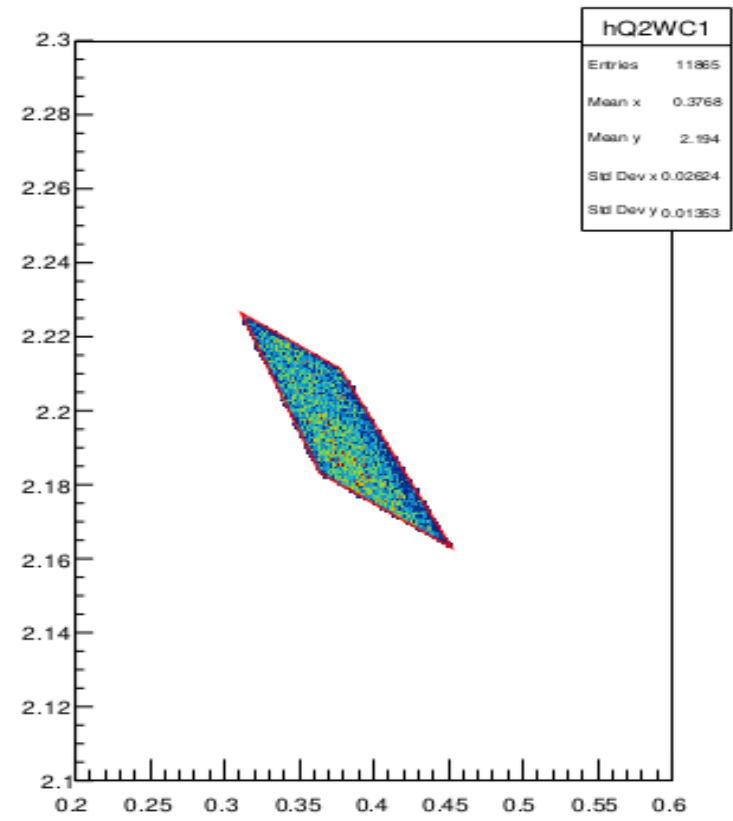
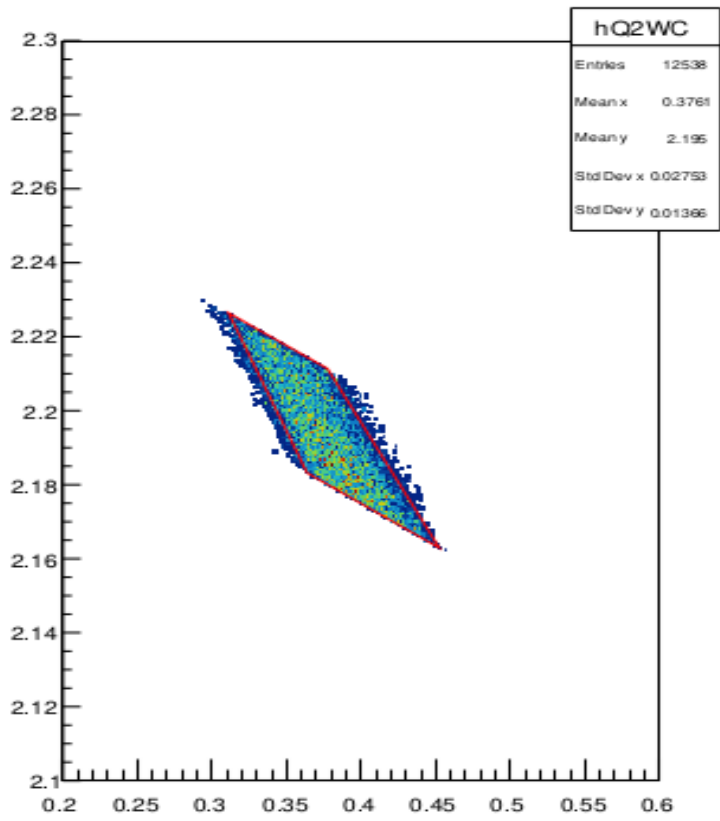
