

学期计划

- 完成pAu200的净质子数涨落的分析
 - Tracking Efficiency: 2 weeks
 - Cumulant Calculation: 1 month
 - Error Estimation: 1 month
- 继续EicC模拟,准备CDR材料

pAu200_2015 PID

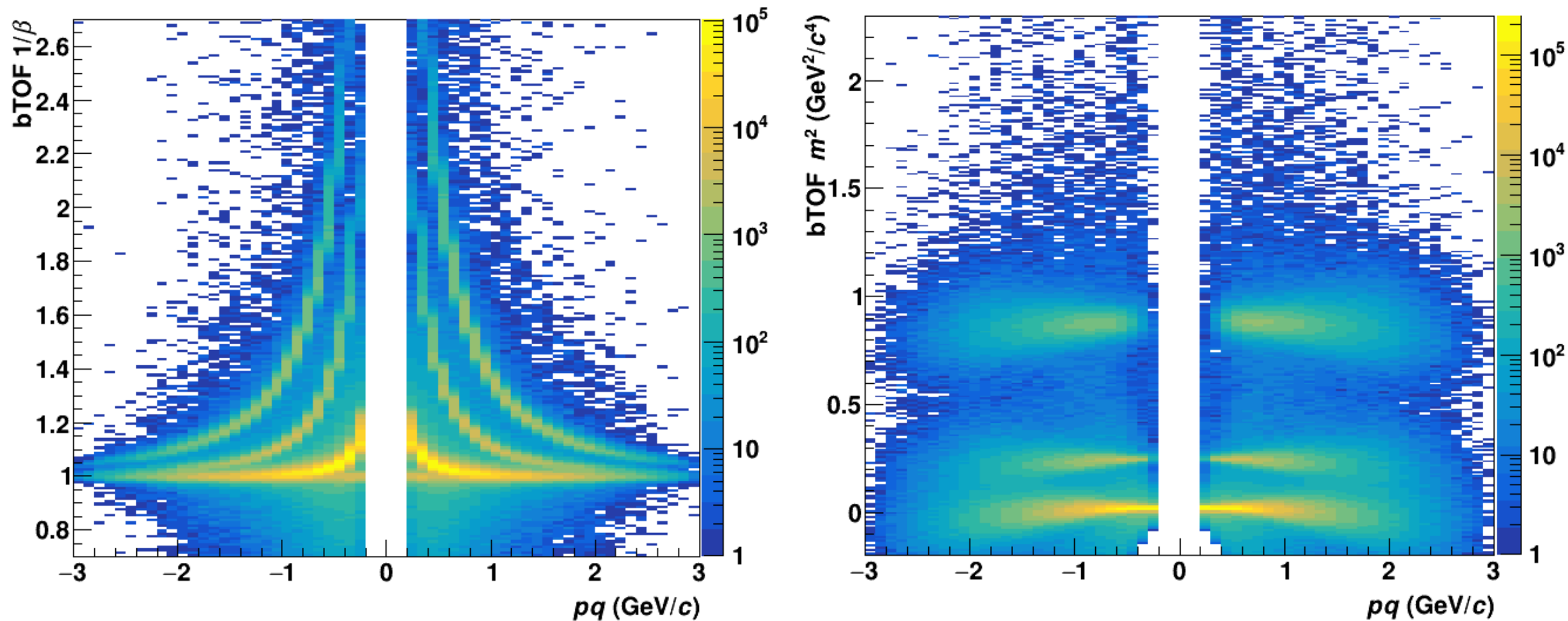
Senjie Zhu

September 9, 2022

Datasets

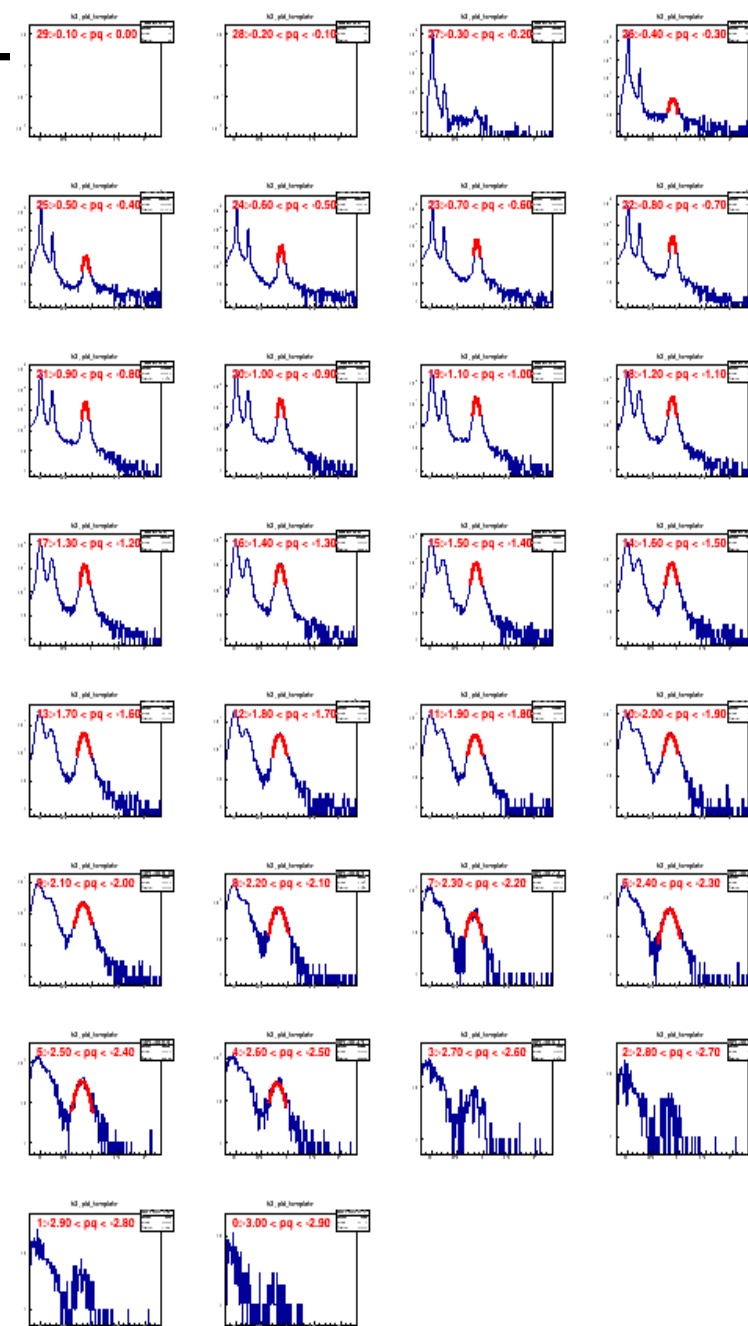
- Dataset:
st_physics,trgsetupname=production_pAu200_2015,production=P16id
- Lib:SL20a
- Trigger:VPDMB-30(500904)
- 31 runs:
{16124017, 0}, {16124018, 1}, {16124019, 2}, {16124033, 3},
{16124034, 4}, {16125003, 5}, {16125014, 6}, {16125015, 7},
{16125016, 8}, {16125024, 9}, {16125035, 10}, {16125038, 11},
{16125039, 12}, {16125042, 13}, {16125043, 14}, {16125046, 15},
{16125050, 16}, {16125052, 17}, {16125053, 18}, {16125054, 19},
{16125056, 20}, {16125057, 21}, {16125058, 22}, {16125060, 23},
{16125061, 24}, {16125062, 25}, {16125063, 26}, {16126006, 27},
{16126007, 28}, {16126008, 29}, {16126009, 30}
- Event Selection
 - $-30 < V_z < 30$
- Primary Track Selection
 - $p_T: 0.2 \sim 20 \text{ GeV}/c$
 - $dca < 3 \text{ cm}$
 - $nHitsFit \geq 20$
 - $\frac{nHitsFit}{nHitsPoss} \geq 0.52$
 - $-1 < \eta < 1$

