

Figure 1: Progress of  $P_{\text{Sum}}$  Max cut.

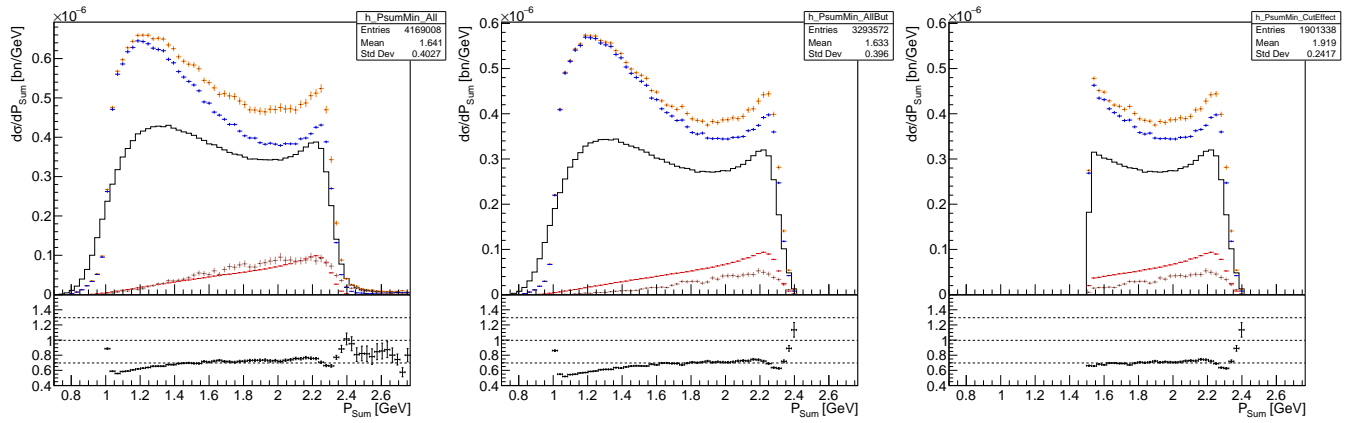


Figure 2: Progress of  $P_{\text{Sum}}$  Min cut.

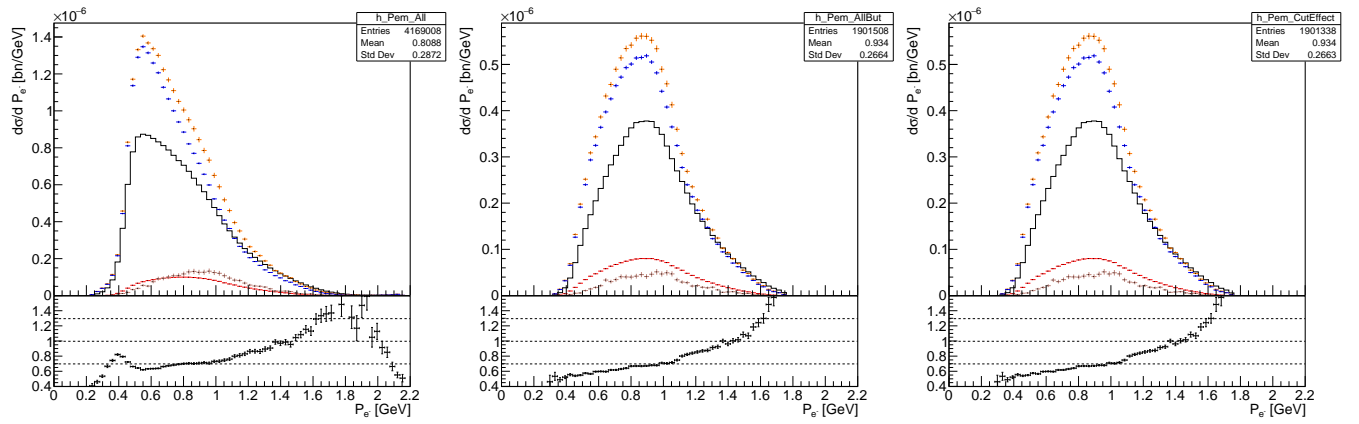


Figure 3: Progress of  $P_{e^-}$  cut.

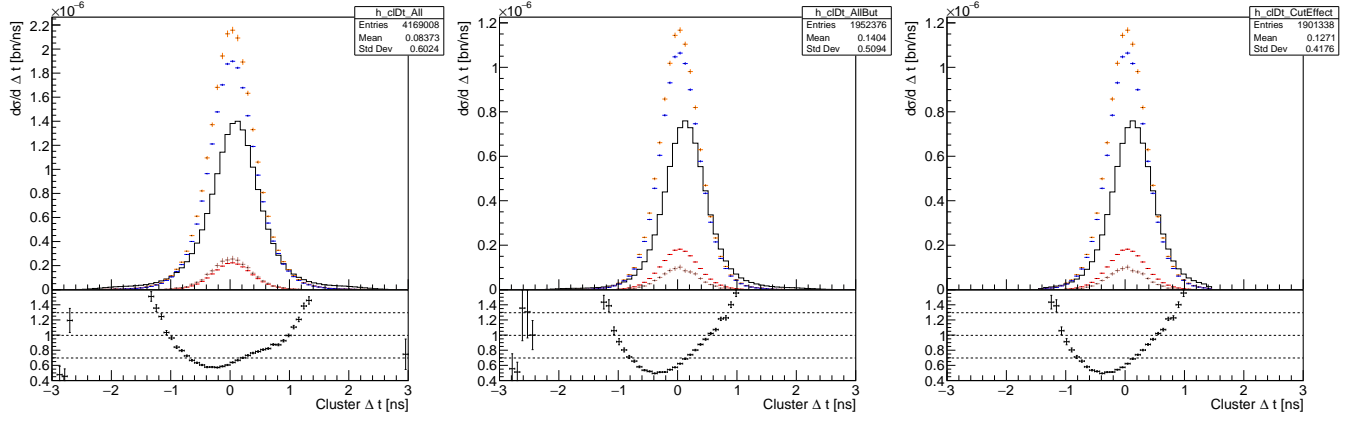


Figure 4: Progress of Cluster time difference cut.

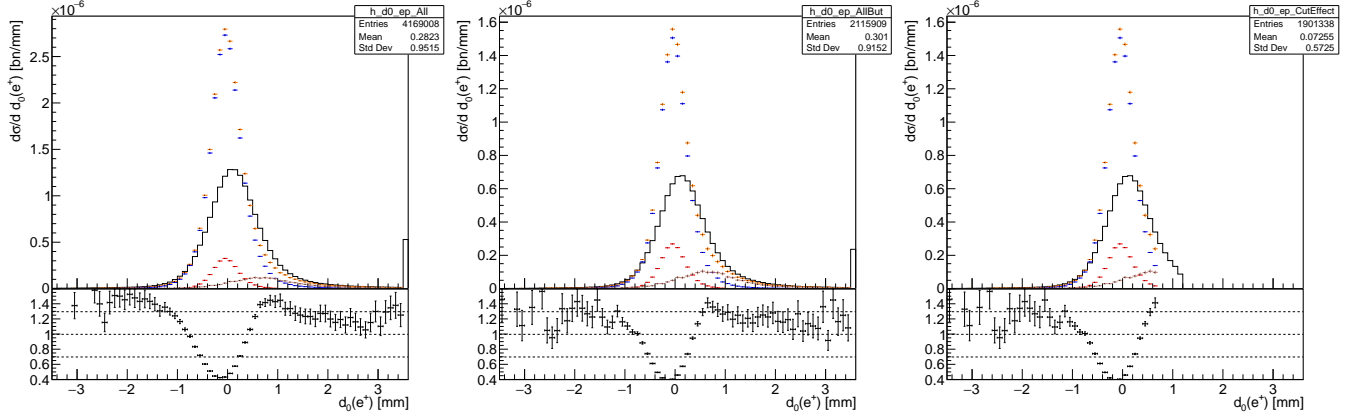


Figure 5: Progress of positron  $d_0$  cut.