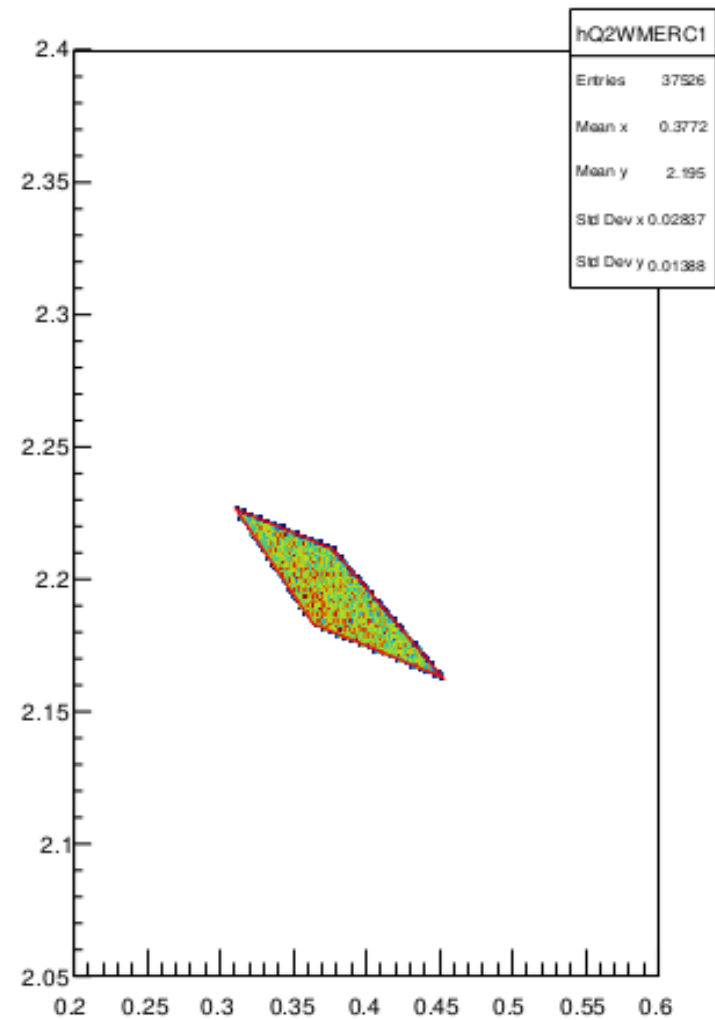
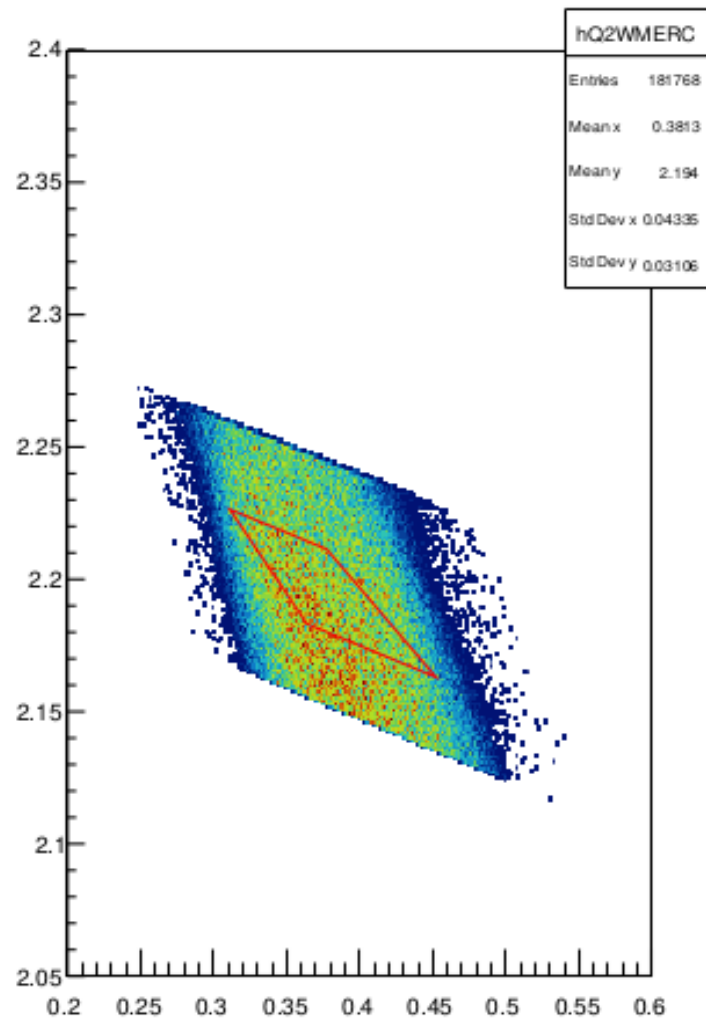


