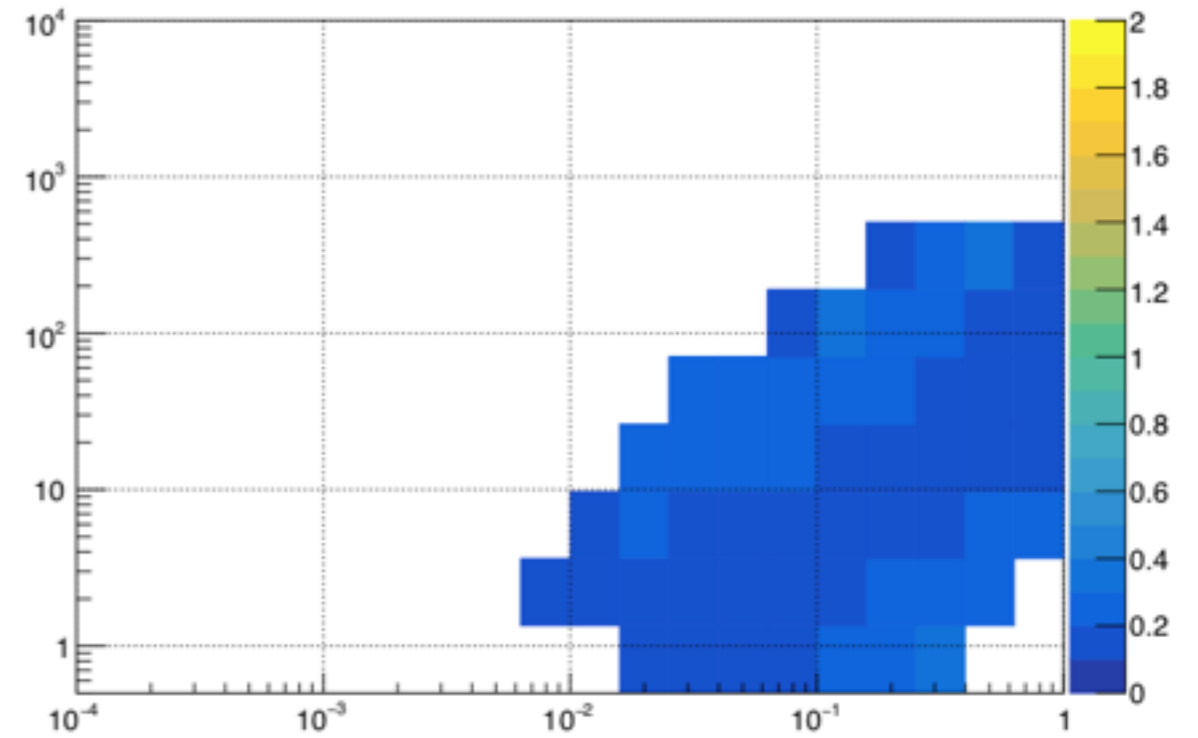
relative deviation in pt, JB method



relative deviation in pt, DA method

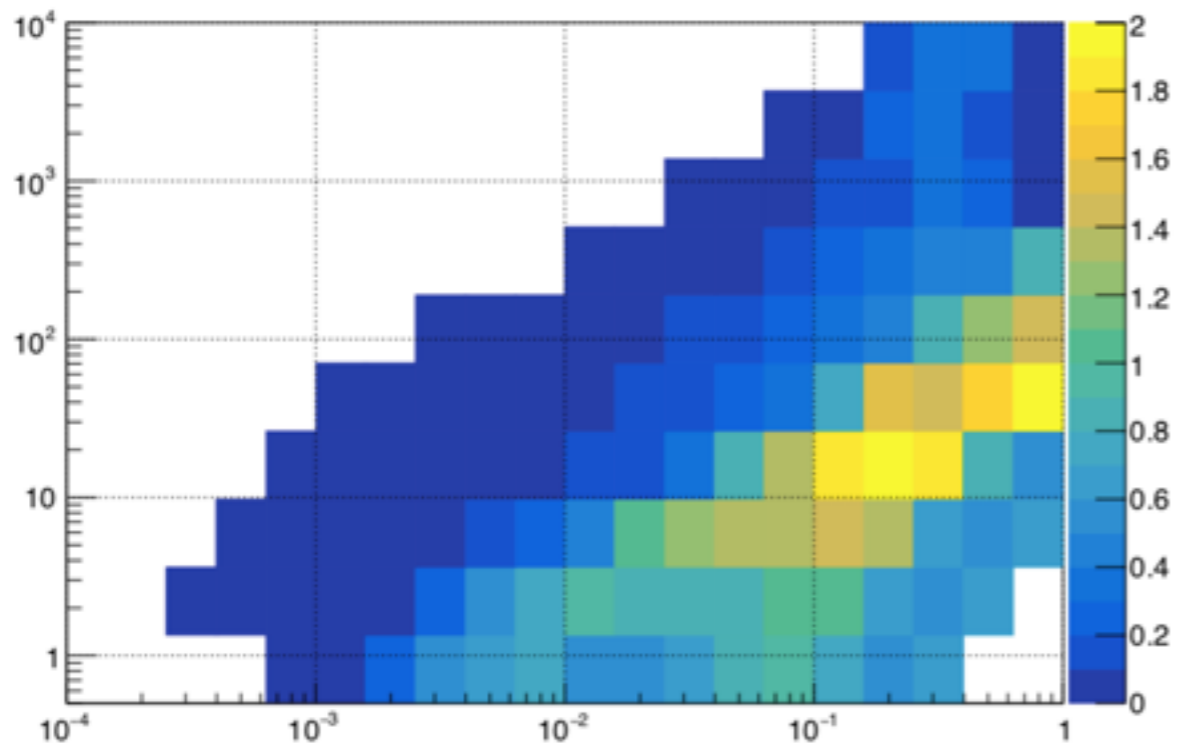


