

# **EXCLUSIVE $\pi$ PLUS RUNS**

## **HGCER EFFICIENCY WITH MISSING MASS CUT**

Setting 5-1 ,  $z = 0.9$ , +6.80 GeV/c

D2 Runs : 3923,3924,3925

H2 Runs : 3928,3929,3930

Setting 1-1 ,  $z = 0.9$ , + 5.05 GeV/c

D2 Runs : 3413,3414,3416

H2 Runs : 3420,3421,3423

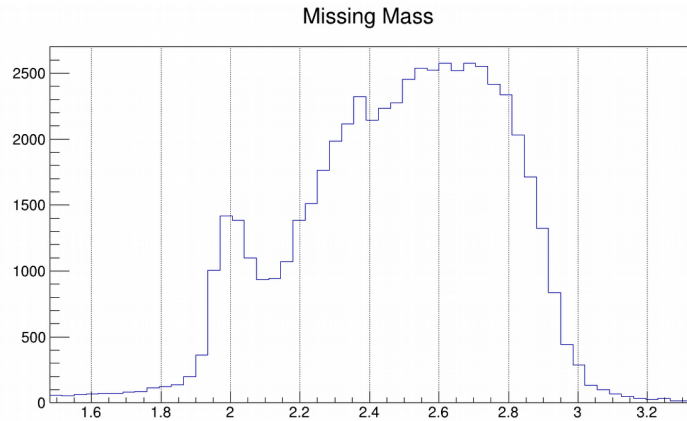
Setting 1-2 ,  $z = 0.9$ , +5.06 GeV/c

D2 Runs : 3424,3425,3426

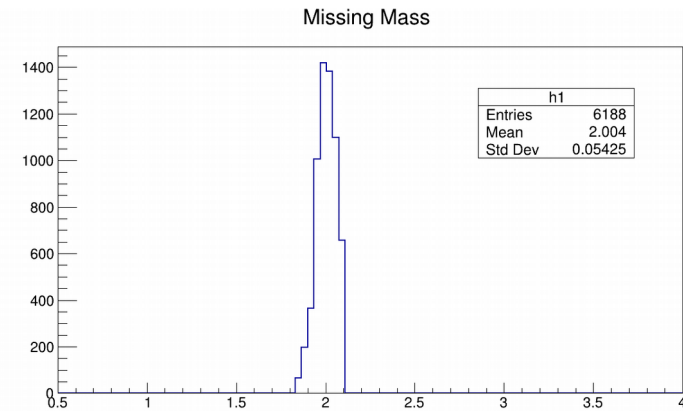
H2 Runs : 3430,3431,3432

## D2 Runs 3923, 3924, 3925 : Setting 5-1 Pi+ and 6.8 GeV/c, pt = 0

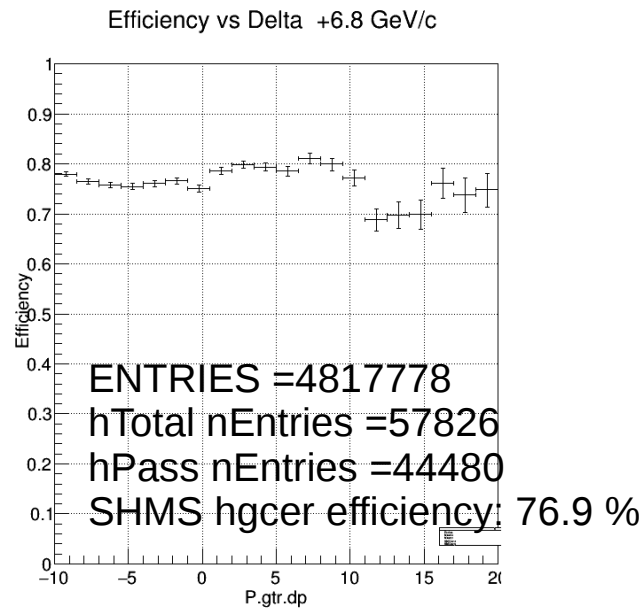
(pgtrbeta > 0.8 && pgtrbeta < 1.3 && pgtrdp < 20 && pgtrdp > -10 && paeronpesum > 5 && ctime-9.7 > -1 && ctime-9.7 < 1 && sqrt(misseng\*misseng-missmom\*missmom) > 1.85 && sqrt(misseng\*misseng-missmom\*missmom) < 2.1) [**&& phgcernoenum > 1.0**]