- Working to analyze the summer 2019 data
 - $Q^2 = 0.38$ and 0.42 GeV^2
 - Each Q^2 has **3 ϵ** (low, mid & high)
- First analyzing $Q^2 = 0.38 \text{ GeV}^2$

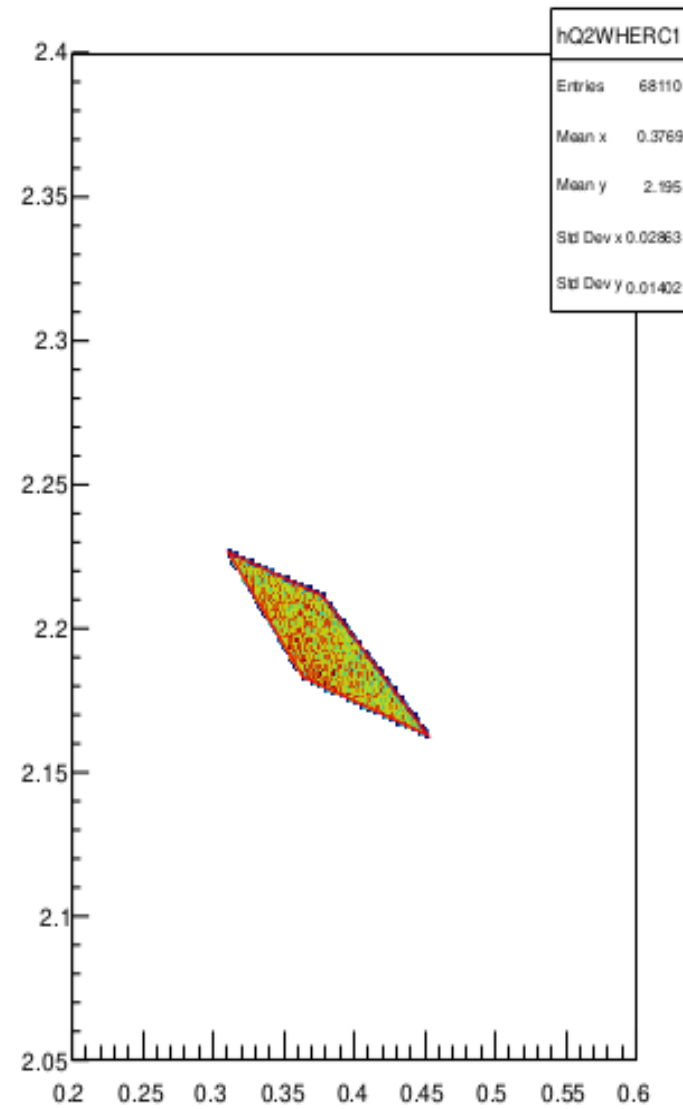
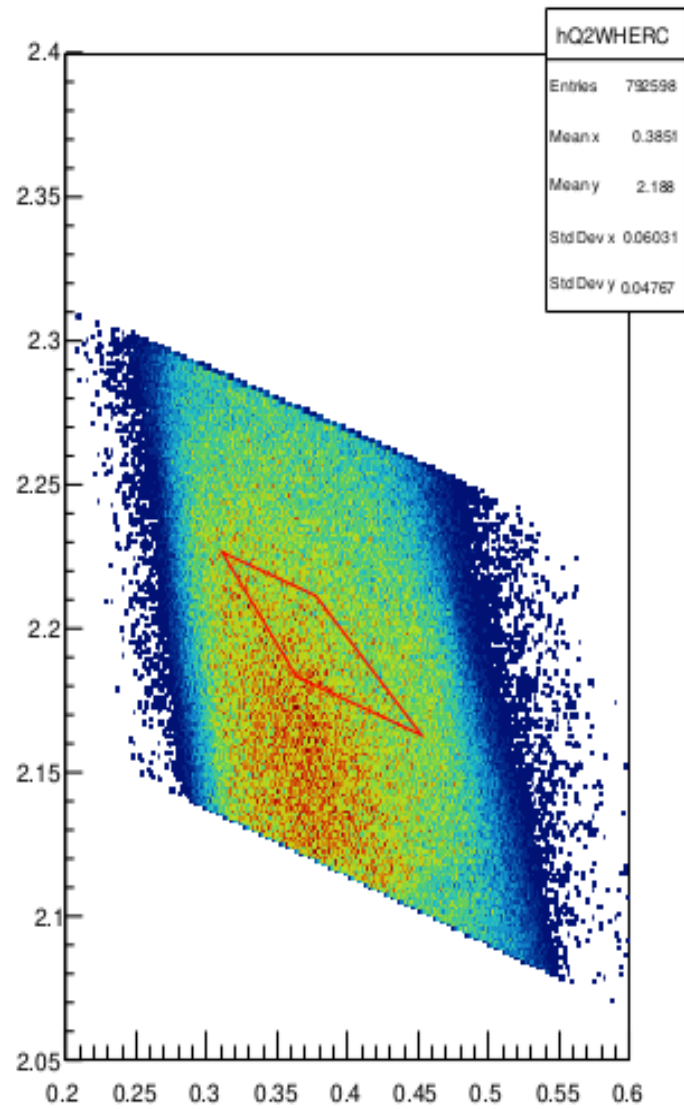
Diamond cut updated



