



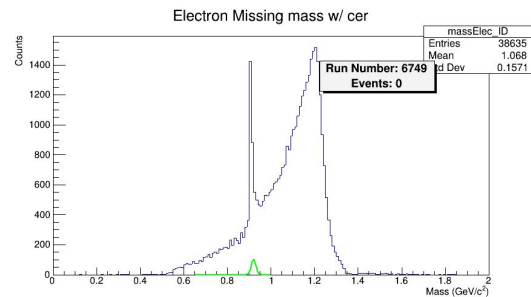
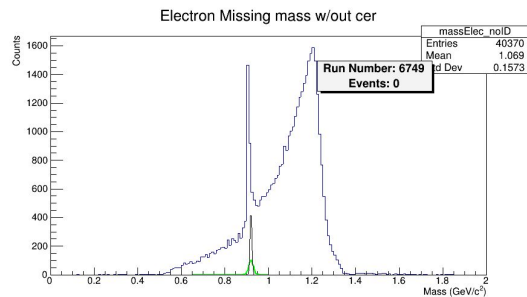
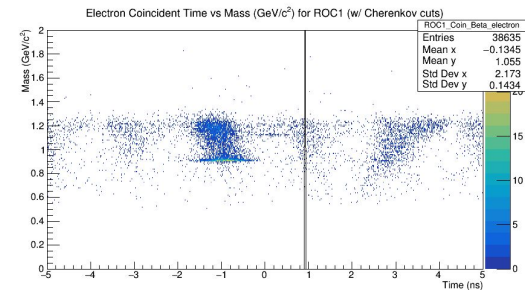
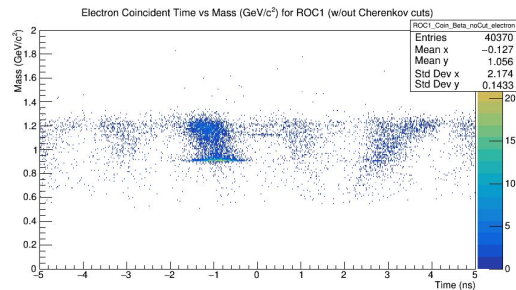
Kaon LT Status Update

January 8th, 2020

Richard Trotta

PID efficiencies

- Finding efficiencies from 1D mass plots by taking the ratio of the peaks.
- Code working for
 - HMS: cer, cal
 - SHMs: cer, cal, aero
- Still need to adjust the fits, but the rest of the code is working as expected



HMS cer example



```
if (TMath::Abs(H_gtr_dp[0]) > 10.0) return kTRUE;
if (P_gtr_dp[0] > 20.0 || P_gtr_dp[0] < -10.0) return kTRUE;

if (P_cal_etotnorm[0] > 0.6) return kTRUE;
```

W/out cer cuts

```
if(H_cal_etotnorm[0] > 1.1){
  h2ROC1_Coin_Beta_noID_electron->Fill((CTime_eKCoinTime_ROC1[0] - 48.5),sqrt(pow(emiss[0],2)-pow(pmiss[0],2)));
  h1massElec_noID->Fill(sqrt(pow(emiss[0],2)-pow(pmiss[0],2)));
}
```

W/ cer cuts

```
if(H_cal_etotnorm[0] > 1.1){
  if(H_cer_npeSum[0] > 1.5){
    h2ROC1_Coin_Beta_electron->Fill((CTime_eKCoinTime_ROC1[0] - 48.5),sqrt(pow(emiss[0],2)-pow(pmiss[0],2)));
    h1massElec_ID->Fill(sqrt(pow(emiss[0],2)-pow(pmiss[0],2)));
  }
}
```

Upcoming Events

- Draft for Hall C meeting (January 28 & 29)
 - Timing plots, Calibration plots, PID efficiencies, etc.
- Plan an in person meeting time during last week of January
 - I will be there from January Monday 27th to Friday 31st
- APS meeting abstracts (**DUE January 10th!!**)
 - Who's talking about what?
 - If necessary I can cover EIC structure functions to avoid overlap
 - APS meeting April 18-21 in Washington, DC
- Any other important dates?