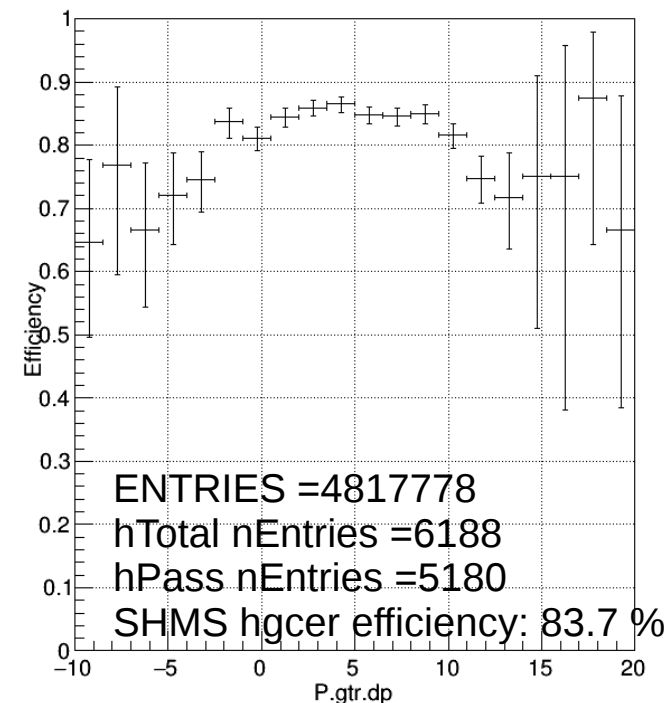
Missing Mass Distribution For D2 target



Efficiency vs Delta +6.8 GeV/c



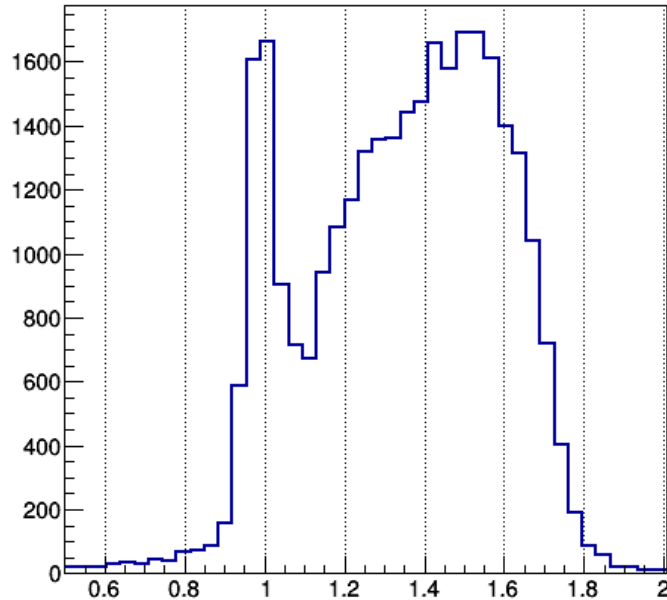
Efficiency without Missmass Cut



Efficiency with Missmass Cut

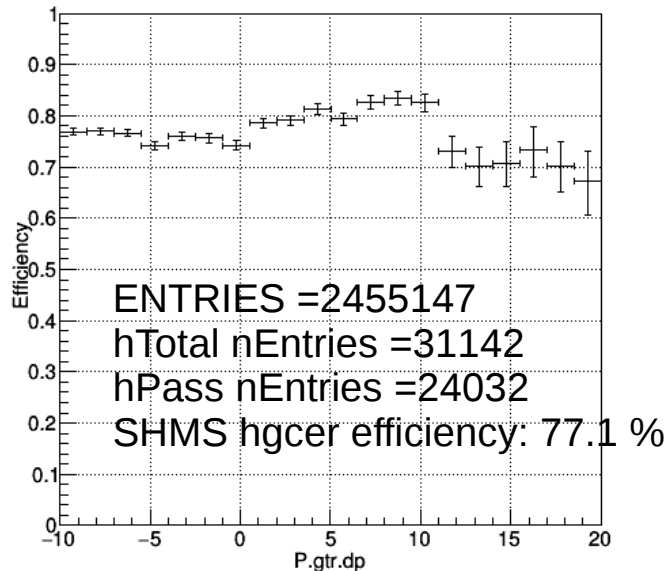
## H2 Runs 3928, 3929, 3930 : Setting 5-1 Pi+ and 6.8 GeV/c, pt = 0