Diamond cut updated

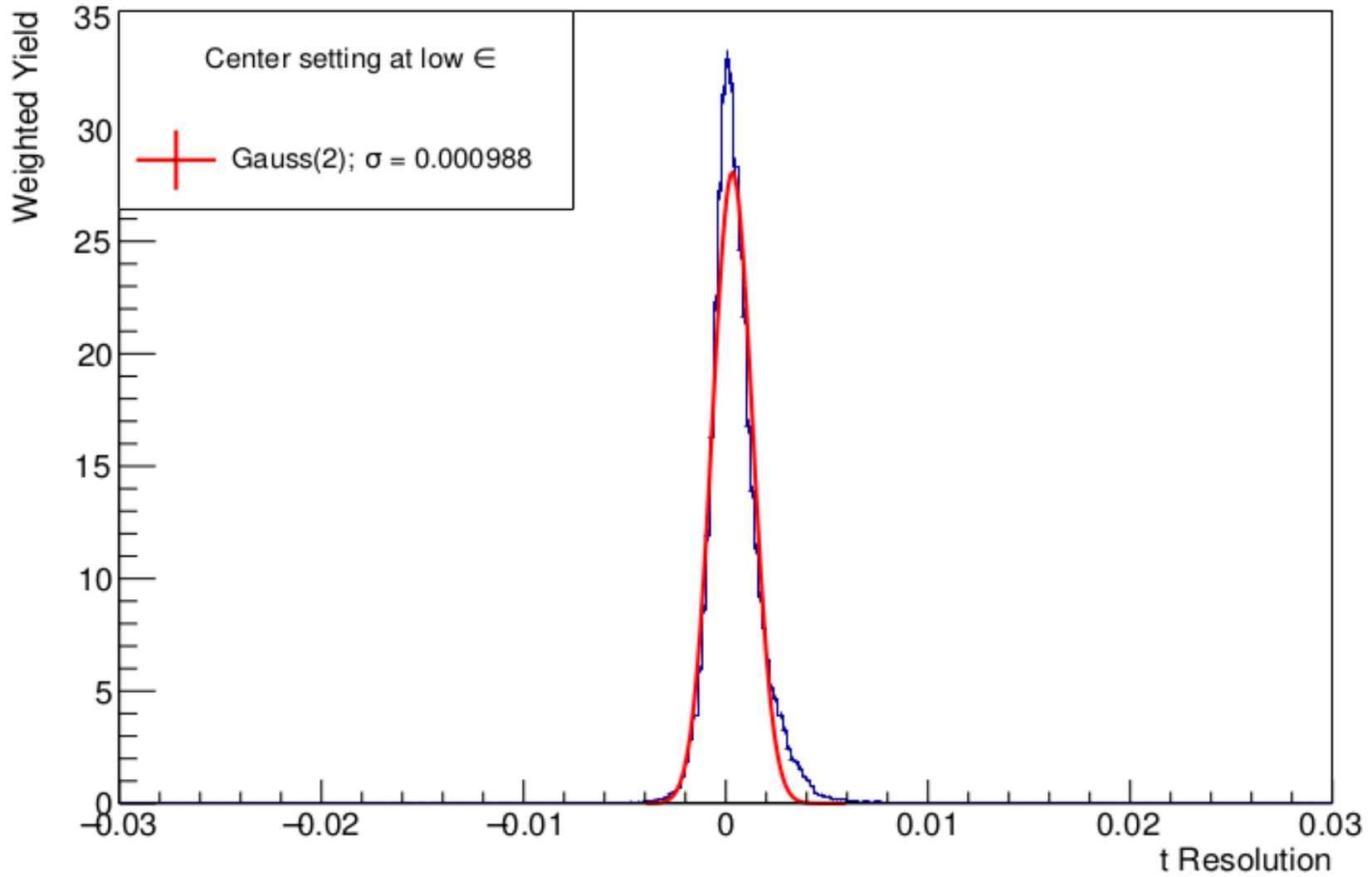


Diamond cut updated