relative deviation in pt, Sigma method

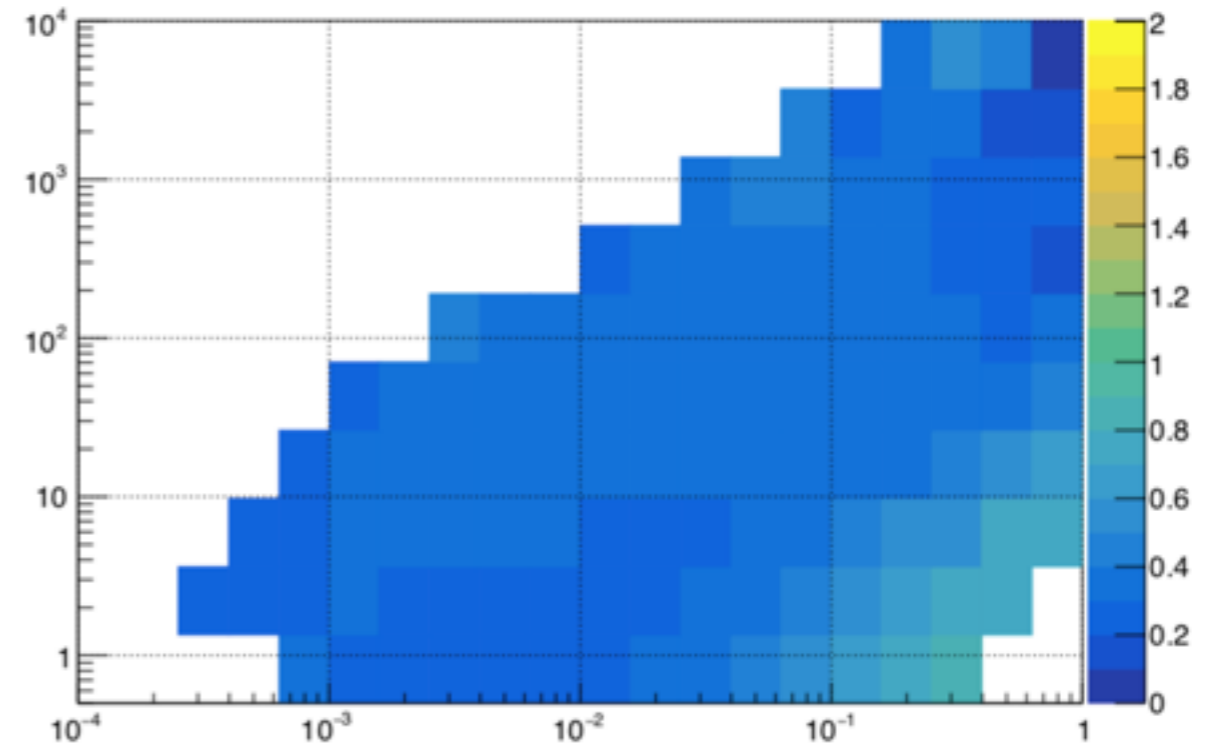


pT reconstruction, pi+ tracks, 18x275

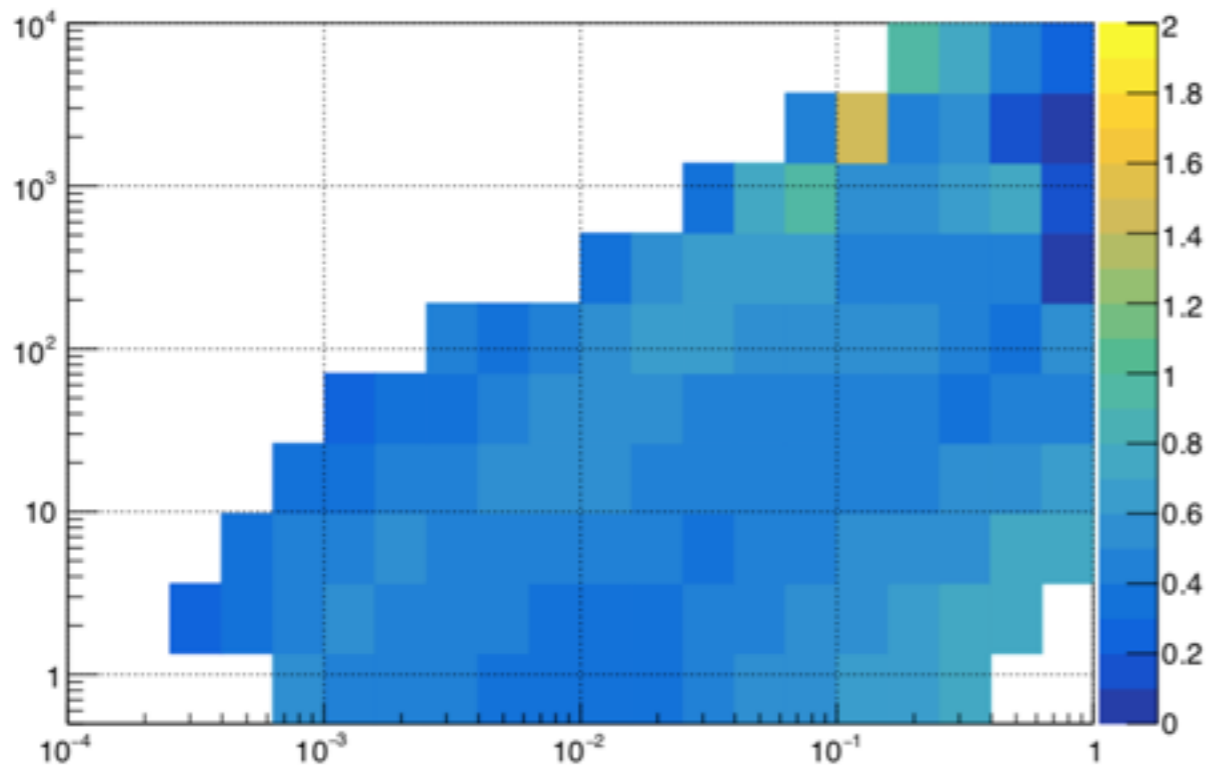