TOF

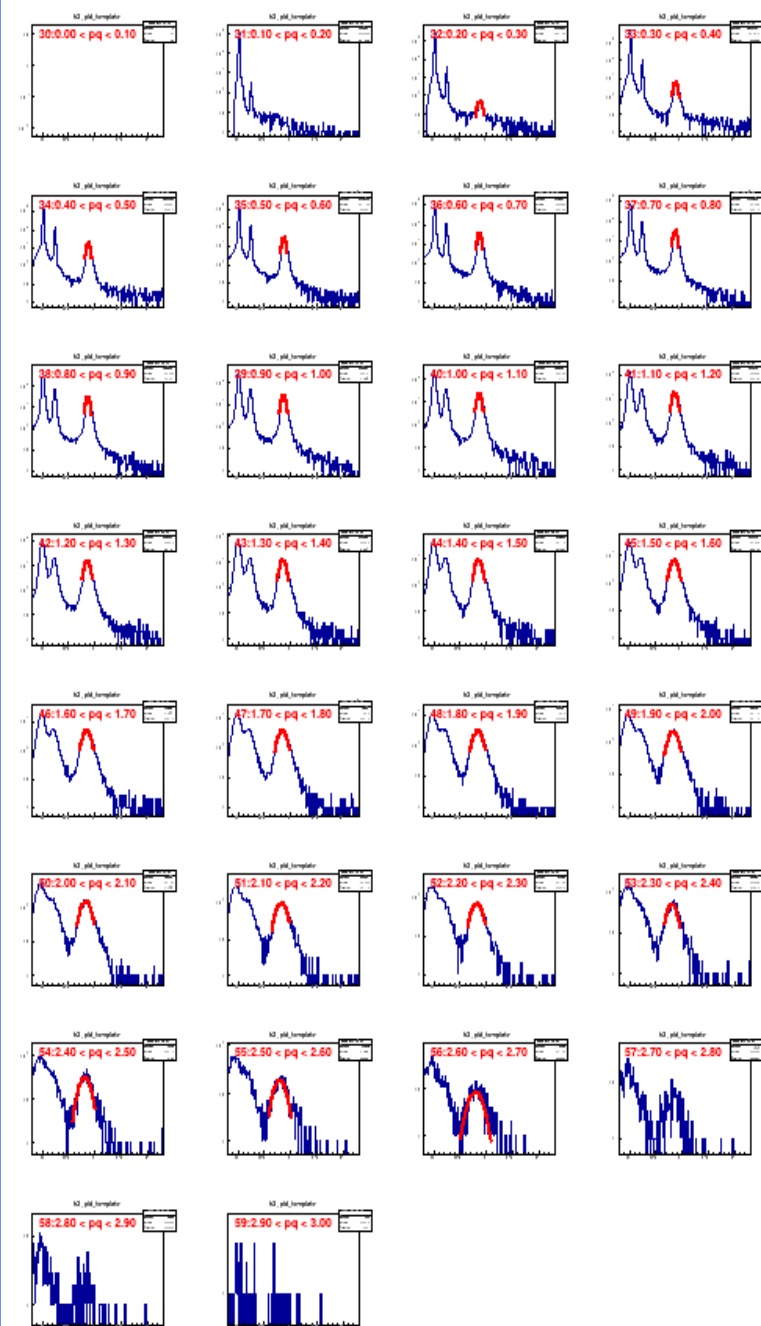


m^2 fitting(proton)

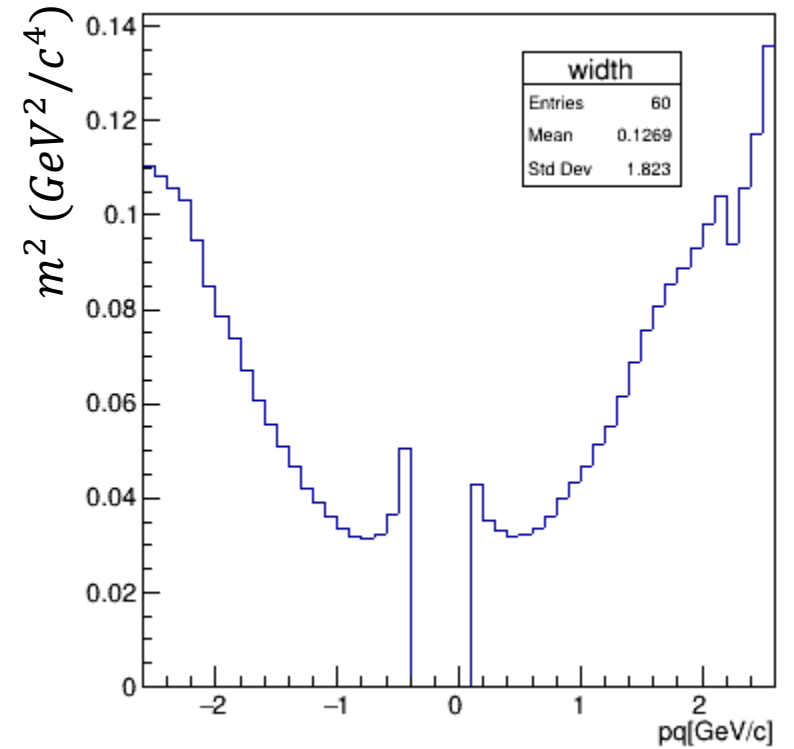
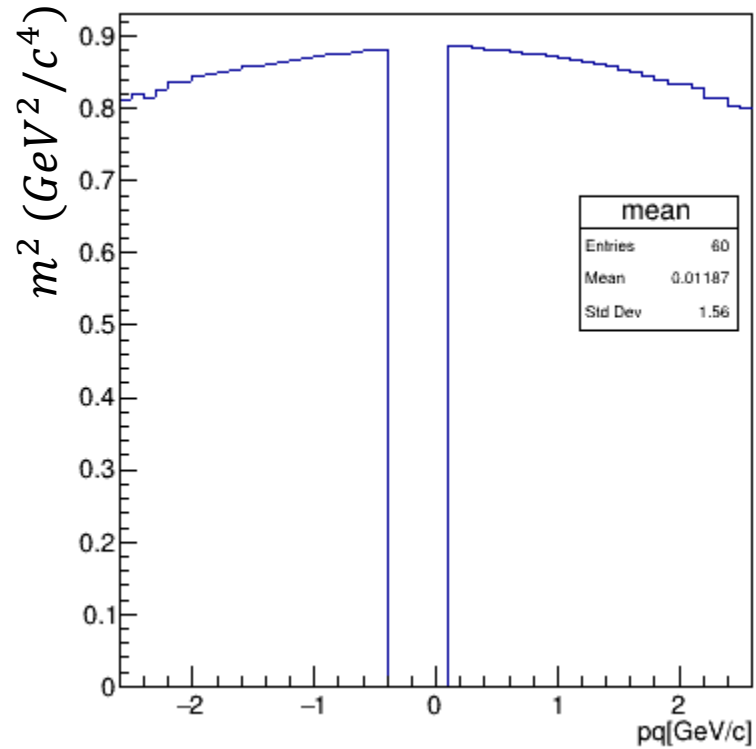
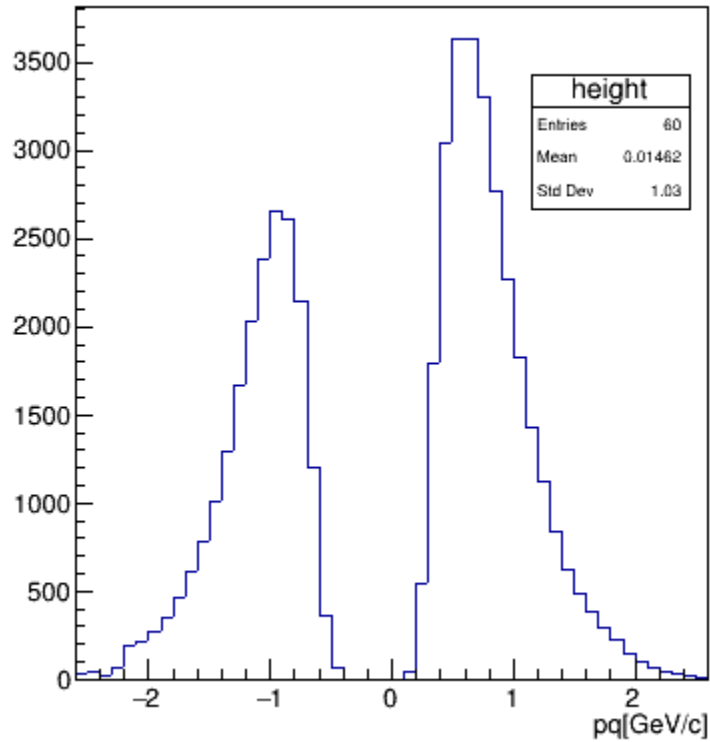
minus