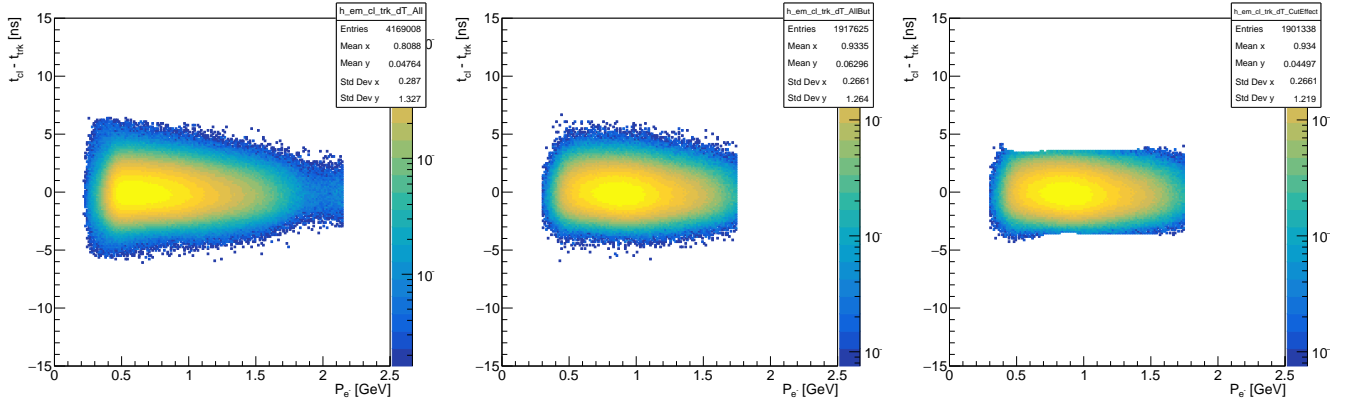


Figure 6: Electrons Data: Cluster track time difference as a function of Momentum.

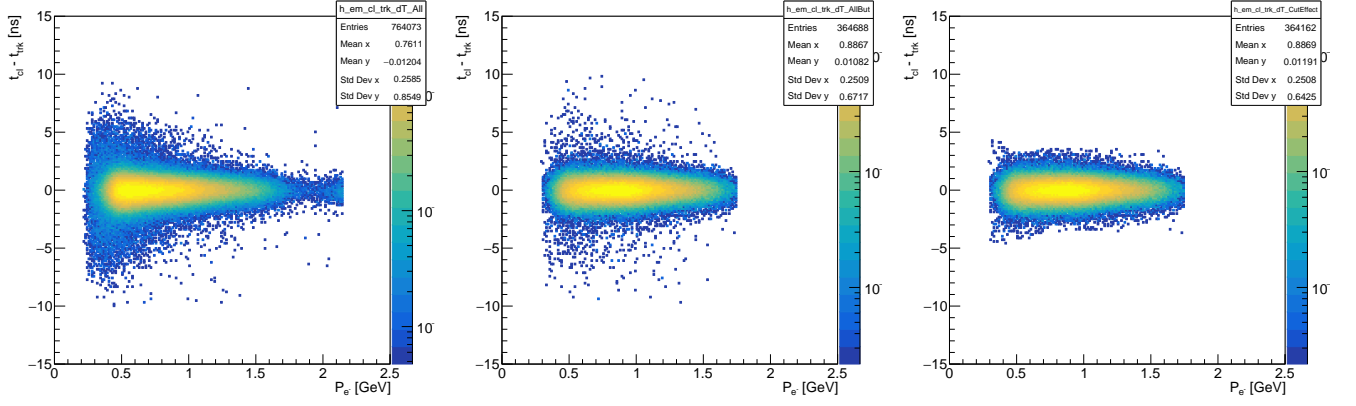


Figure 7: Electrons Tridents: Cluster track time difference as a function of Momentum.

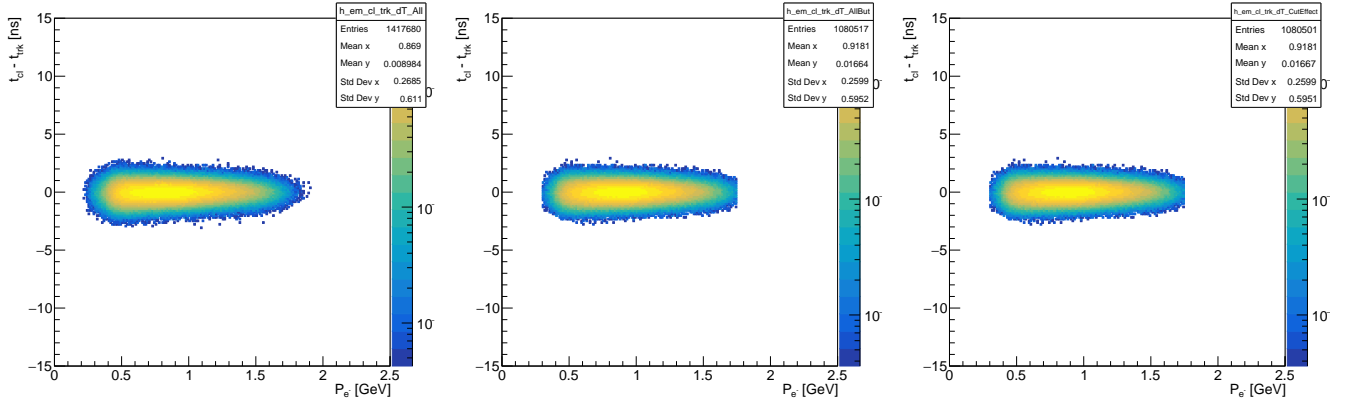


Figure 8: Electrons Rad Tridents: Cluster track time difference as a function of Momentum.

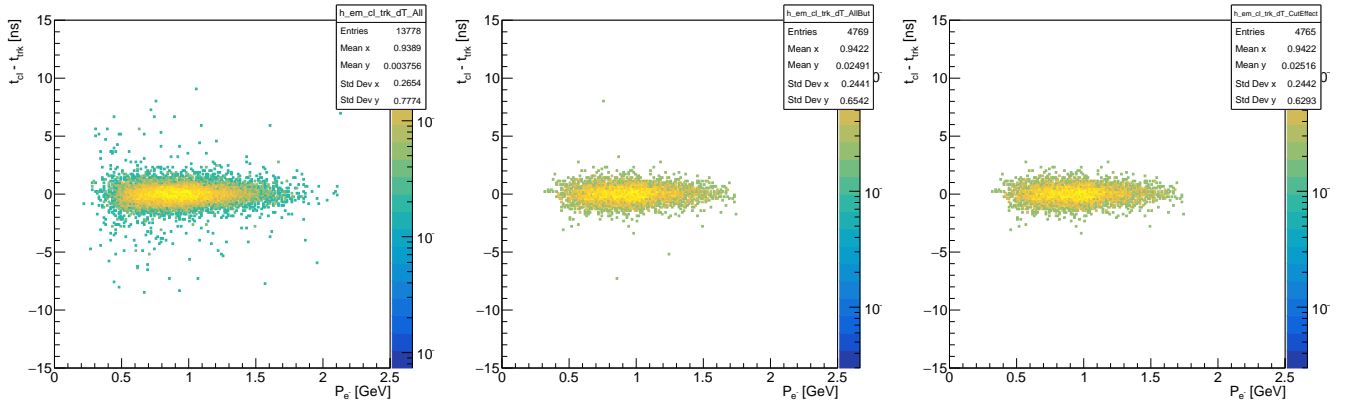


Figure 9: Electrons WABs: Cluster track time difference as a function of Momentum.