relative deviation in pt, Ele method



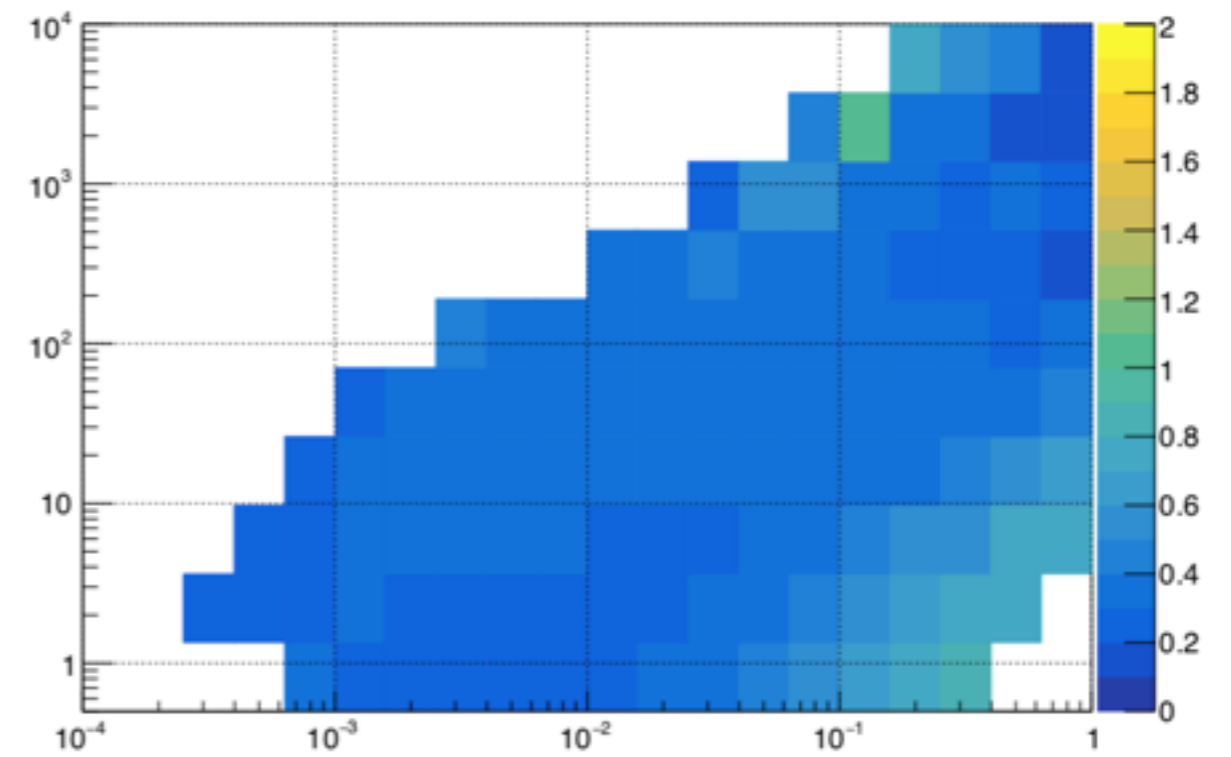
relative deviation in pt, JB method