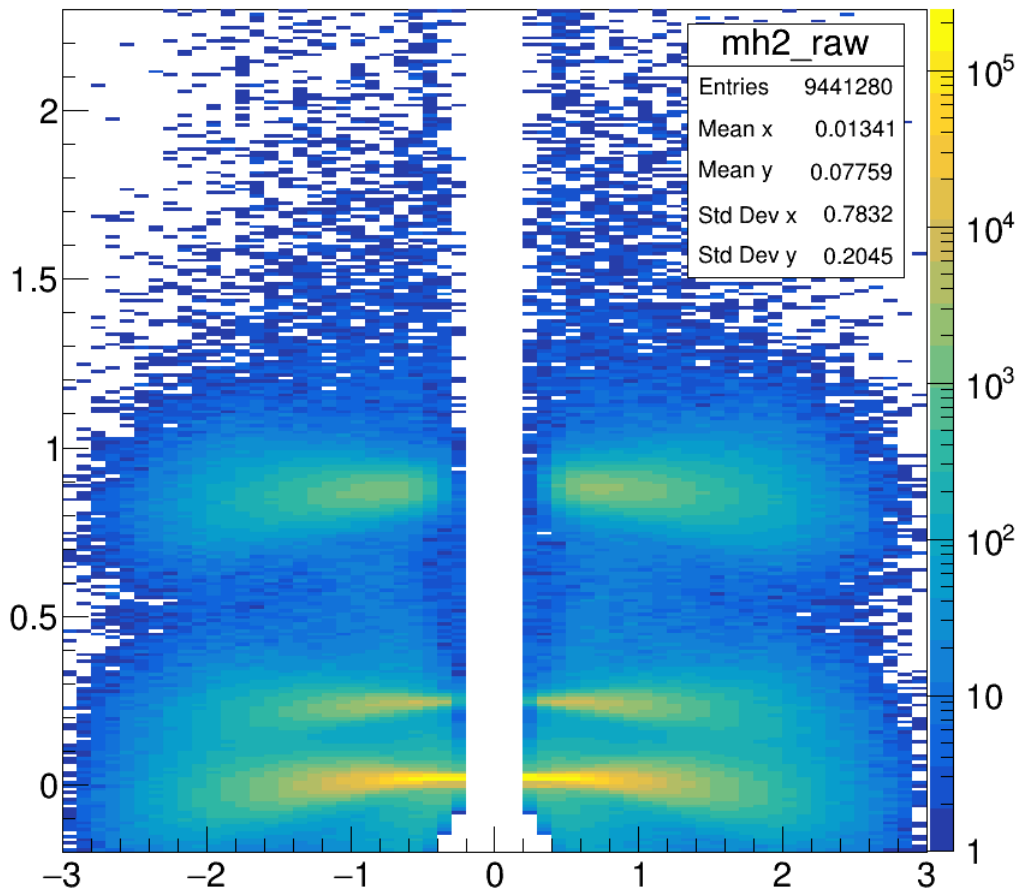
plus



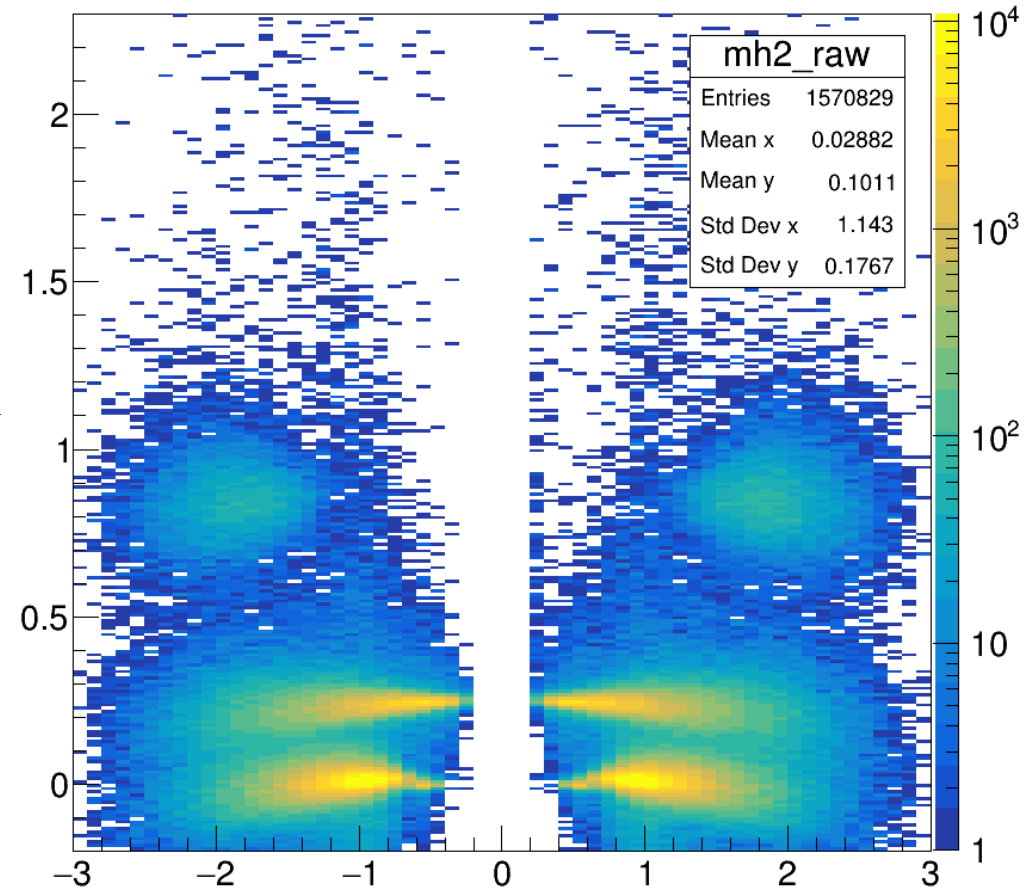
m^2 fitting results(proton)