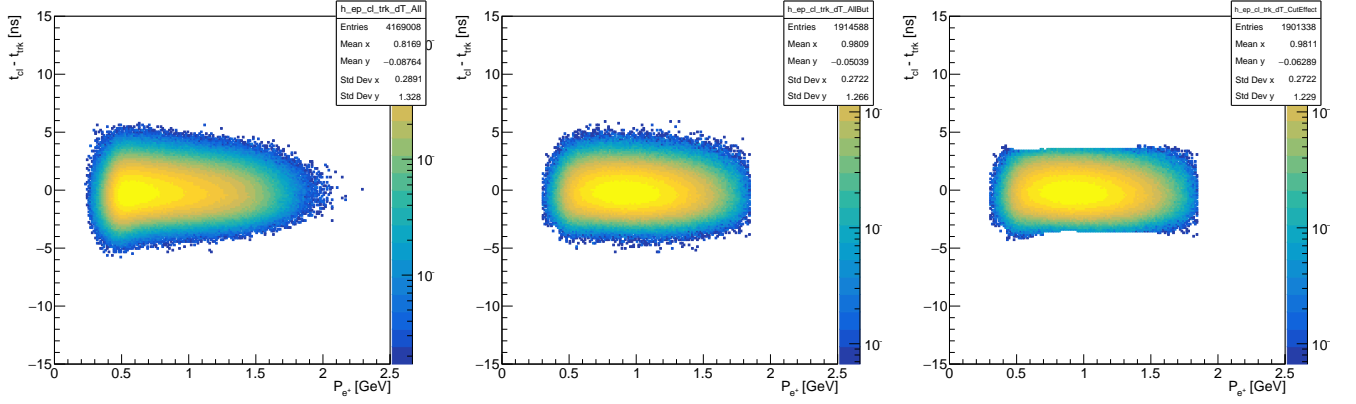


Figure 10: Positrons Data: Cluster track time difference as a function of Momentum.

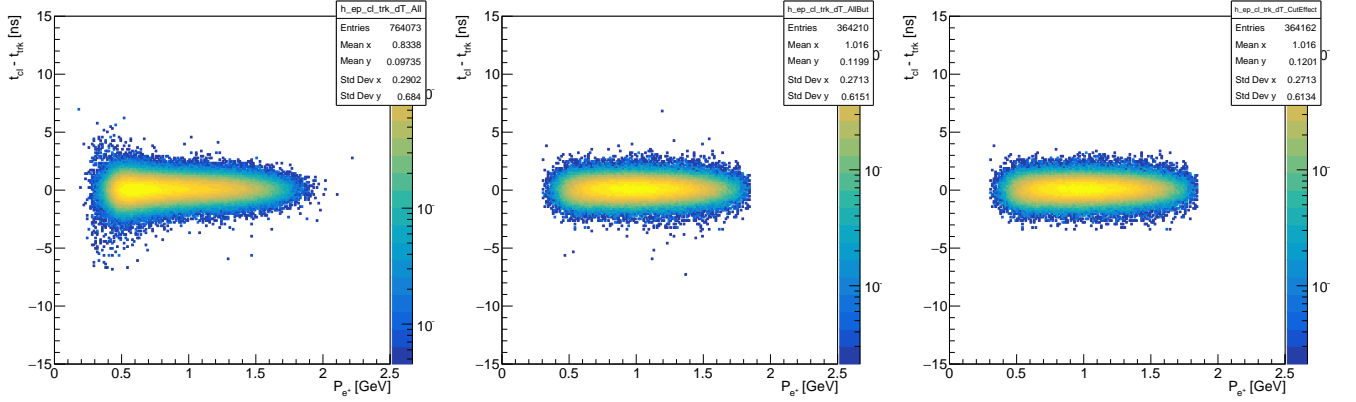


Figure 11: Positrons Tridents: Cluster track time difference as a function of Momentum.

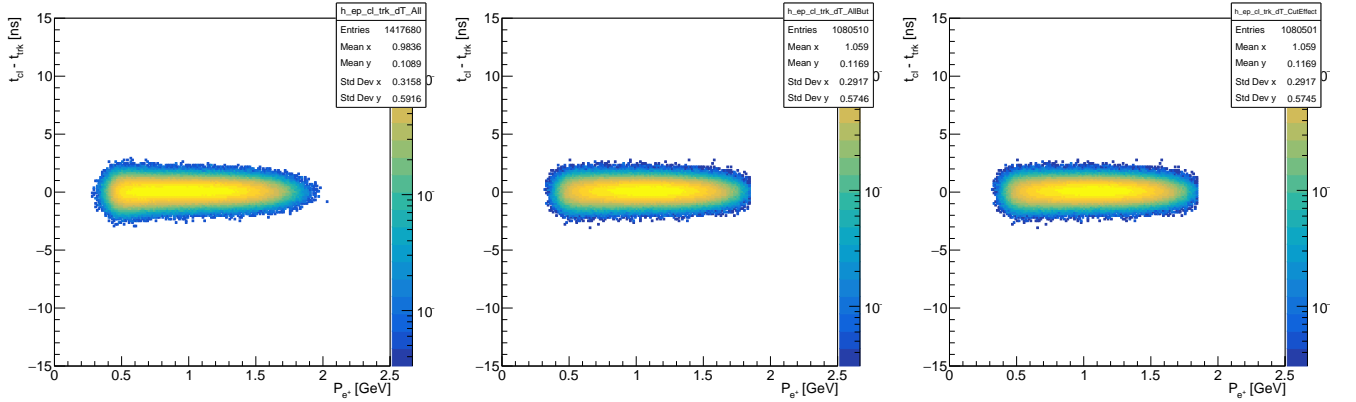


Figure 12: Positrons Rad Tridents: Cluster track time difference as a function of Momentum.

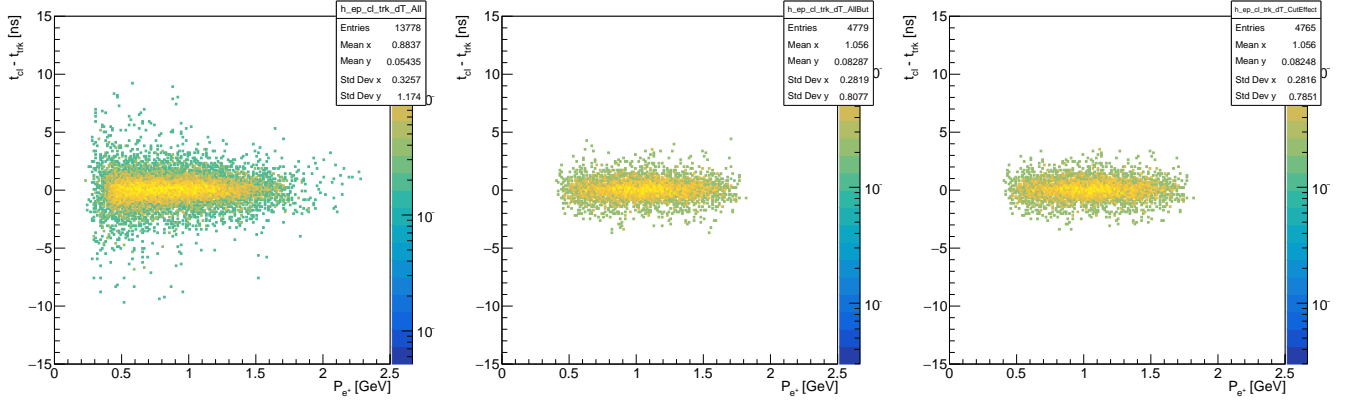


Figure 13: Positrons WABs: Cluster track time difference as a function of Momentum.