relative deviation in pt, DA method

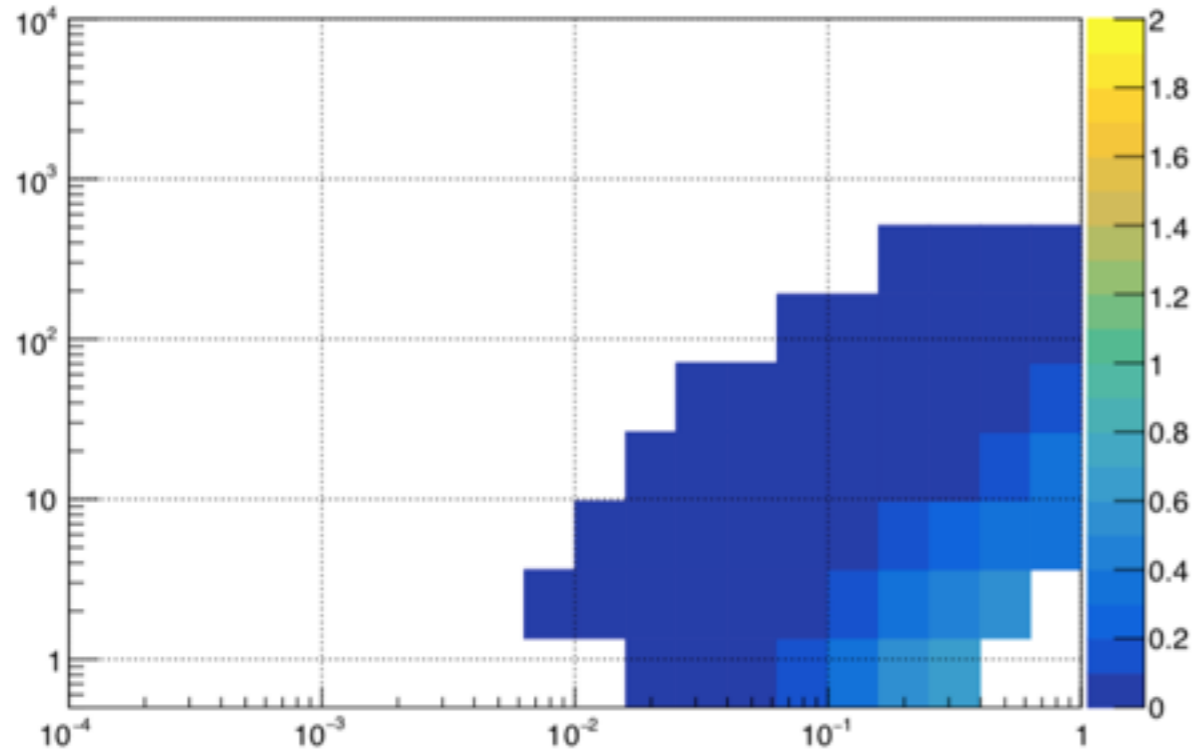


relative deviation in pt, Sigma method

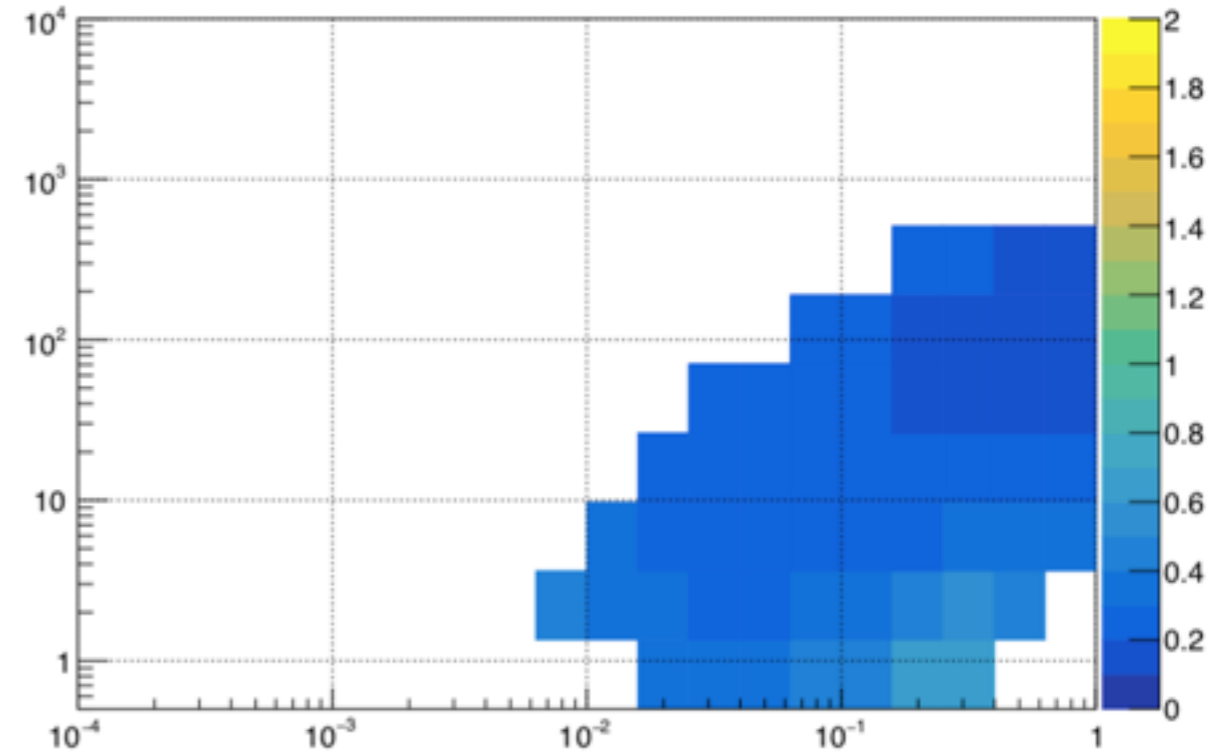