m^2 fitting

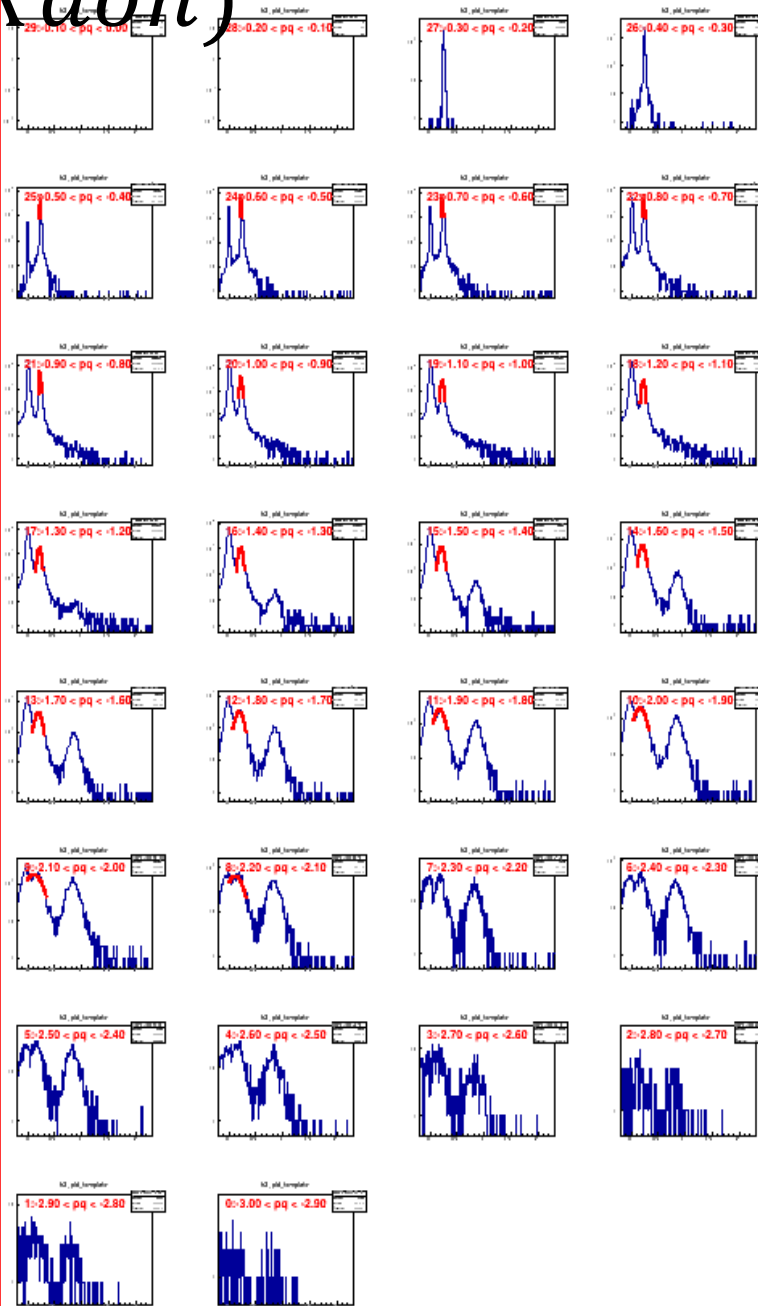


Pre cut
 $|n\sigma_K| < 1$

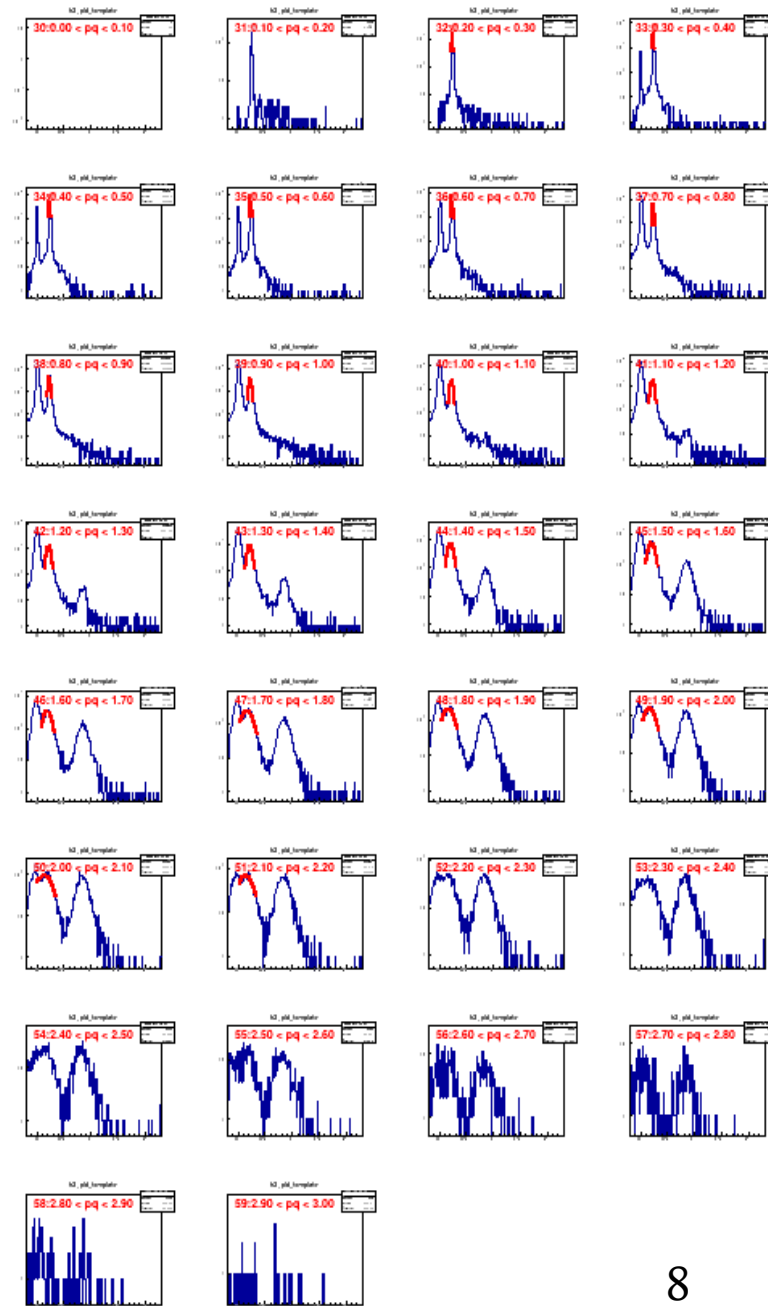


m^2 fitting result(Kaon)

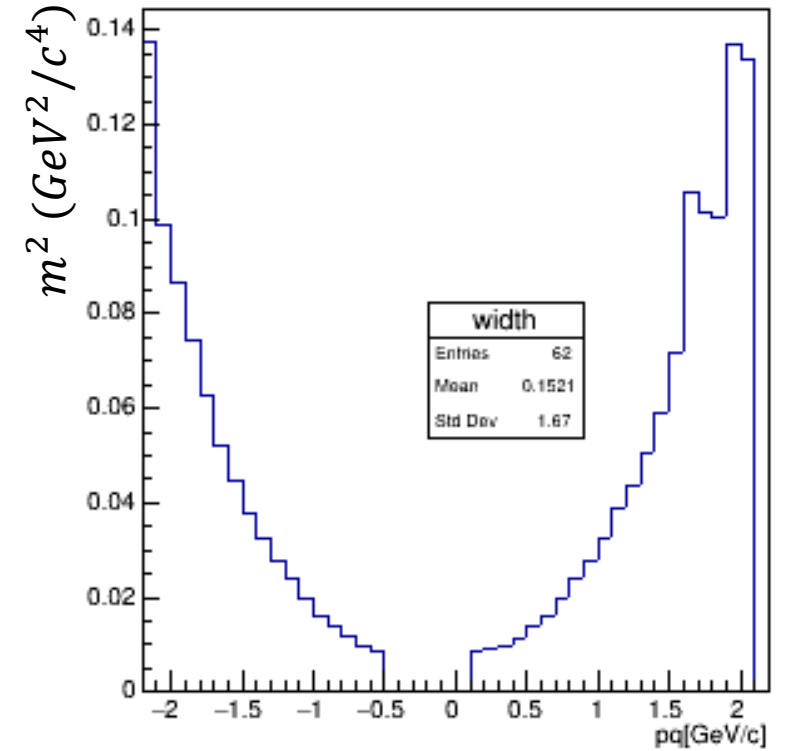
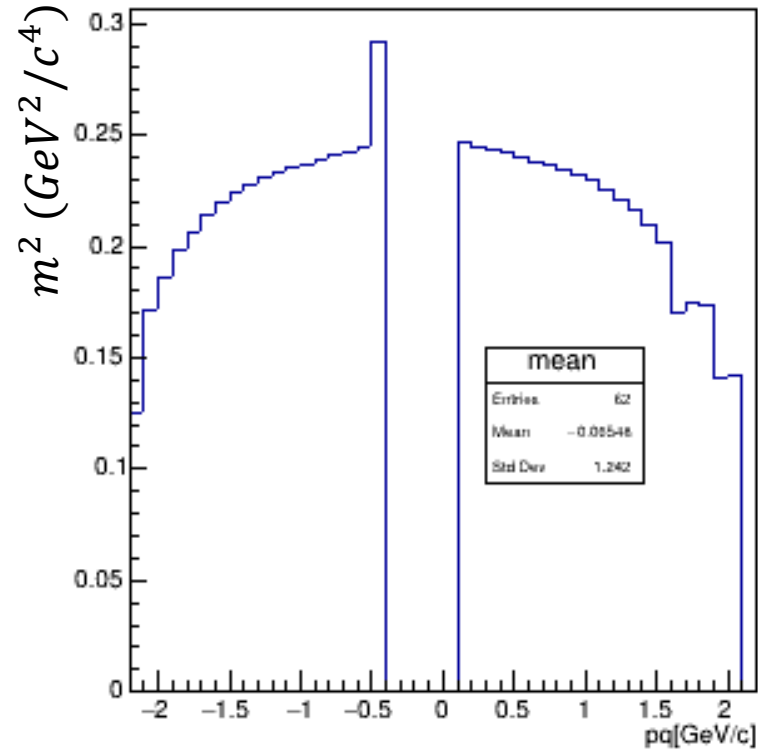
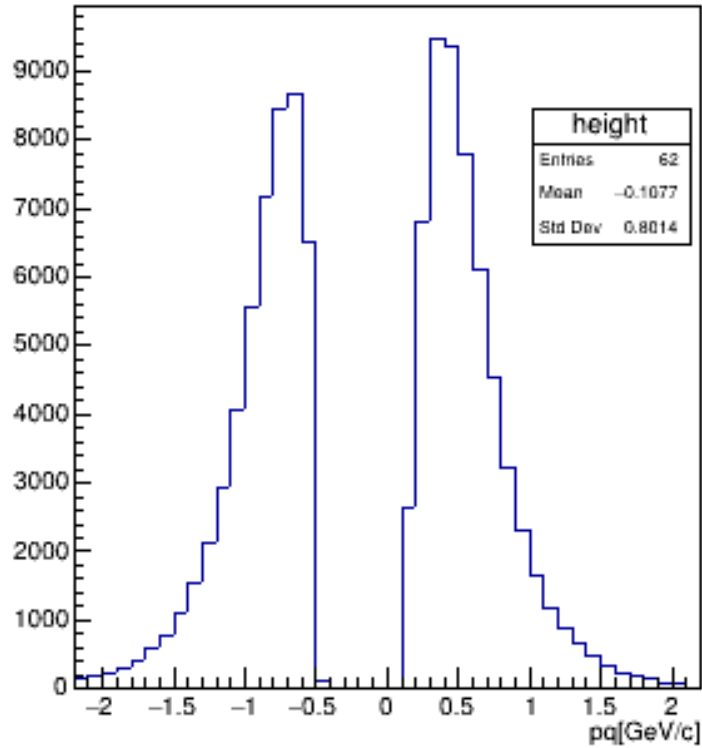
minus