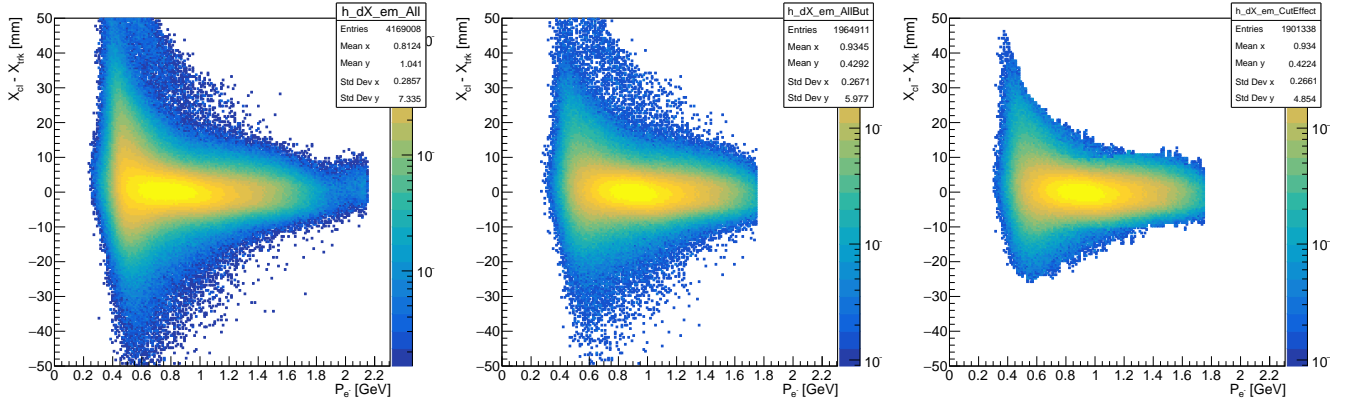


Figure 14: Electrons Data: Cluster track X coordinate difference as a function of momentum.

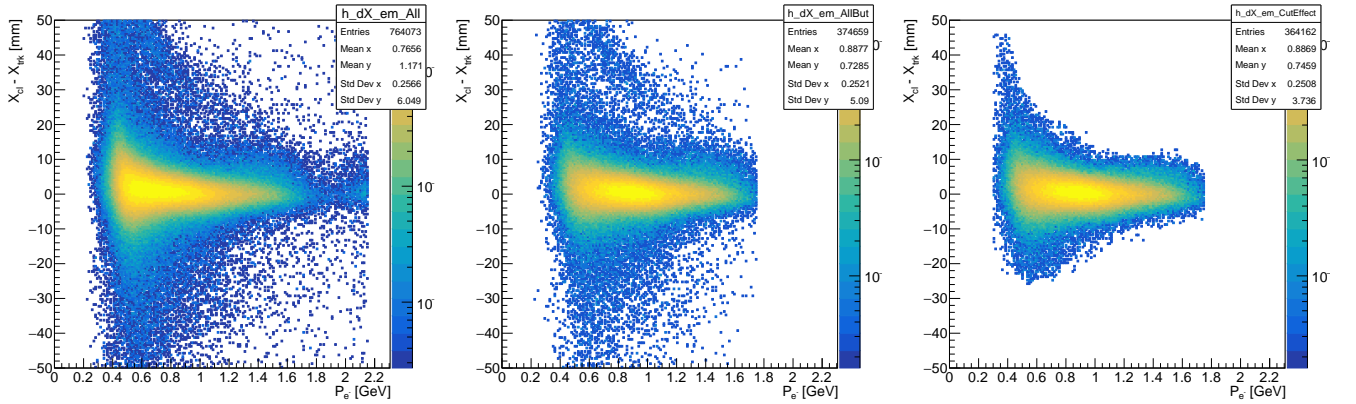


Figure 15: Electrons Tridents: Cluster track X coordinate difference as a function of momentum.

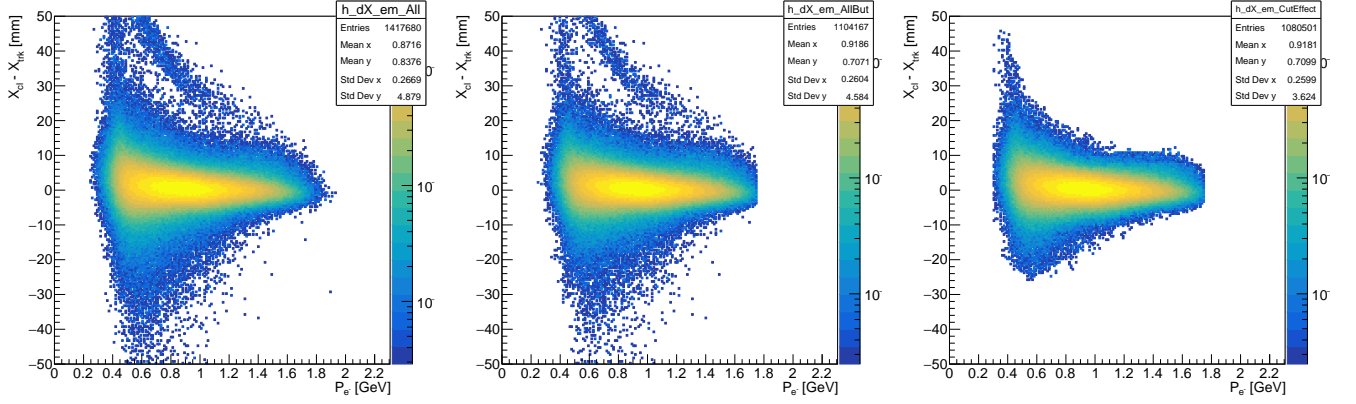


Figure 16: Electrons Rad Tridents: Cluster track X coordinate difference as a function of momentum.

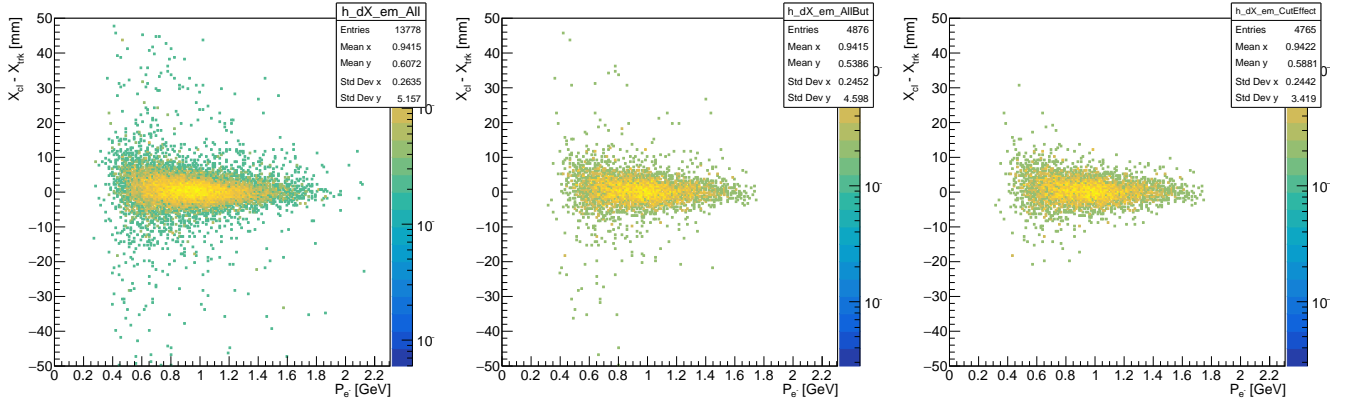


Figure 17: Positrons Rad Tridents: Cluster track X coordinate difference as a function of momentum.