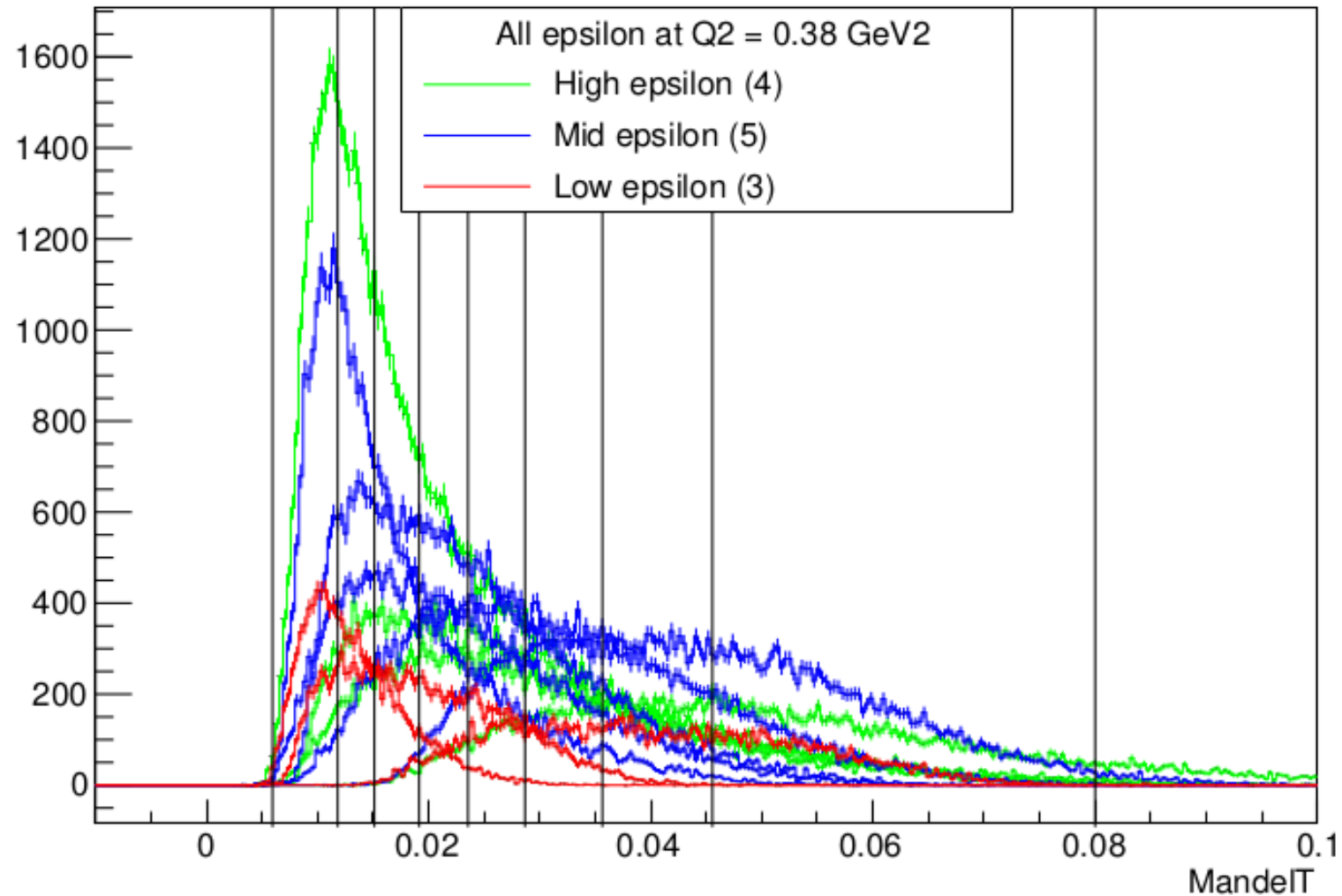
Checked t Resolution

t Resolution (t-ti)



