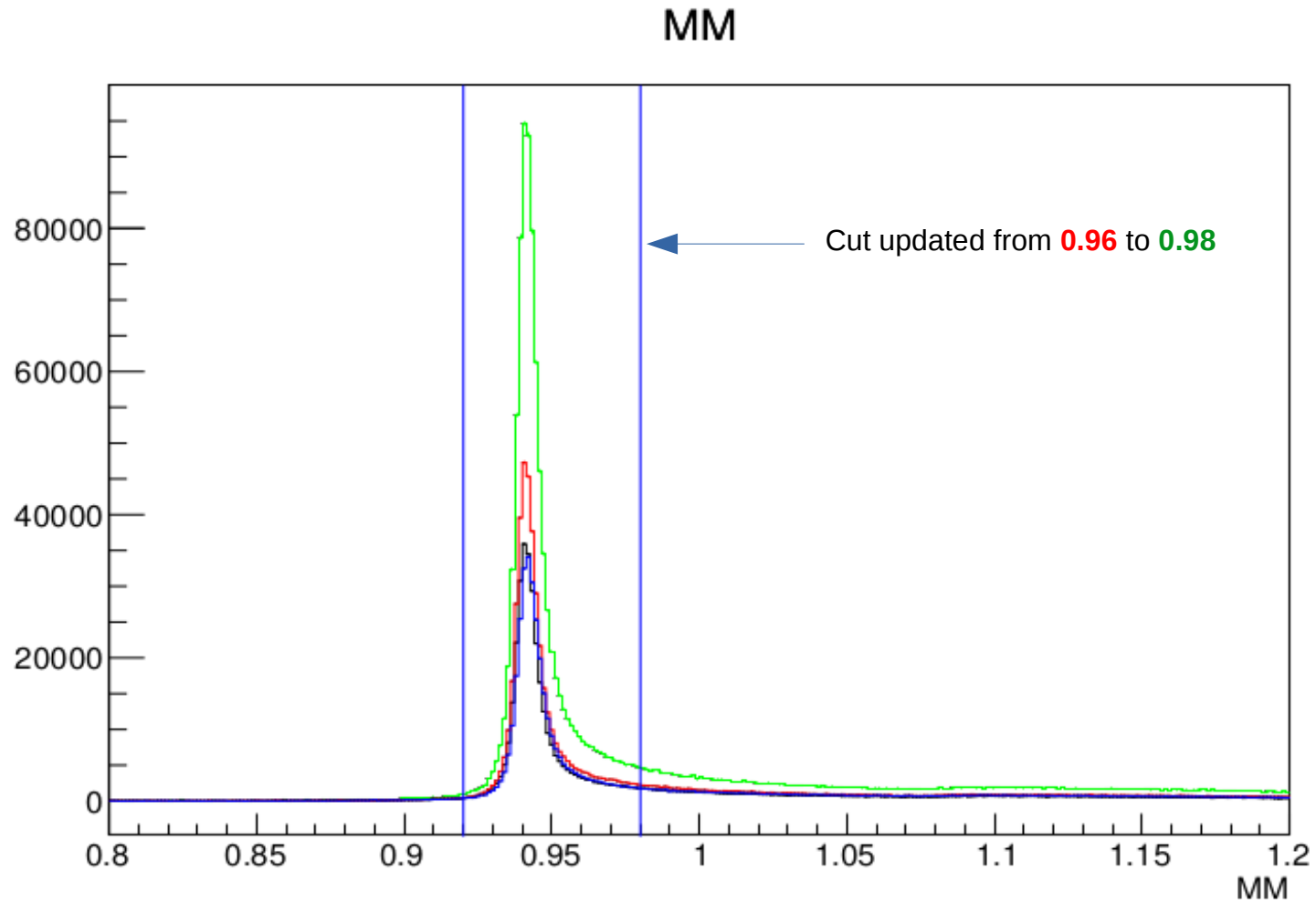


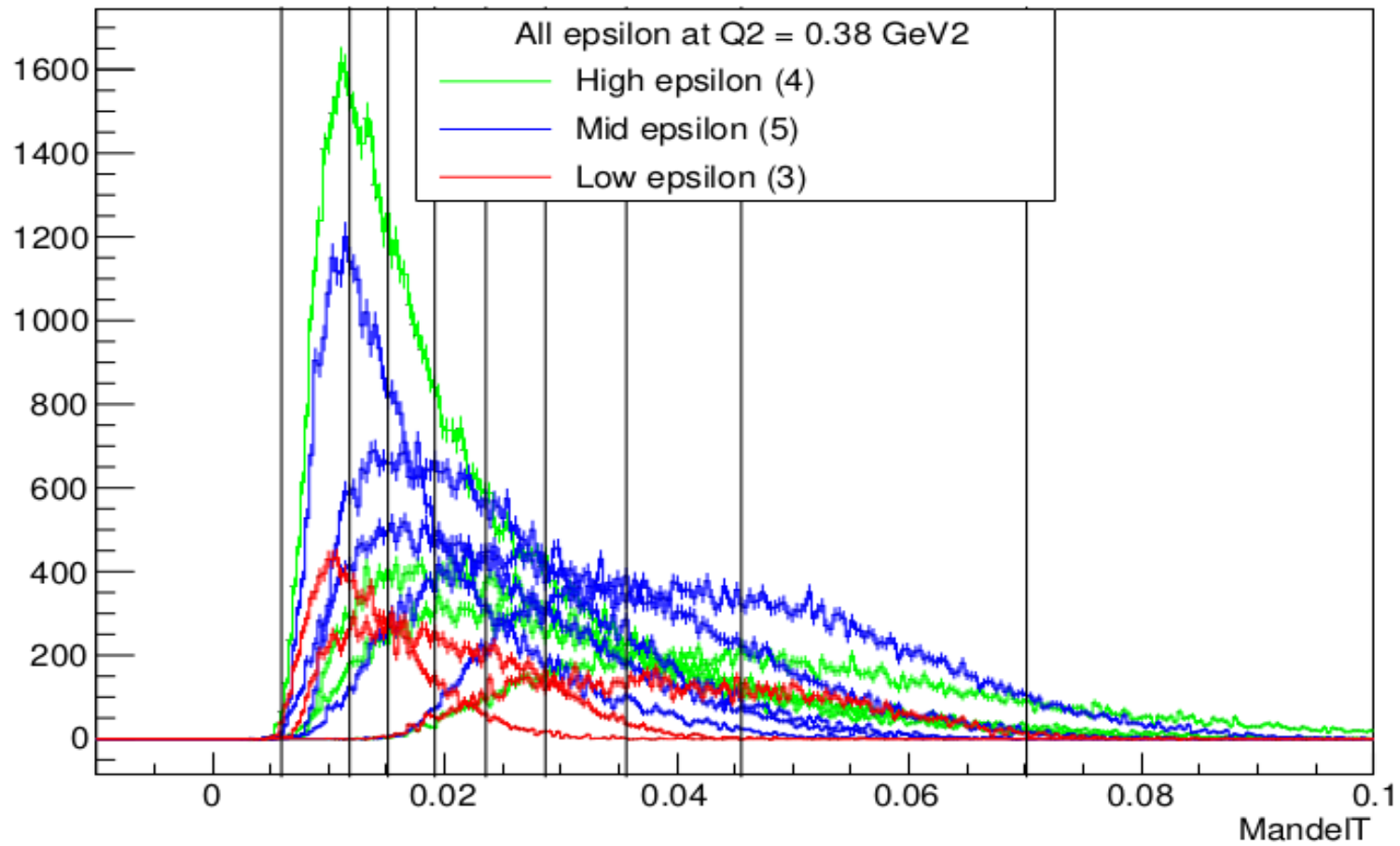
- Working to analyze the summer 2019 data
 - $Q^2 = 0.38$ and 0.42 GeV^2
 - Each Q^2 has **3 ϵ** (low, mid & high)