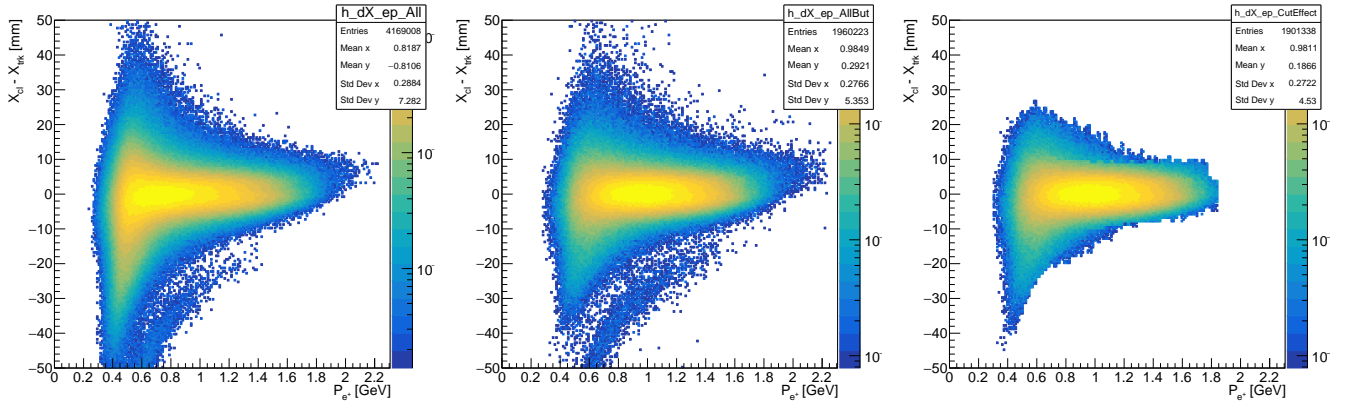


Figure 18: Positrons Data: Cluster track X coordinate difference as a function of momentum.

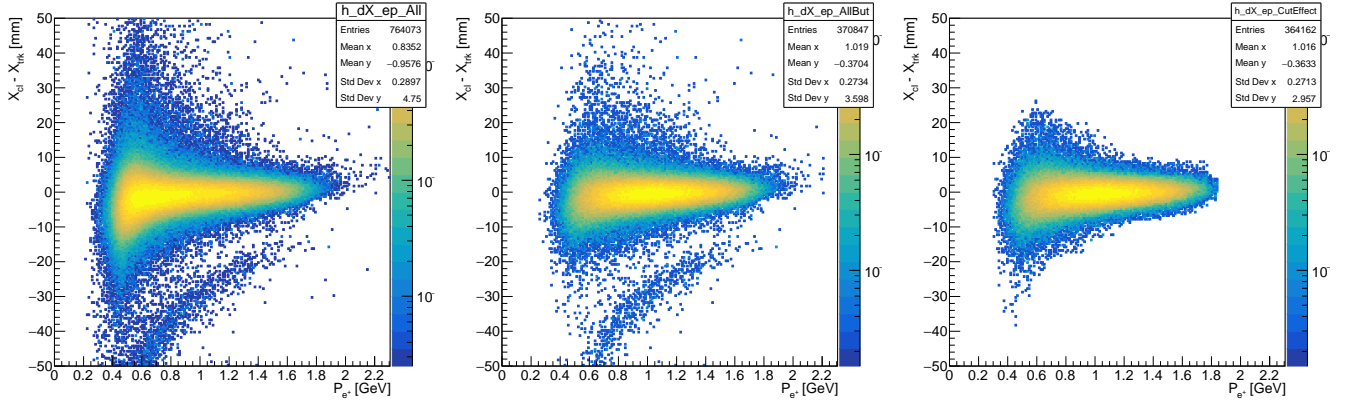


Figure 19: Positrons Tridents: Cluster track X coordinate difference as a function of momentum.

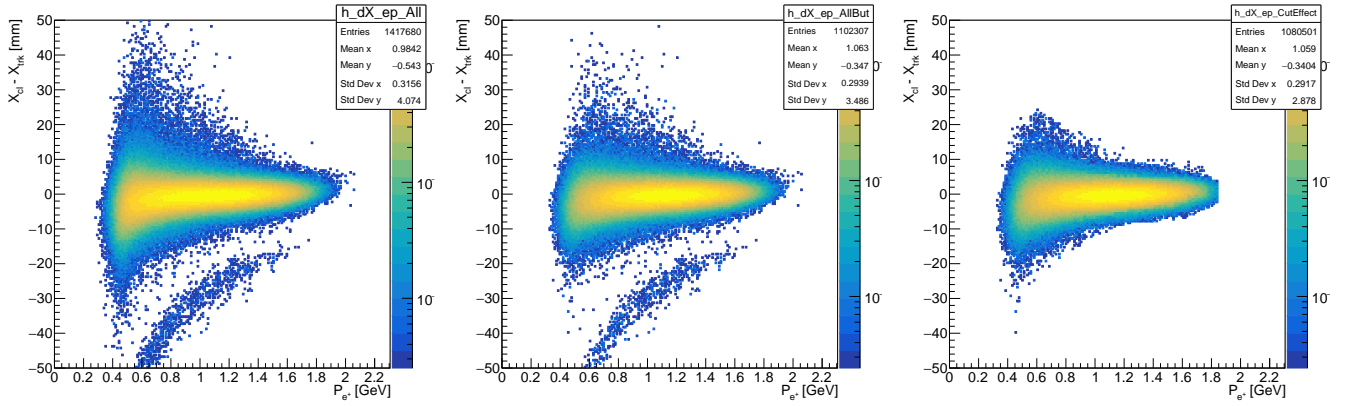


Figure 20: Positrons Rad Tridents: Cluster track X coordinate difference as a function of momentum.

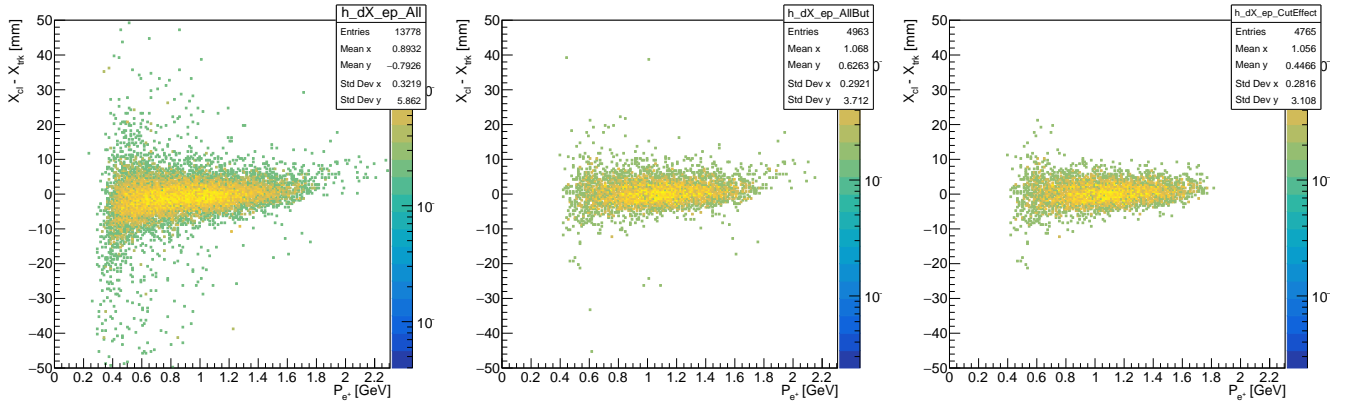


Figure 21: Positrons Rad Tridents: Cluster track X coordinate difference as a function of momentum.