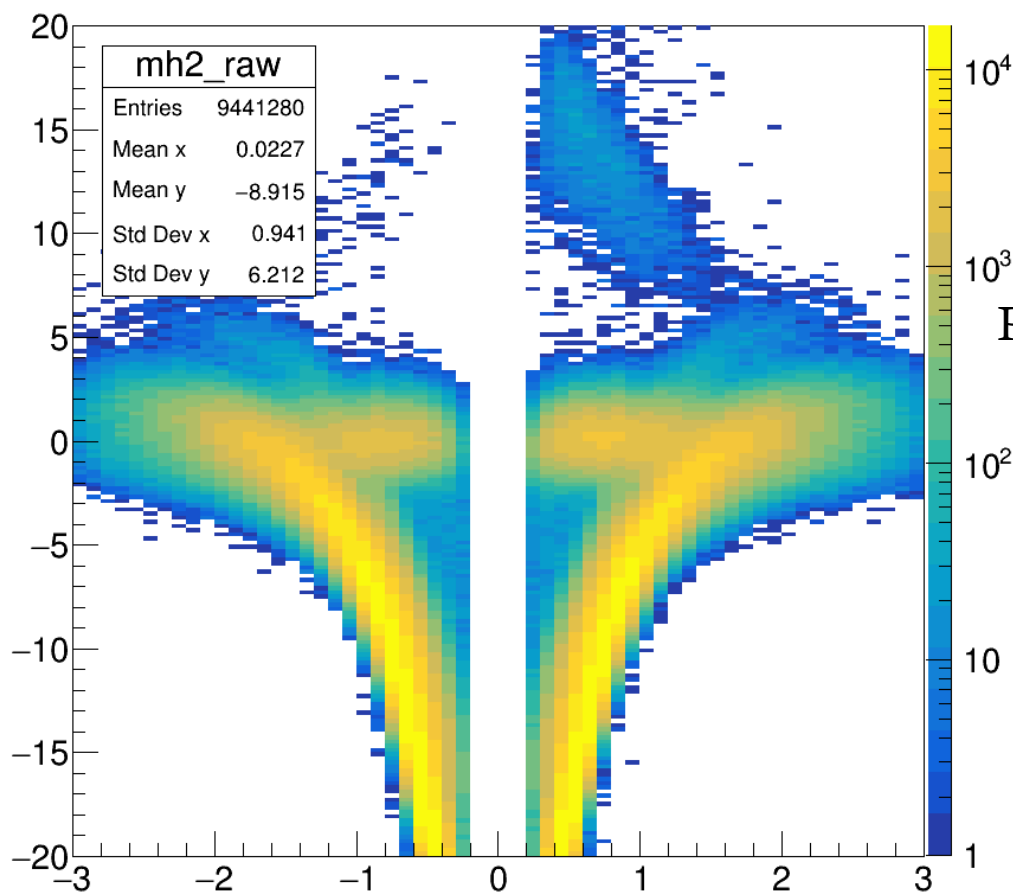
plus



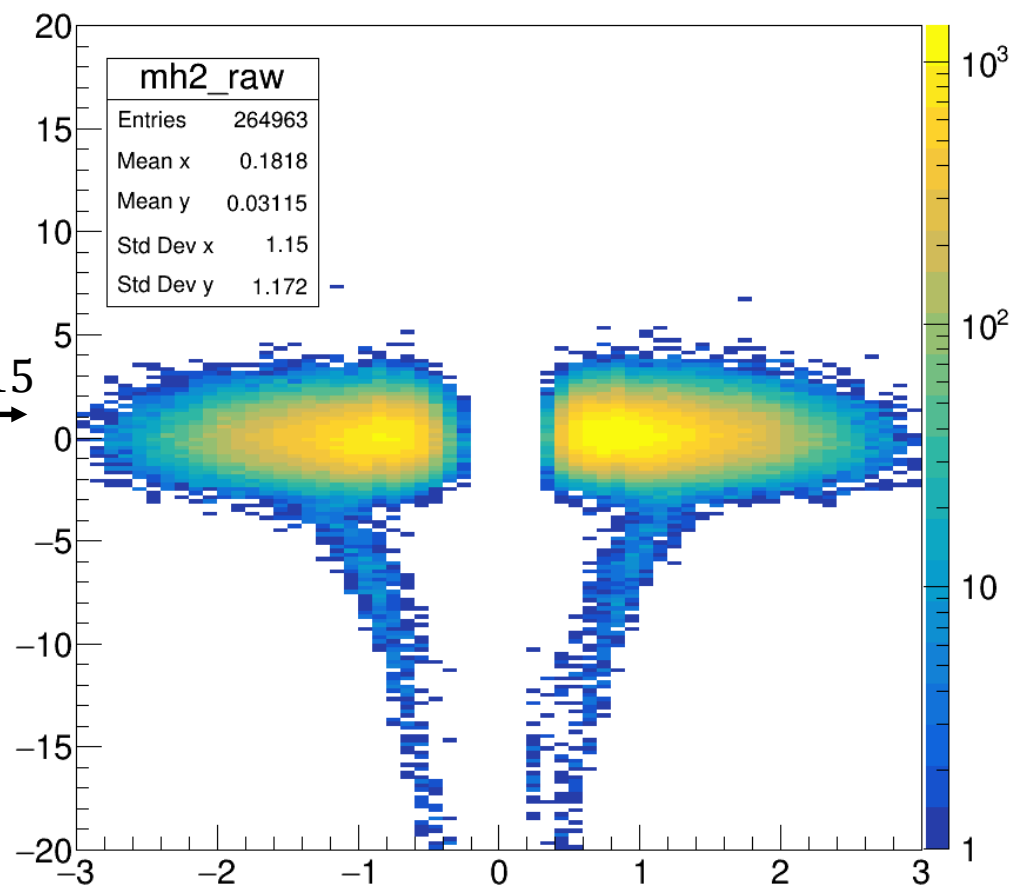
m^2 fitting results(Kaon)



nSigmaProton(proton)