phih reconstruction, pi+ tracks, 5x41

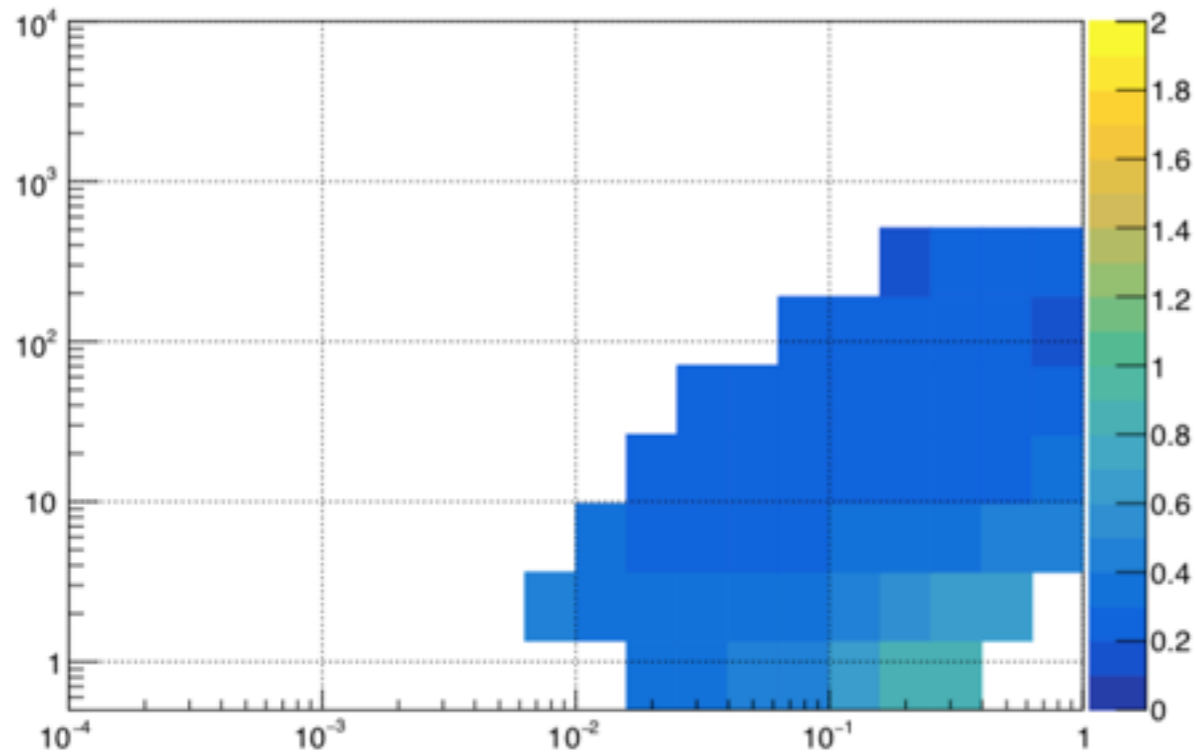
average deviation in phih, Ele method



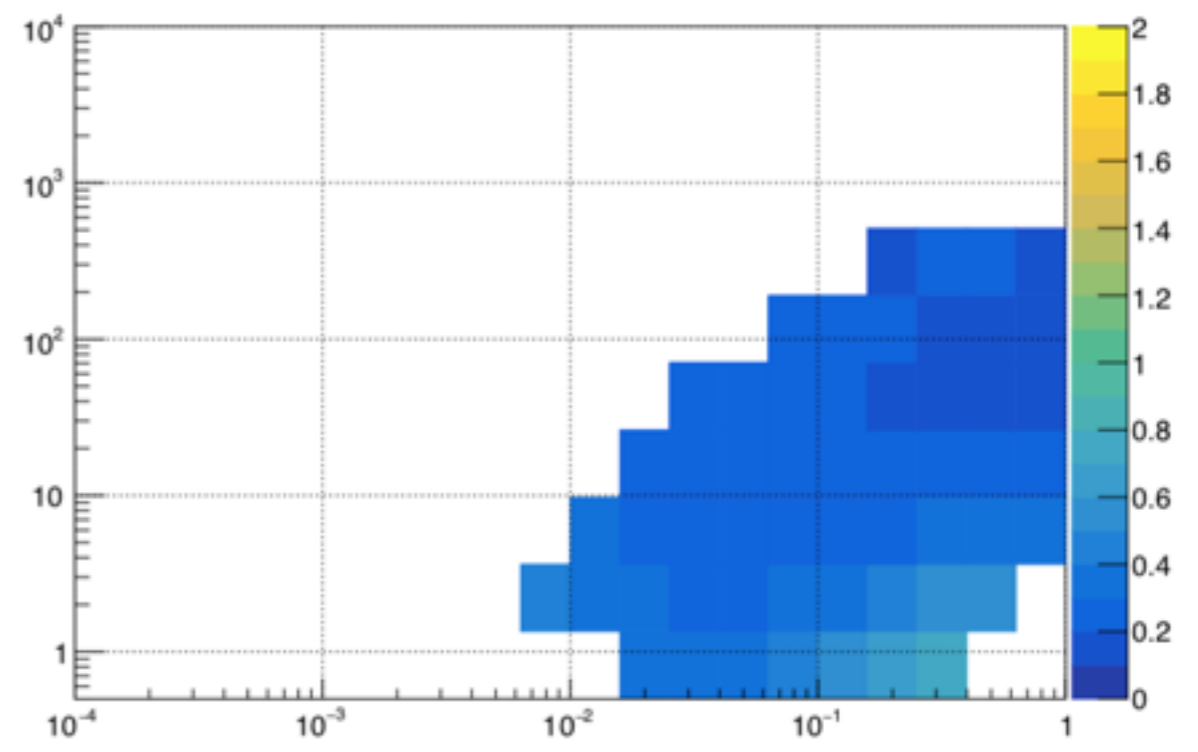