MMpi cut updated



8th t-bin updated

MandelT



Events per t-bin

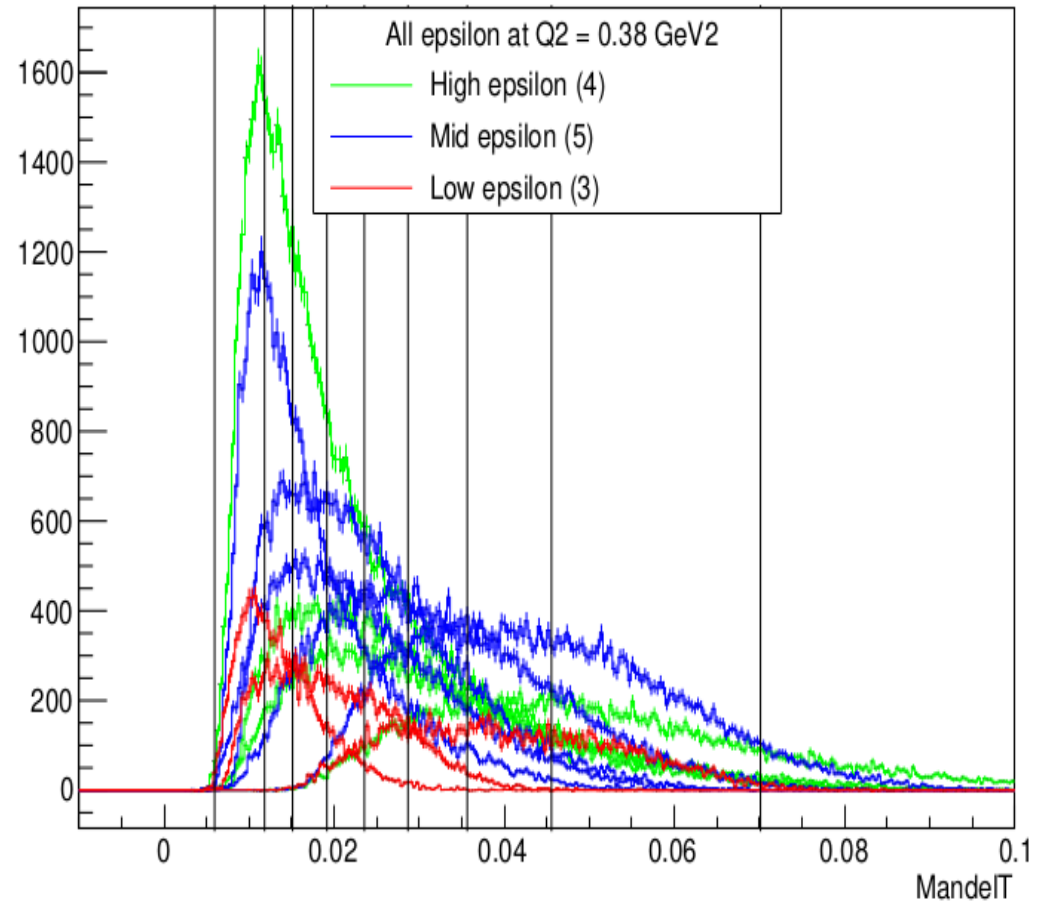
Epsilon	t	Events
ε1	t1	7417.83
ε1	t2	5708.33
ε1	t3	5961.17
ε1	t4	5239.83
ε1	t5	5339.67
ε1	t6	4877.50
ε1	t7	4372.67
ε1	t8	5461.33
ε2	t1	19301.50
ε2	t2	21210.50
ε2	t3	24628.70
ε2	t4	25129.50
ε2	t5	26375.00
ε2	t6	28340.00
ε2	t7	27162.70
ε2	t8	26122.70
ε3	t1	19296.70
ε3	t2	18224.80
ε3	t3	19713.80
ε3	t4	18252.30
ε3	t5	18007.00
ε3	t6	19461.20
ε3	t7	19496.80
ε3	t8	23526.80