# 1 PSum comparison for different mass bins

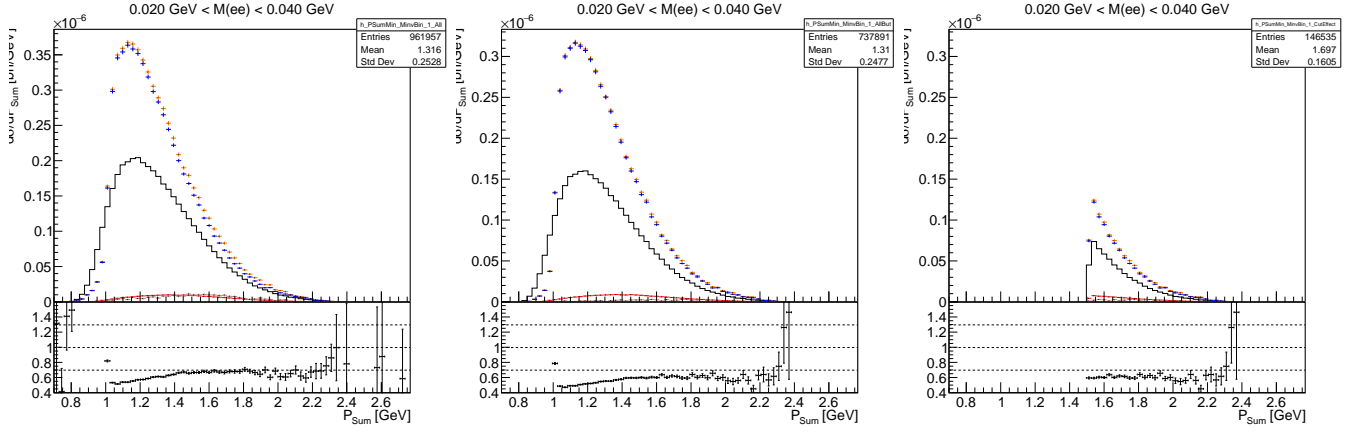


Figure 22: Progress of  $P_{\text{Sum}}$  Min cut, for the  $20 \text{ MeV} < M(ee) < 40 \text{ MeV}$

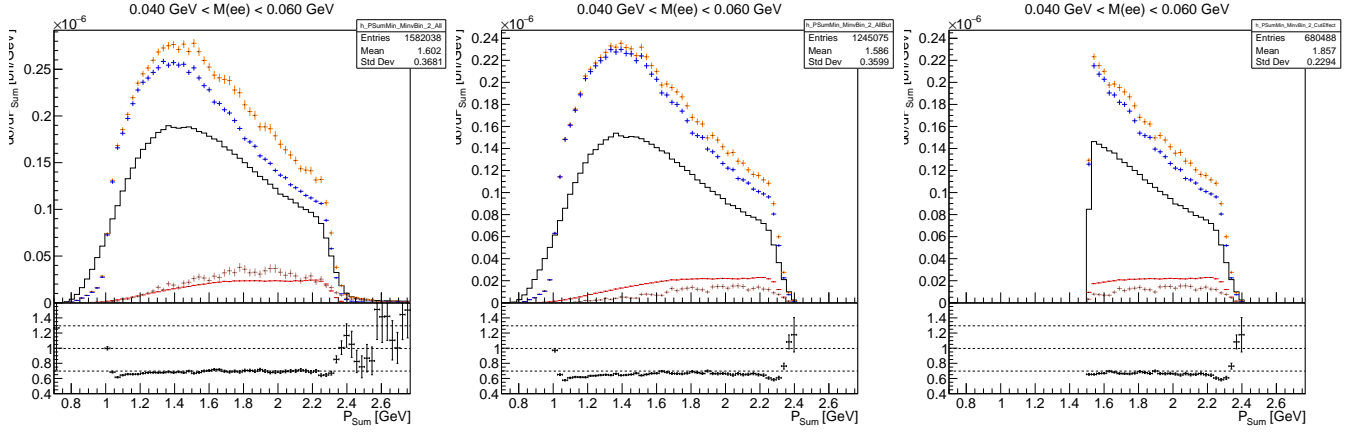


Figure 23: Progress of  $P_{\text{Sum}}$  Min cut, for the  $40 \text{ MeV} < M(ee) < 60 \text{ MeV}$



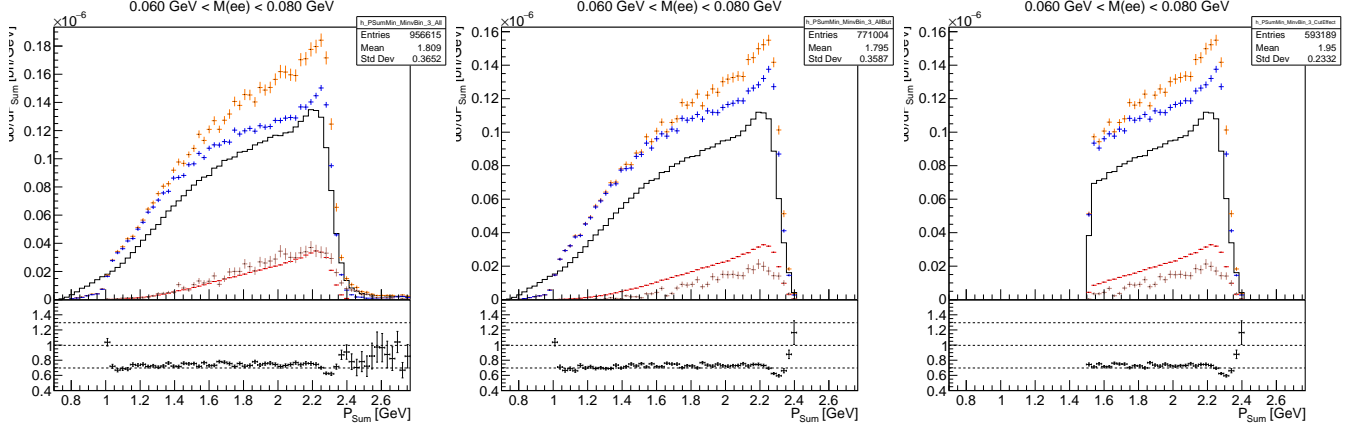


Figure 24: Progress of  $P_{\text{Sum}}$  Min cut, for the  $60 \text{ MeV} < M(ee) < 80 \text{ MeV}$

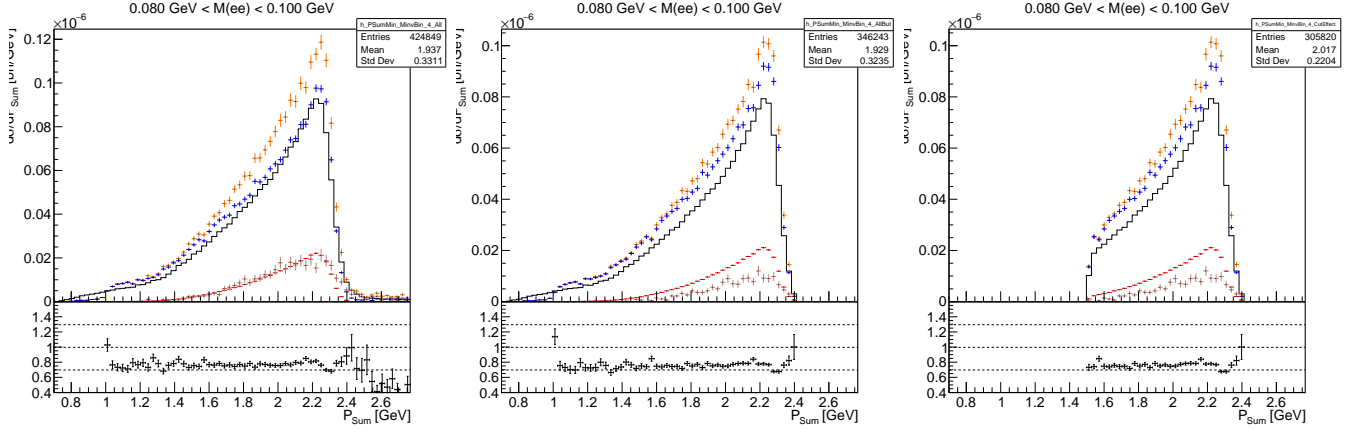


Figure 25: Progress of  $P_{\text{Sum}}$  Min cut, for the  $80 \text{ MeV} < M(ee) < 100 \text{ MeV}$