average deviation in phih, JB method



average deviation in phih, DA method

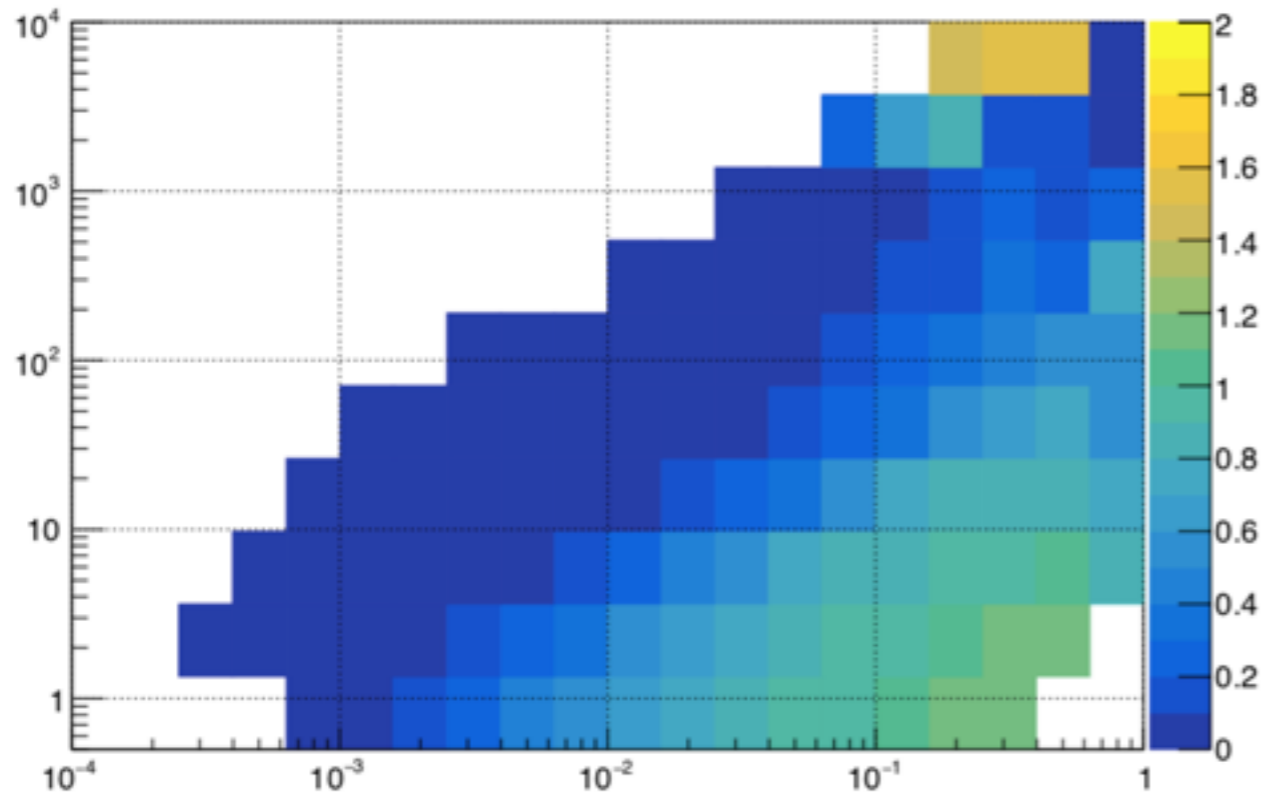


average deviation in phih, Sigma method