Low epsilon

Mid epsilon

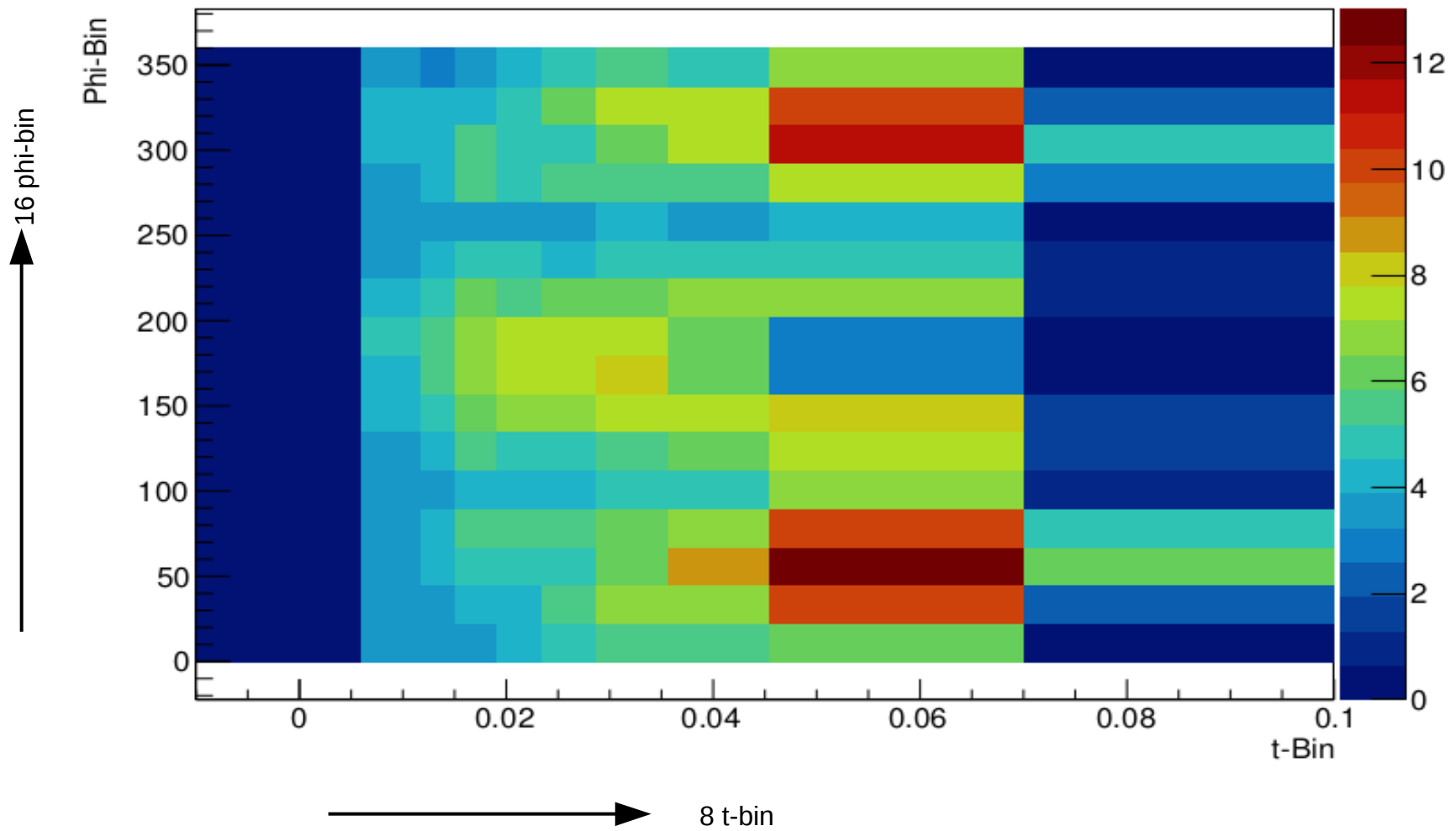
High epsilon

MandelT



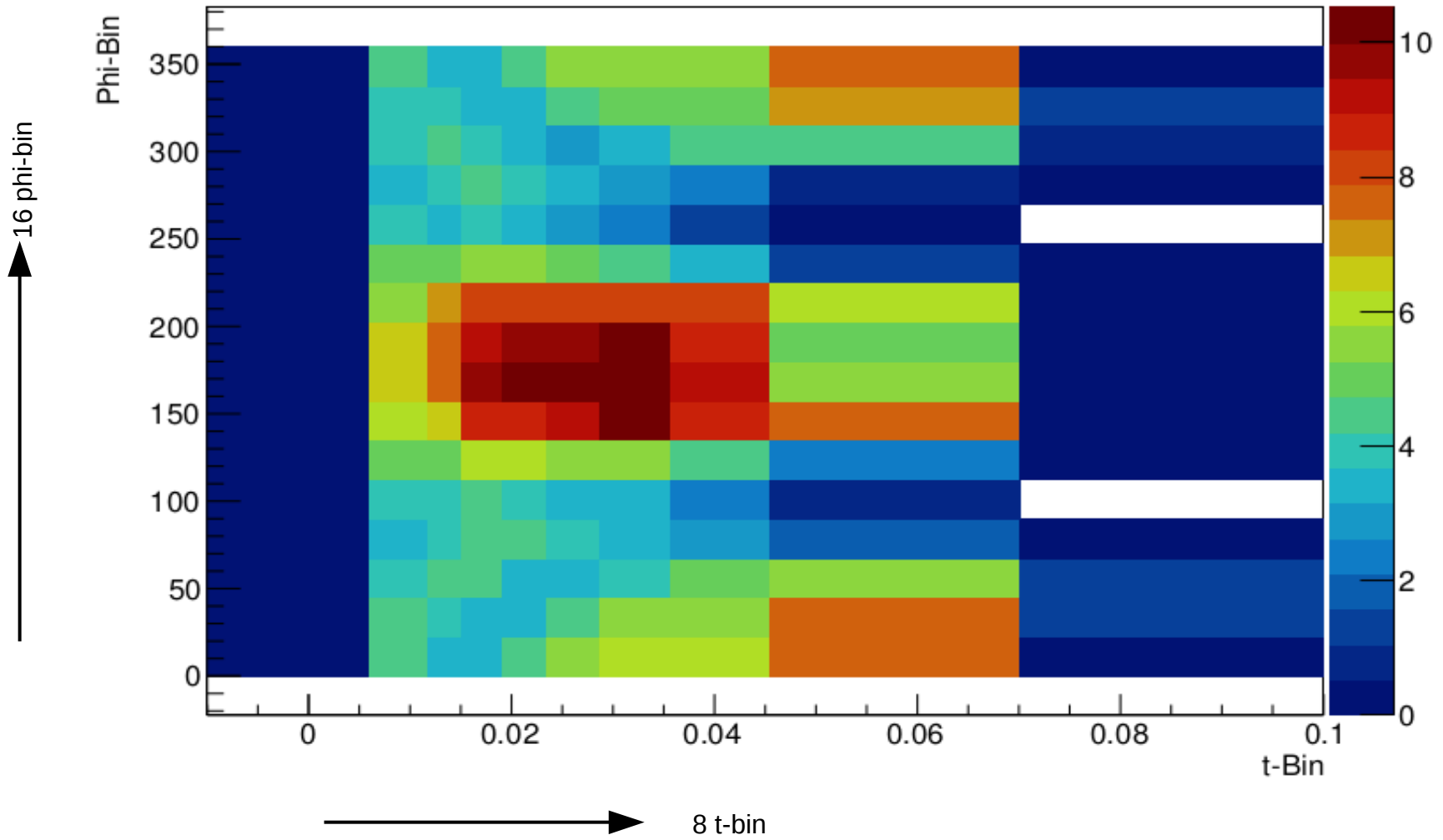
Yield calculation in each bin

Total Yield for High epsilon



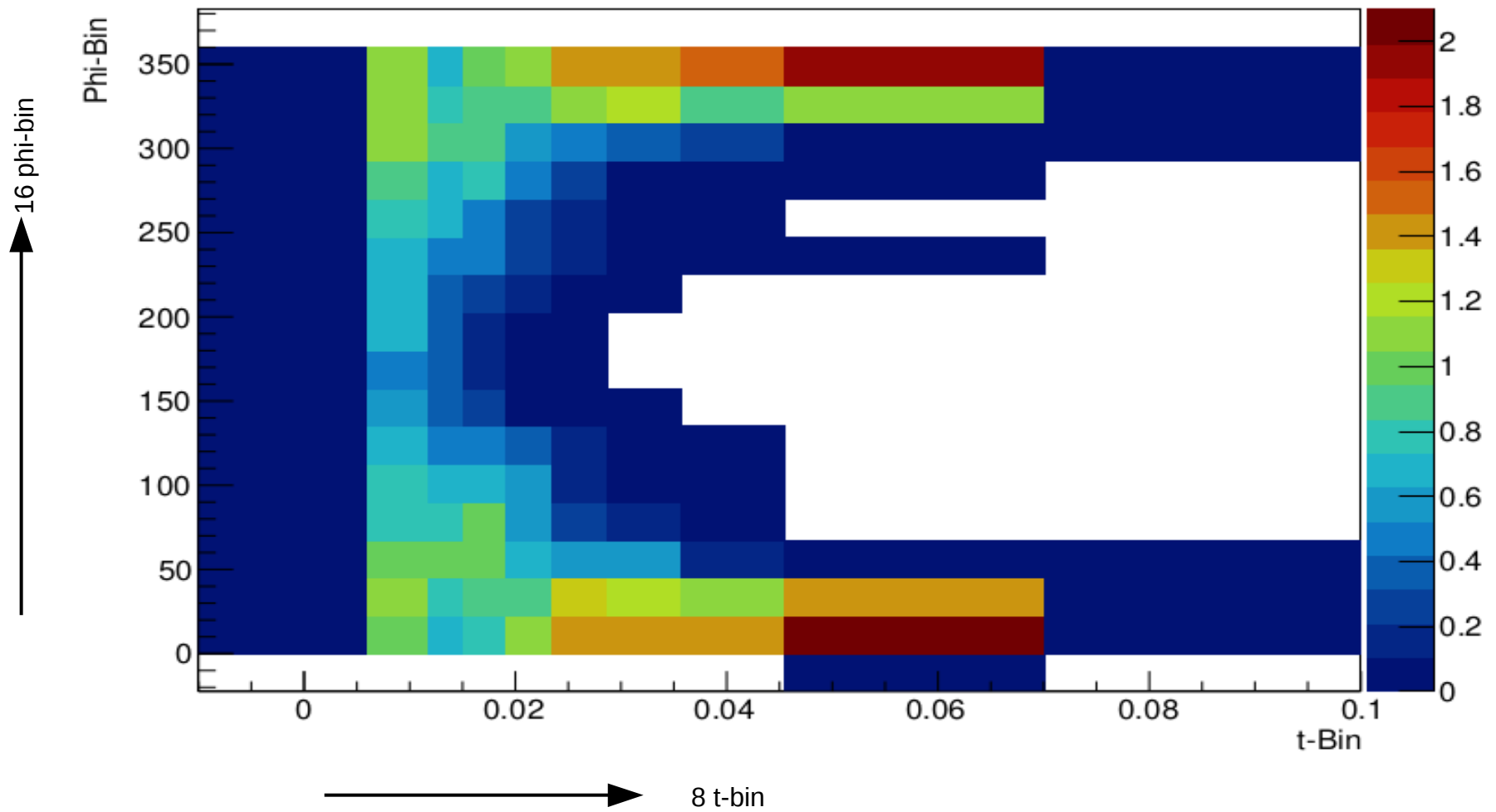
Yield calculation in each bin

Total Yield for mid epsilon



Yield calculation in each bin

Total Yield for low epsilon



- Working to complete the input files for the **average_kinematics.f** script. I need to calculate the mean and its error for the variables **Q²**, **W** and maybe **P_theta** for each setting separately in each t-bin.
- Working to calculate the SIMC yield in each bin to make the yield input files for the **average_ratios.f** script.
- **calc_xsect.f** will be used to get an unseparated cross-section in each bin once the above two are completed.

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

$t_{\text{coin}} \geq -1.0 \ \&\& \ t_{\text{coin}} \leq 1.0$

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

$mm \geq 0.92 \ \&\& \ mm \leq 0.98$ (updated, earlier it was 0.96)

Random selection (6 peaks)

$(t_{\text{coin}} \geq -15.0 \ \&\& \ t_{\text{coin}} \leq -9.0) \ || \ (t_{\text{coin}} \geq 7.0 \ \&\& \ t_{\text{coin}} \leq 13.0)$