t binning

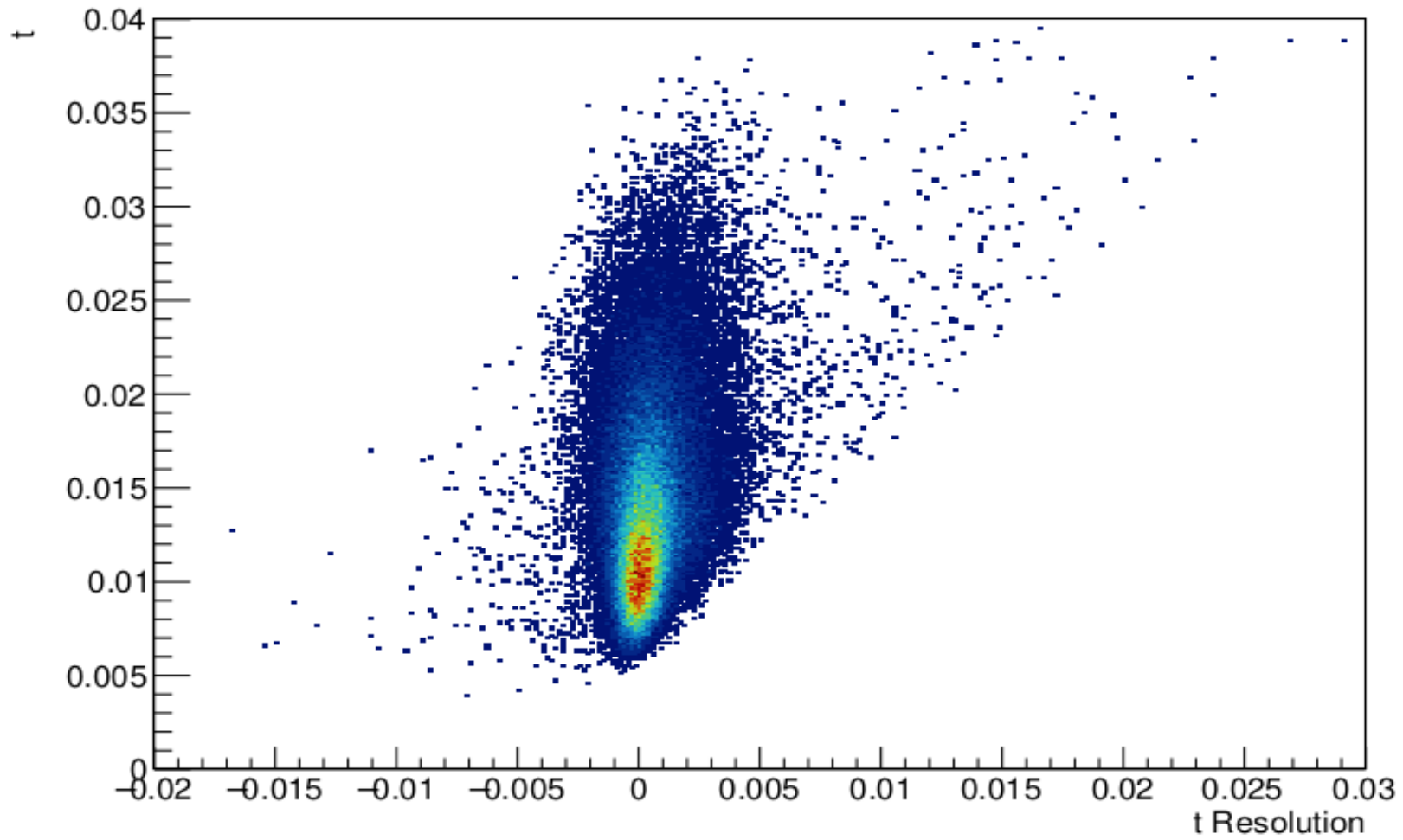
MandelT



I also checked the t resolution for each t bin from the center setting of SIMC at low ϵ .

Checked t Resolution

t Resolution vs t



Cuts

```
[{"P_hod_goodstarttime" : (P_hod_goodstarttime == 1.0)}, {"H_hod_goodstarttime" : (H_hod_goodstarttime == 1.0)}, {"H_gtr_dp" : ((H_gtr_dp > -8) & (H_gtr_dp < 8))}, {"P_gtr_dp" : ((P_gtr_dp > -10) & (P_gtr_dp < 20))}, {"H_gtr_th" : ((H_gtr_xp > -0.08) & (H_gtr_xp < 0.08))}, {"H_gtr_ph" : ((H_gtr_yp > -0.045) & (H_gtr_yp < 0.045))}, {"P_gtr_th" : ((P_gtr_xp > -0.06) & (P_gtr_xp < 0.06))}, {"P_gtr_ph" : ((P_gtr_yp > -0.04) & (P_gtr_yp < 0.04))}, {"P_gtr_beta" : ((abs(P_gtr_beta-1)) < 0.15)}, {"H_cal_etottracknorm" : (H_cal_etottracknorm > 0.7)}, {"P_cal_etottracknorm" : (P_cal_etottracknorm < 0.7)}]
```

Pion Prompt peak

tcoin>=-1.0 && tcoin<= 1.0

$p(e, e'\pi^+)n$ events

mm>= 0.92 && mm<=0.96

Random selection (6 peaks)

(tcoin>=-15.0 && tcoin <= -9.0) || (tcoin>=7.0 && tcoin <=13.0)

t Resolution

hsdelta >=-8.0 && hsdelta <=8.0 && hsxptar >=-0.08 && hsxpfp <=0.08 && hsyptar >=-0.045 && hsyfpf <=0.045 && ssdelta >=-10.0 && hsdelta <=20.0 && ssxptar >=-0.06 && hsxpfp <=0.06 && hsyptar >=-0.04 && hsyfpf <=0.04 && missmass >= 0.92 && missmass <= 0.96)

- Diamond cut for $Q^2 = 0.38 \text{ GeV}^2$ is ready.
- t Resolution checked. Data binned in t (total 8 bins).
- Working to bin the data in Φ . Discussed with Garth, **16** Φ bins.
- Looked at Fortran scripts (**average_ratios.f**, **average_kinematics.f** & **calc_xsect.f**). Working to make the scripts for the summer 2019 data.