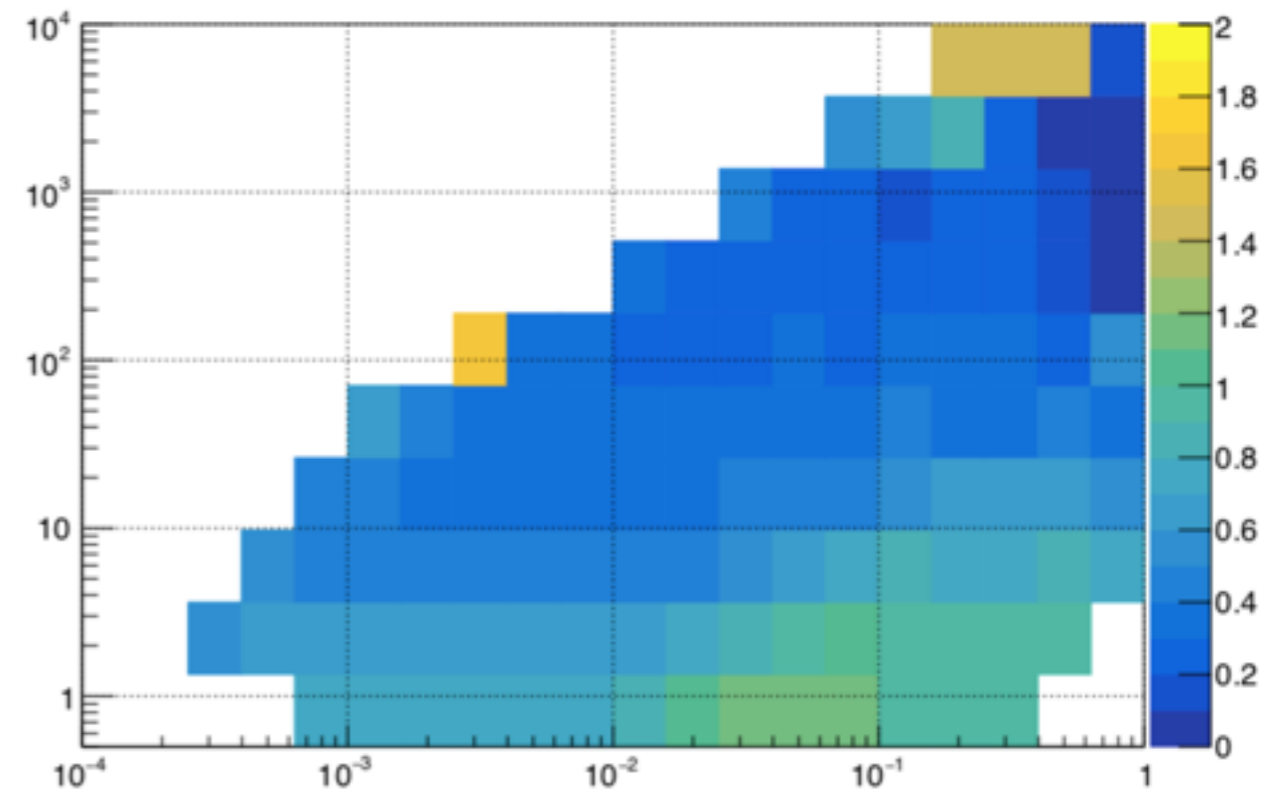


phi_h reconstruction, pi+ tracks, 18x275

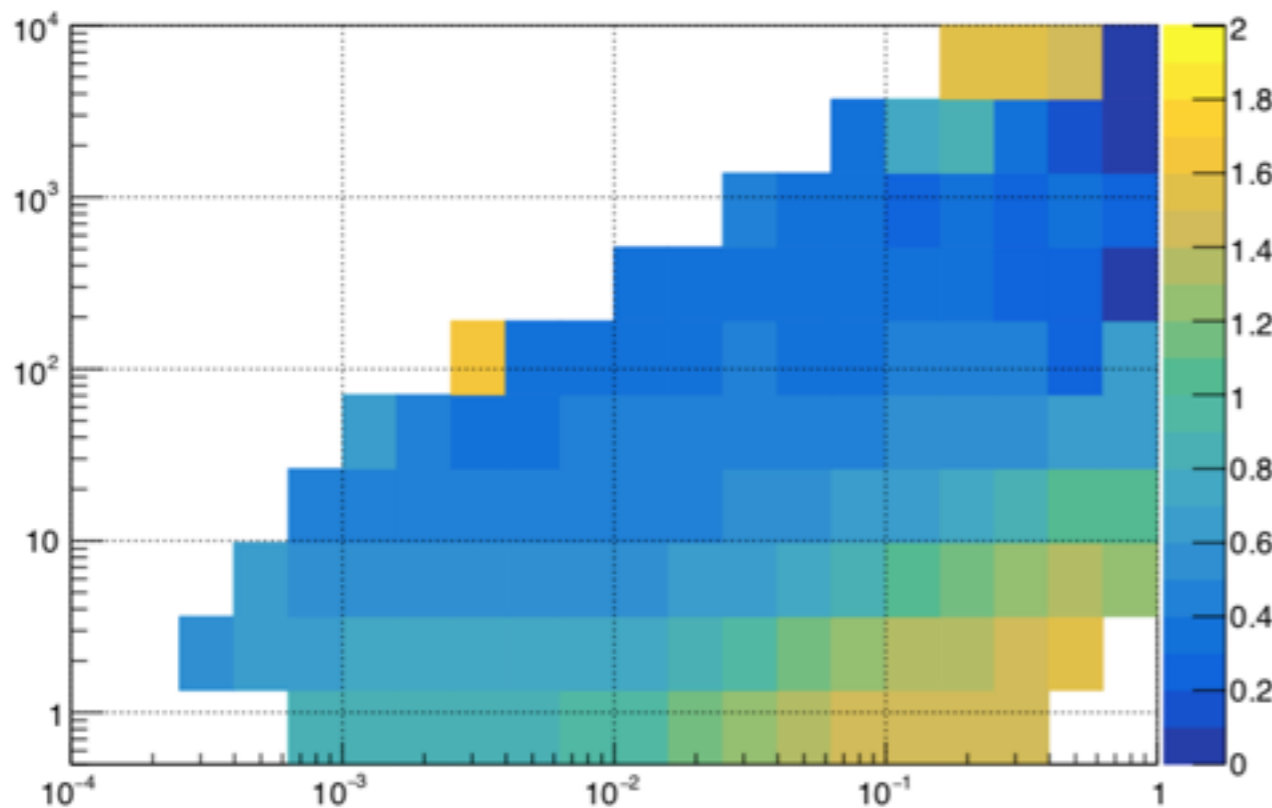
average deviation in phi_h, Ele method



average deviation in phi_h, JB method



average deviation in phi_h, DA method



average deviation in phi_h, Sigma method