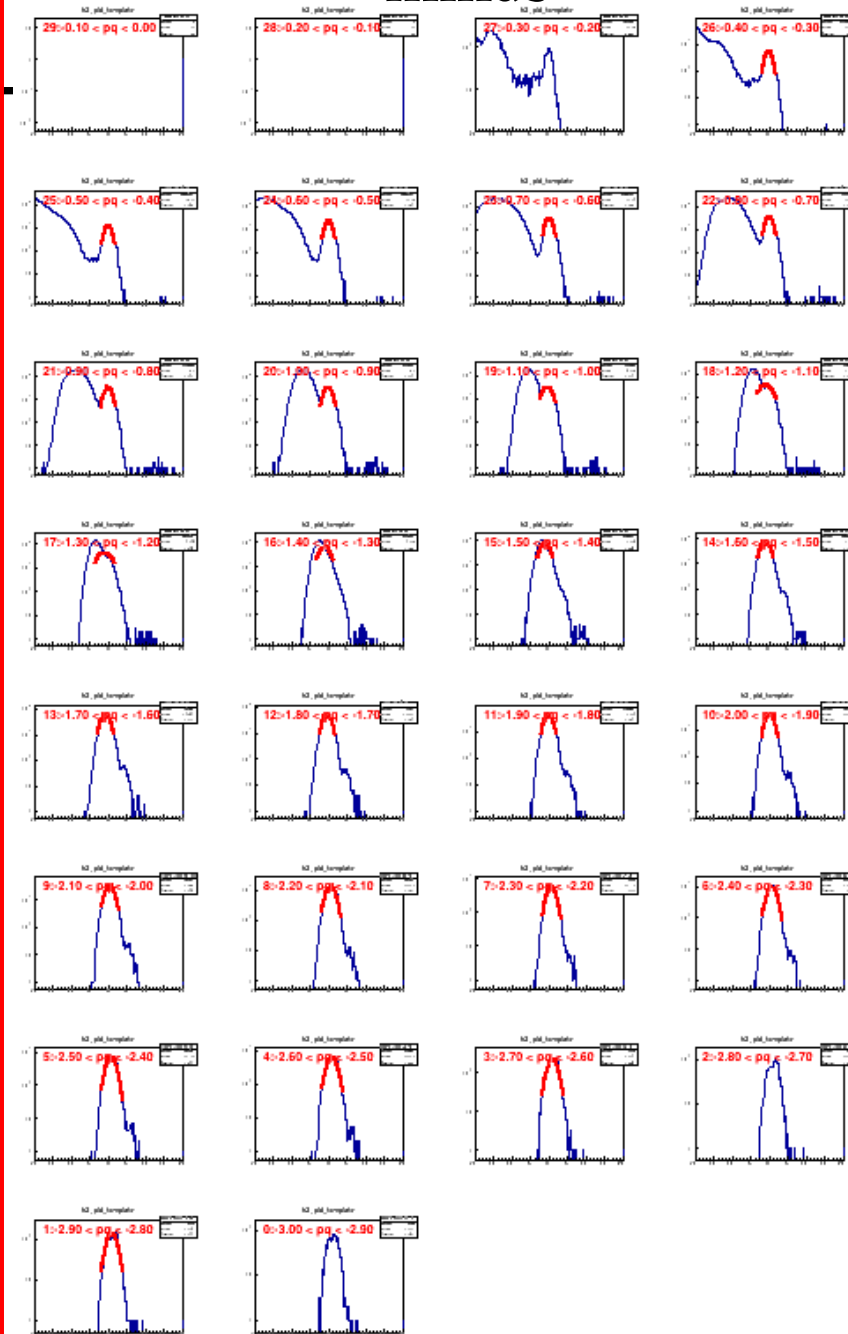


Pre cut
 $|m^2 - 0.83| < 0.15$

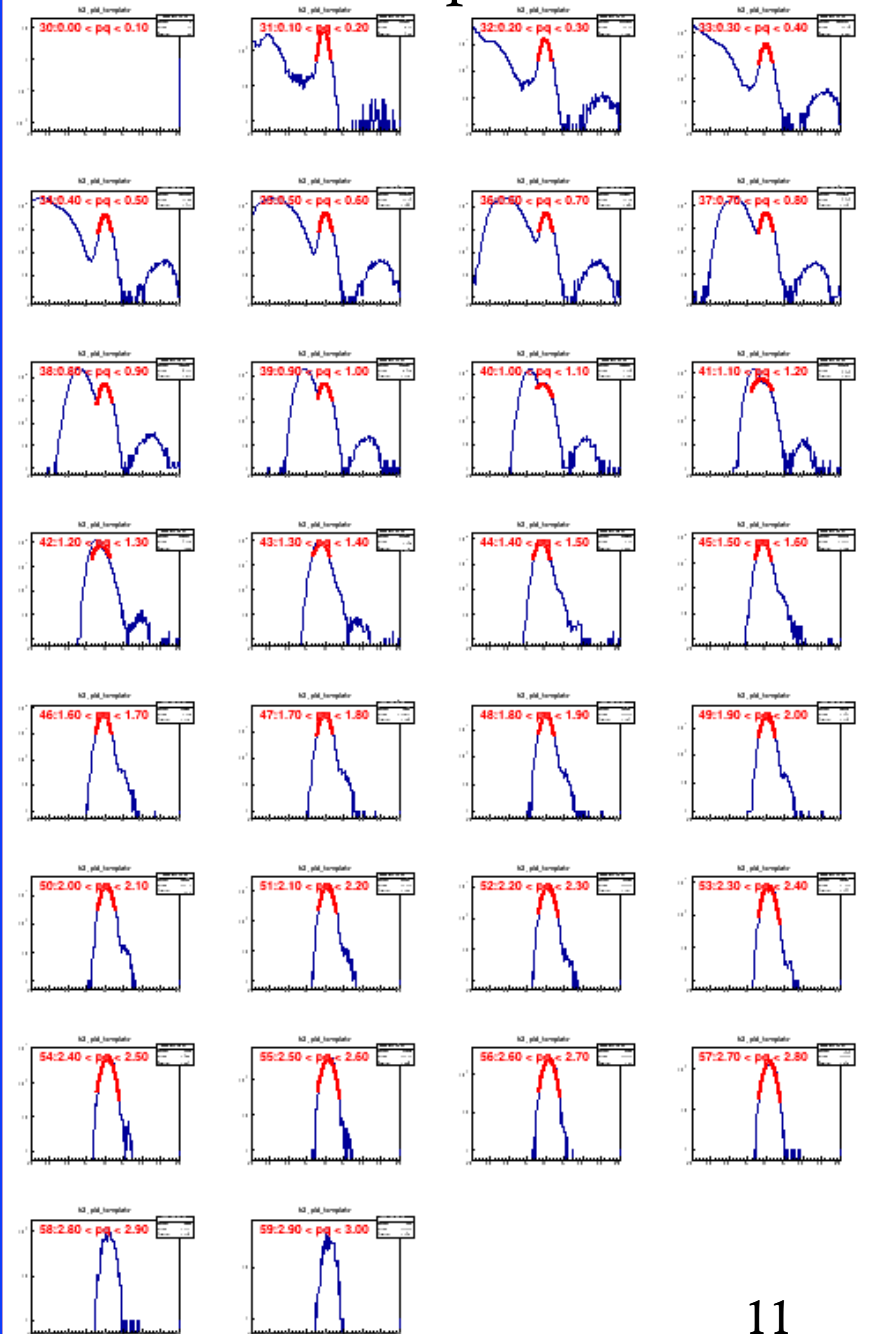


nSigmaProton (proton without cut)