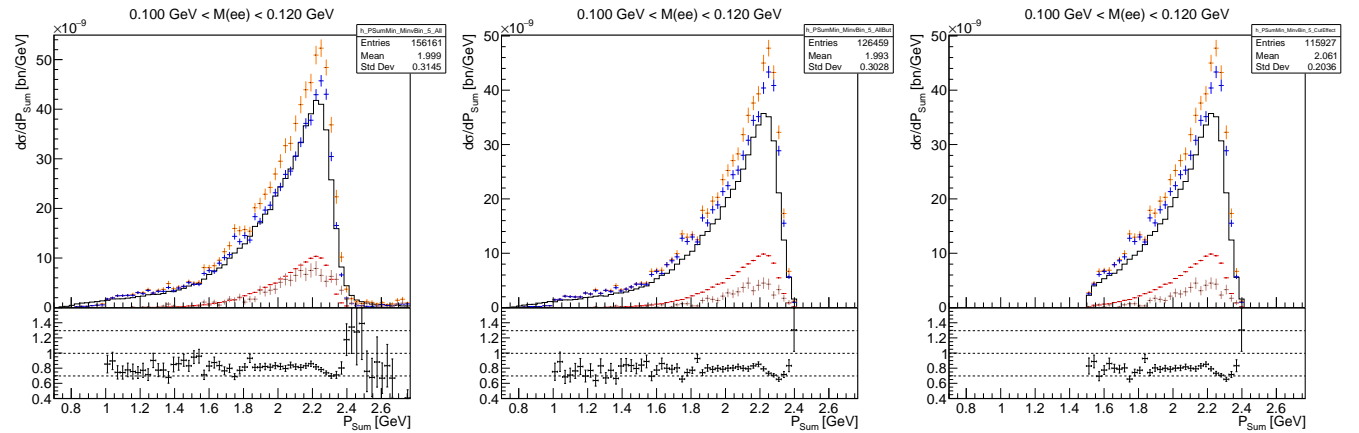


Figure 26: Progress of  $P_{\text{Sum}}$  Min cut, for the  $100 \text{ MeV} < M(ee) < 120 \text{ MeV}$

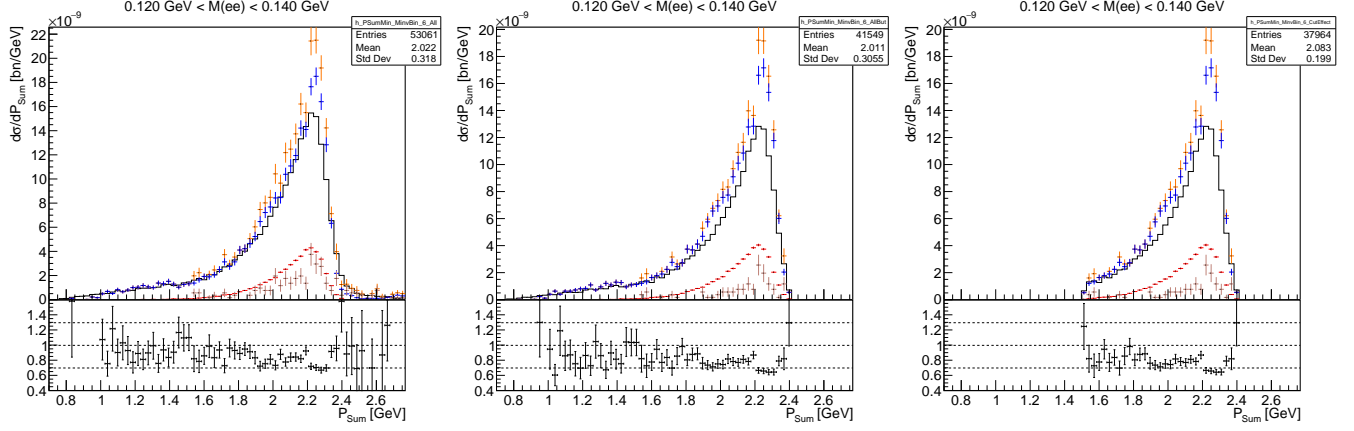


Figure 27: Progress of  $P_{\text{Sum}}$  Min cut, for the  $120 \text{ MeV} < M(ee) < 140 \text{ MeV}$

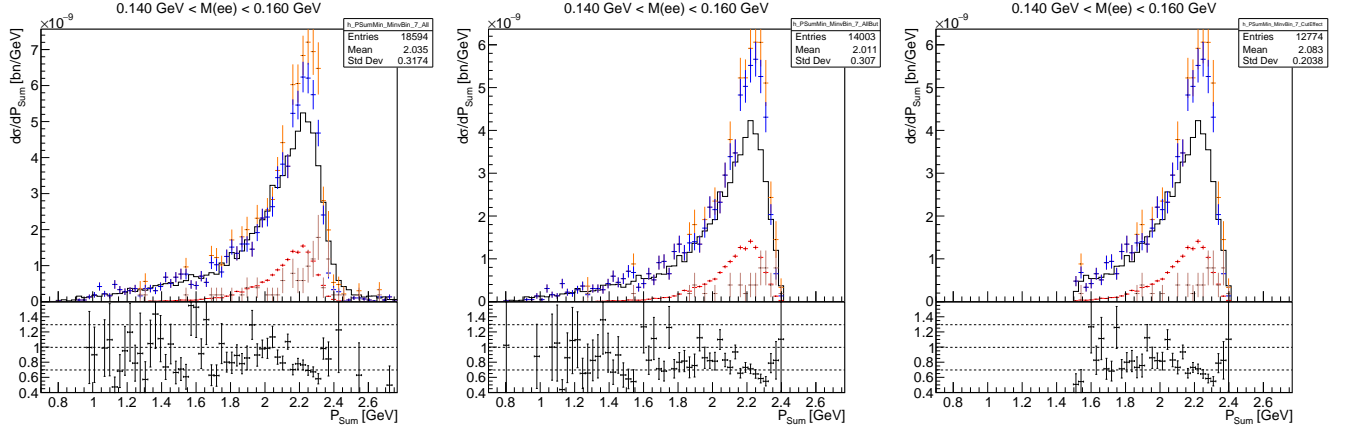


Figure 28: Progress of  $P_{\text{Sum}}$  Min cut, for the  $140 \text{ MeV} < M(ee) < 160 \text{ MeV}$

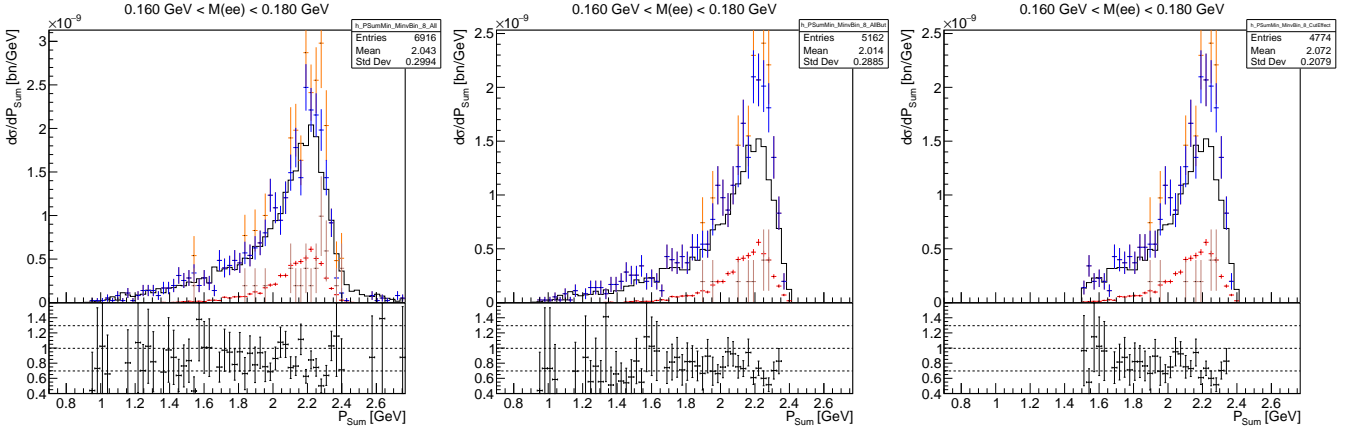


Figure 29: Progress of  $P_{\text{Sum}}$  Min cut, for the  $160 \text{ MeV} < M(ee) < 180 \text{ MeV}$