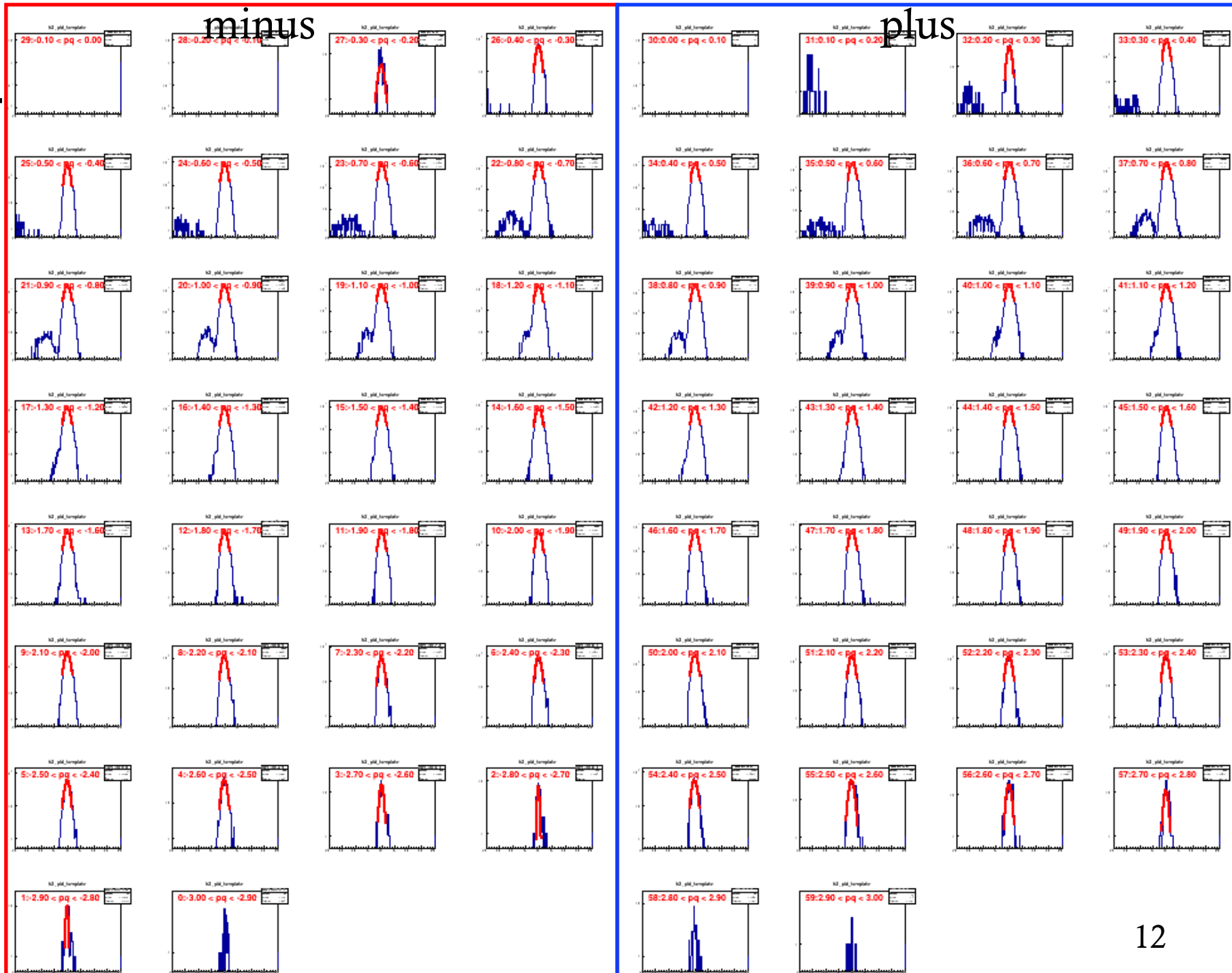
minus



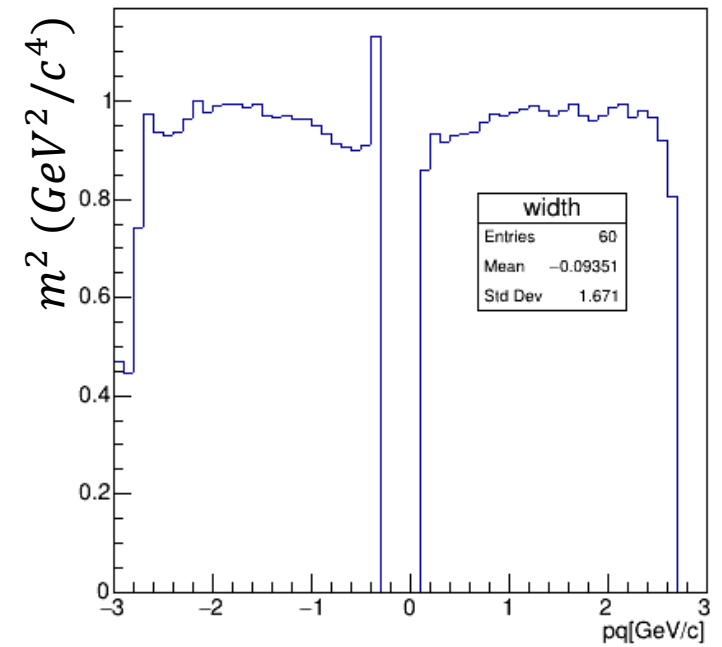
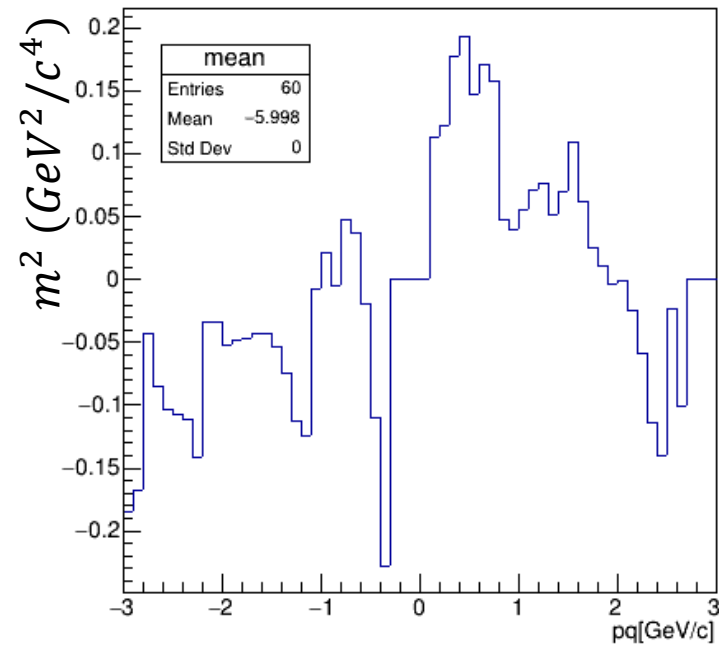
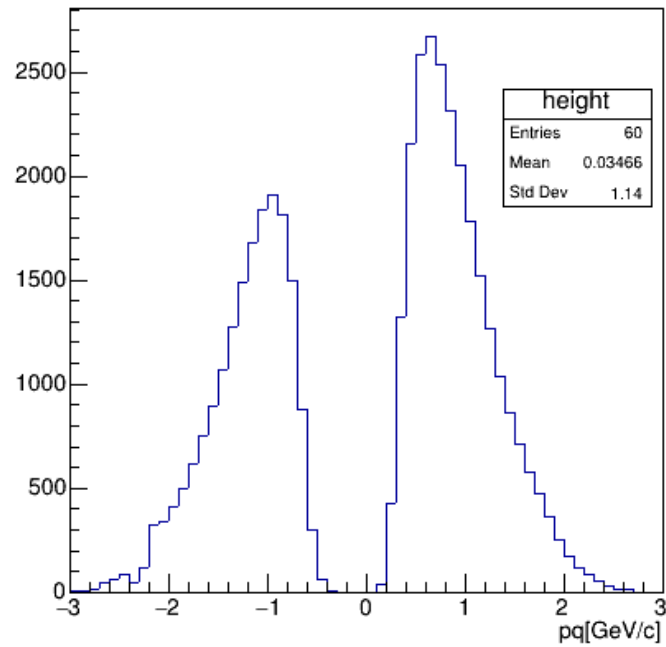
plus



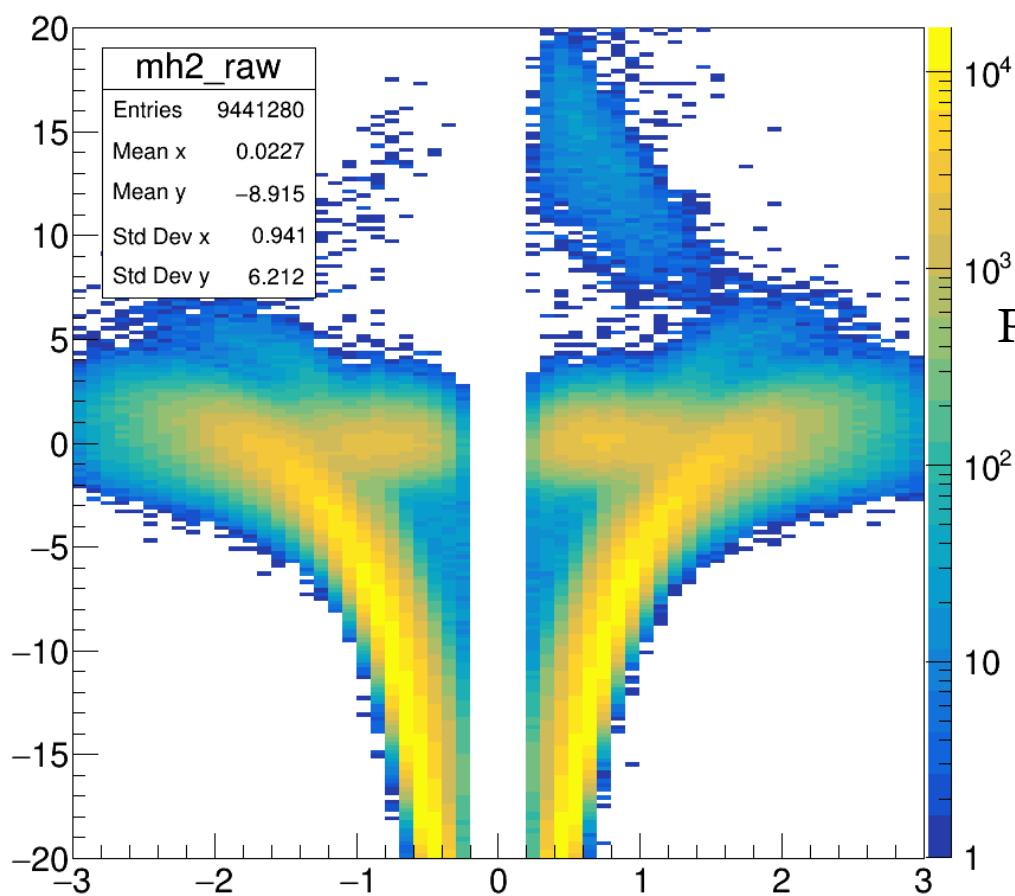
nSigmaProton (proton with cut)



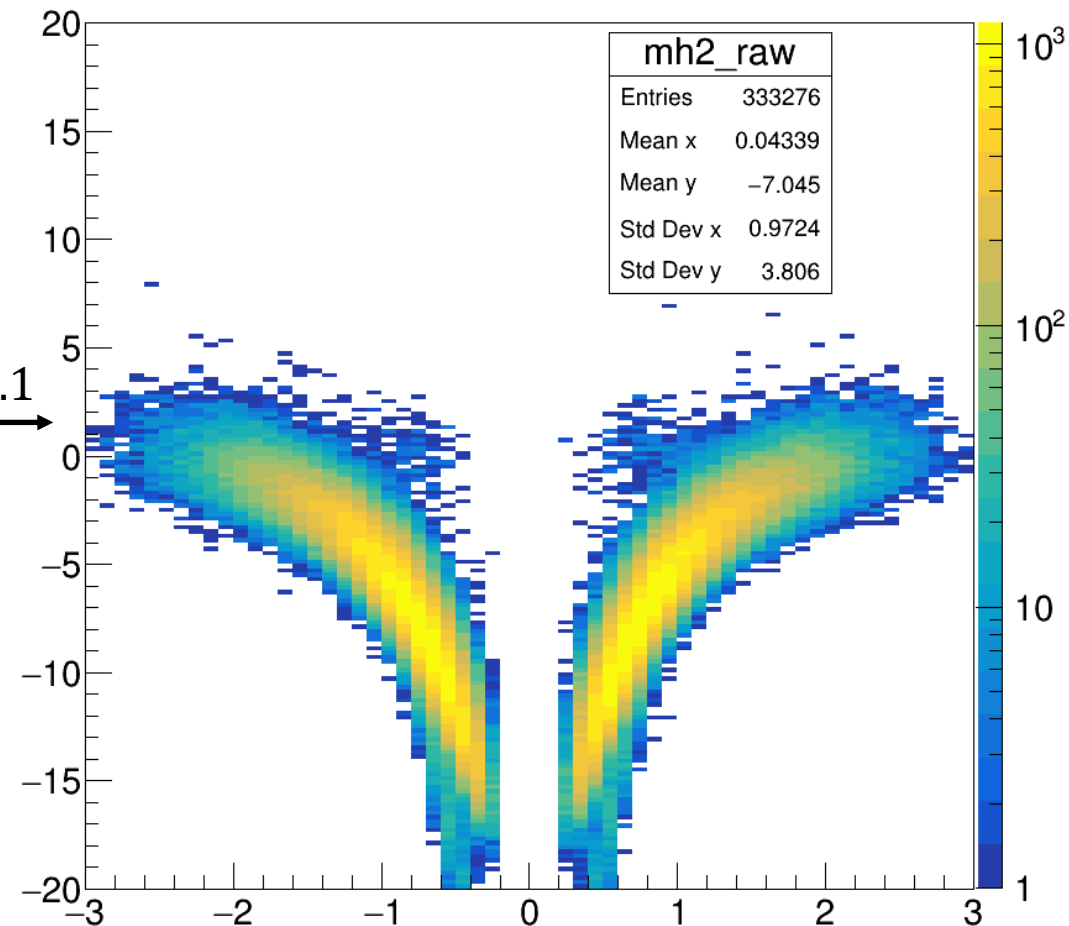
nSigmaProton Results(proton)



nSigmaProton(Kaon)

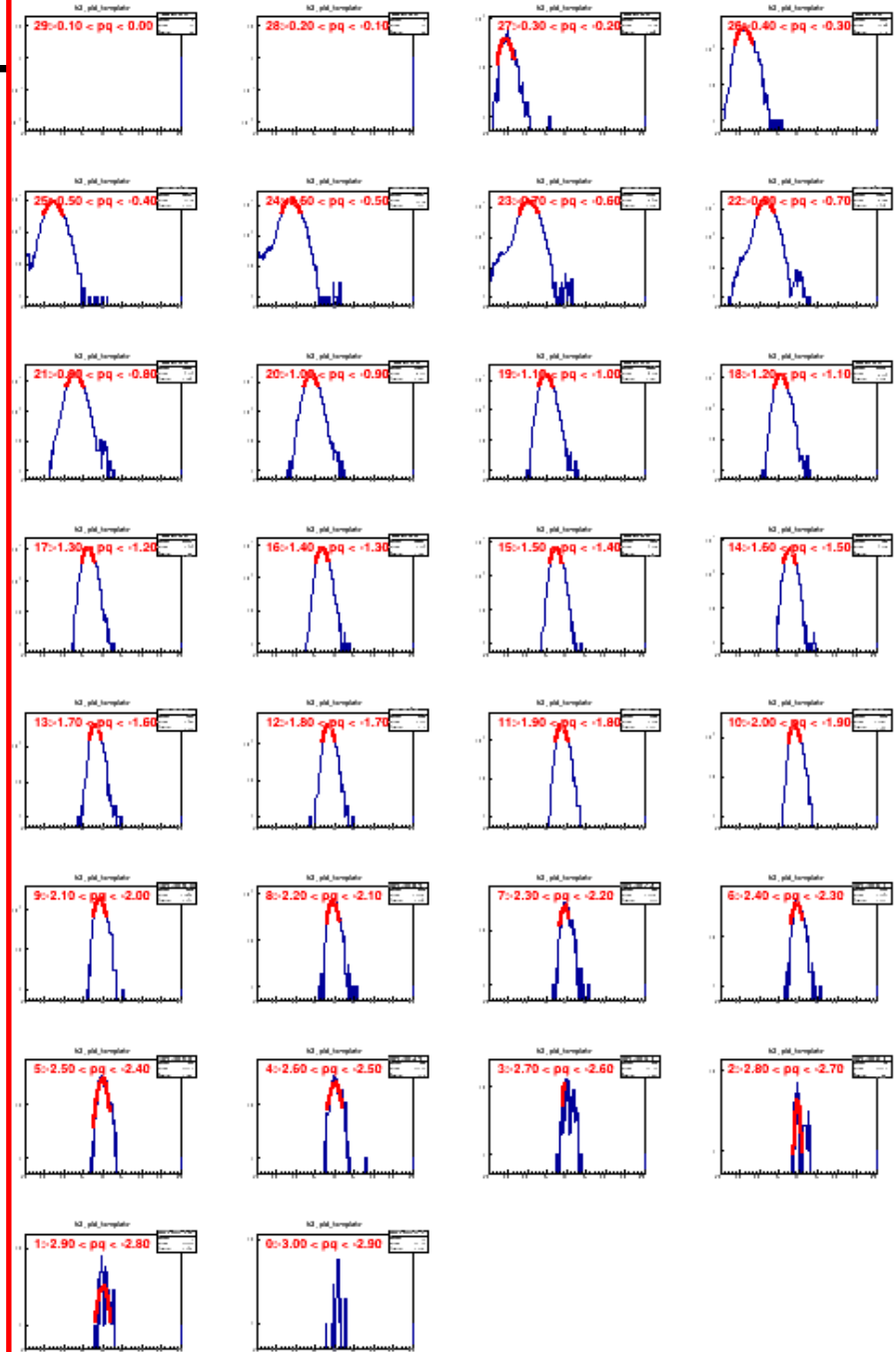


Pre cut
 $|m^2 - 0.3| < 0.1$

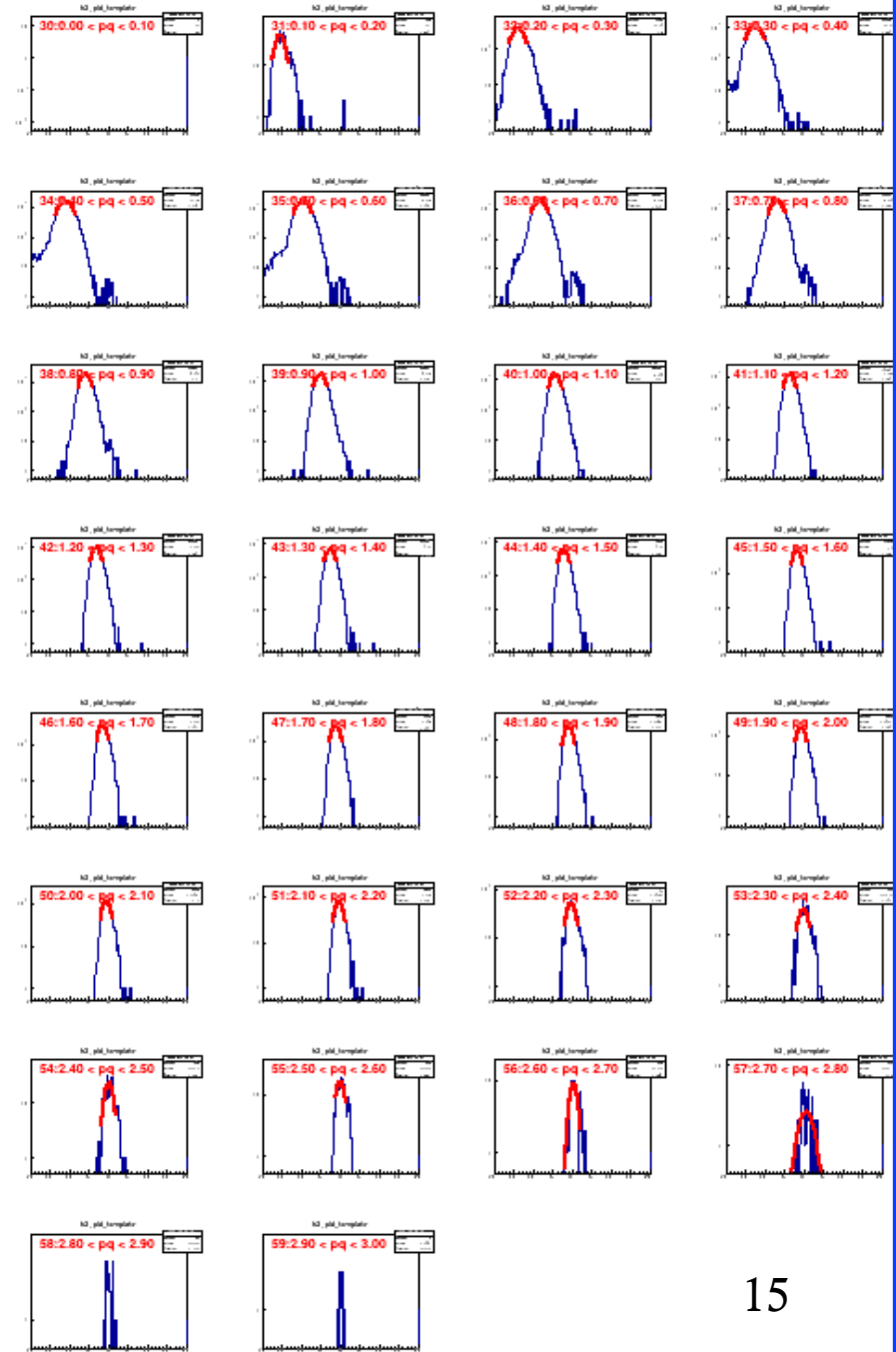


nSigmaProton (Kaon with cut)

minus



plus



nSigmaProton Results(proton)