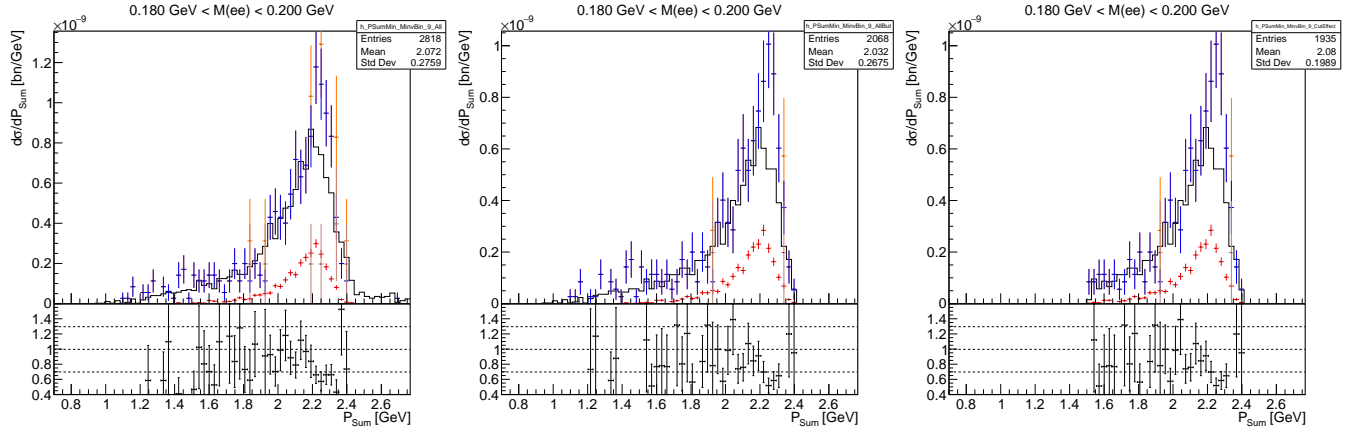


Figure 30: Progress of  $P_{\text{Sum}}$  Min cut, for the  $180 \text{ MeV} < M(ee) < 200 \text{ MeV}$

## 2 CutEfficiencies

CutDescription	Data	Tri-beam	Rad-beam	Wab-beam	Tri + Wab
PsumMax	0.996641	0.998864	0.998858	0.987156	0.997881
PsumMin	0.577292	0.538798	0.827853	0.904518	0.557535
clDt	0.973964	0.994342	0.997401	0.993122	0.994241
Pem	0.999911	0.999973	0.999969	1	0.999975
d0_ep	0.922845	0.964053	0.975223	0.523027	0.901822
em_cl_trk_dT	0.991507	0.998558	0.999985	0.999161	0.998608
ep_cl_trk_dT	0.993079	0.999868	0.999992	0.997071	0.999635
dX_em	0.971854	0.978341	0.983099	0.979244	0.978416
dX_ep	0.970966	0.982448	0.980633	0.960492	0.980585
PSumMin_MinvBin_0	0	0	0	-nan	0
PSumMin_MinvBin_1	0.198586	0.18593	0.406154	0.570248	0.191148
PSumMin_MinvBin_2	0.546544	0.536306	0.784803	0.870588	0.553026
PSumMin_MinvBin_3	0.769379	0.764507	0.916614	0.959608	0.779726
PSumMin_MinvBin_4	0.883288	0.882971	0.964754	0.977667	0.890987
PSumMin_MinvBin_5	0.916738	0.917299	0.97954	0.98227	0.922687
PSumMin_MinvBin_6	0.913738	0.922544	0.984273	1	0.928158
PSumMin_MinvBin_7	0.912298	0.917476	0.983379	0.967742	0.921494
PSumMin_MinvBin_8	0.924835	0.918172	0.987276	1	0.923257
PSumMin_MinvBin_9	0.935687	0.918421	0.993275	1	0.921291
PSumMin_MinvBin_10	0.963074	0.965116	1	1	0.966467
PSumMin_MinvBin_11	0.97546	1	0.989547	1	1

### 3 Rad Fraction

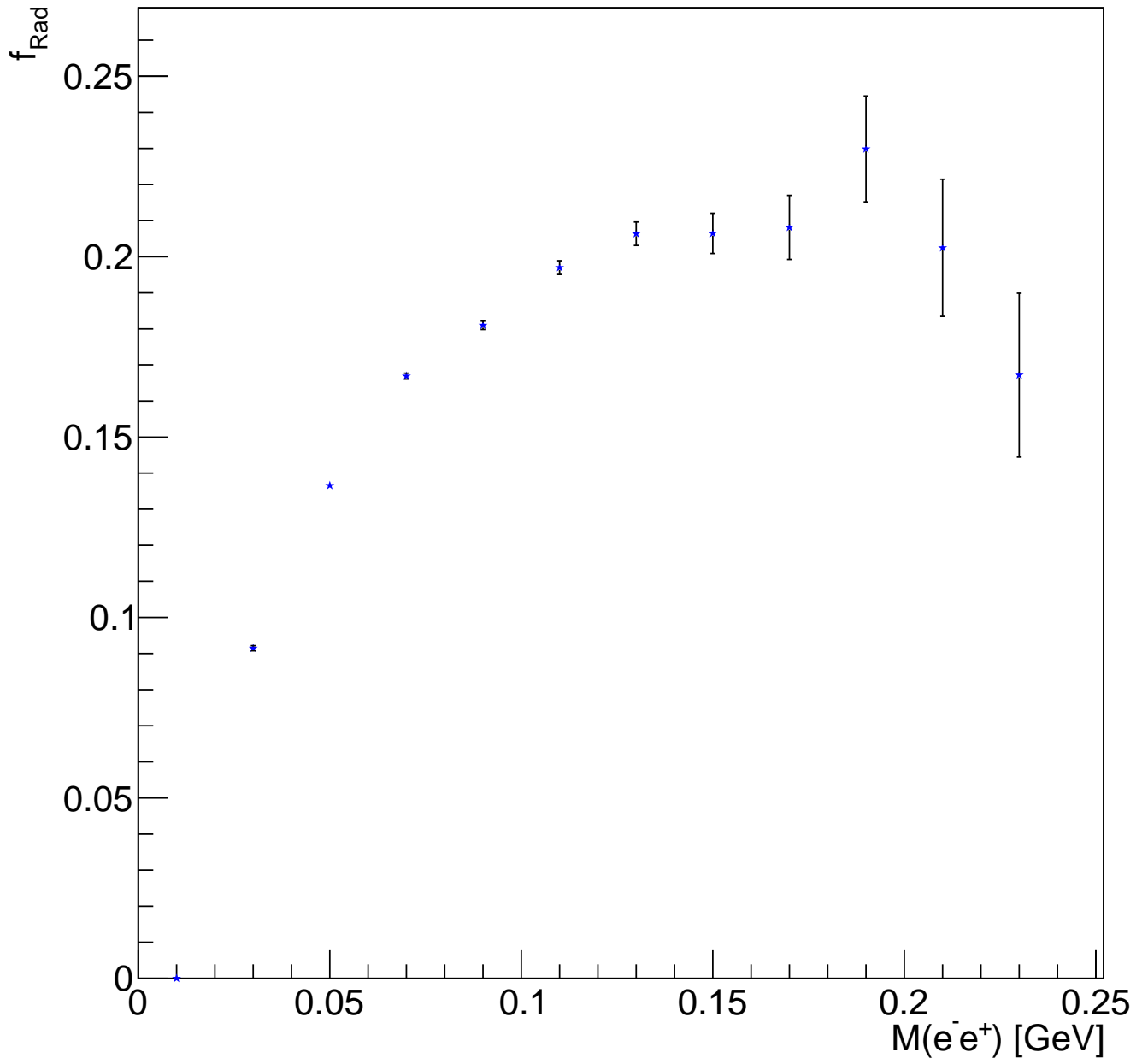


Figure 31: Radiative fraction as a function of mass.