Missing Mass



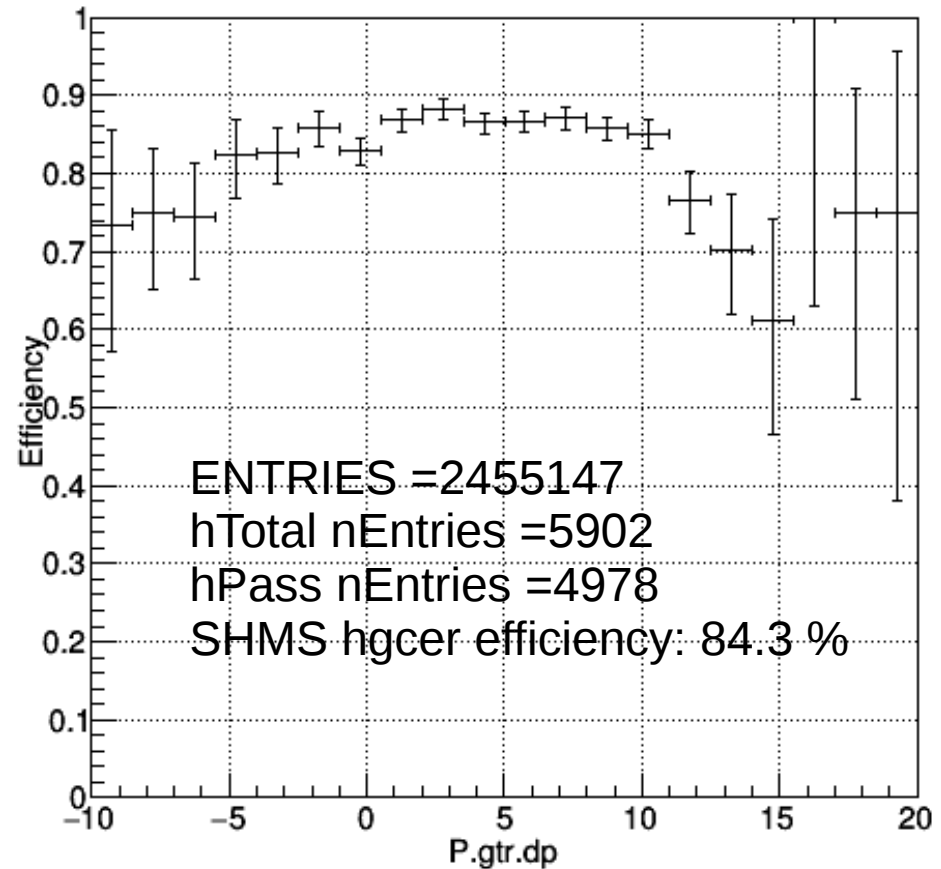
Missing Mass Distribution For H2 target

(pgtrbeta > 0.8 && pgtrbeta < 1.3 && pgtrdp < 20 && pgtrdp > -10 && paeronpesum > 5 && ctime-9.7 > -1 && ctime-9.7 < 1 && sqrt(misseng\*misseng-missmom\*missmom) > 0.8 && sqrt(misseng\*misseng-missmom\*missmom) < 1.1) **[&& phgcernoenum > 3.0]**



Efficiency without Missmass Cut

Efficiency vs Delta +6.8 GeV/c

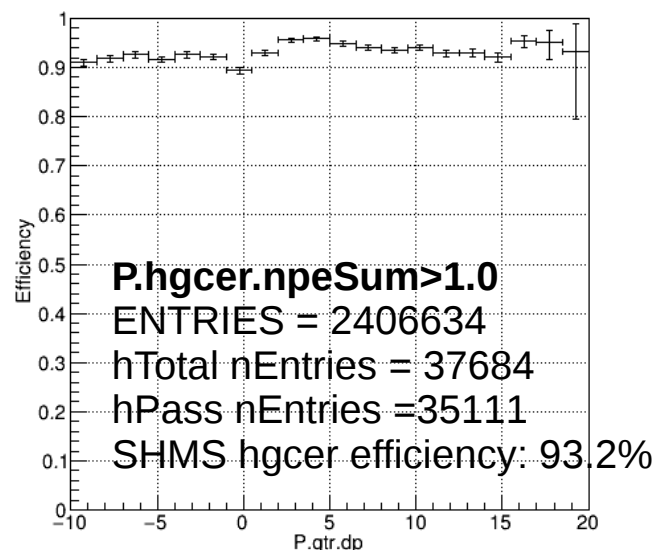
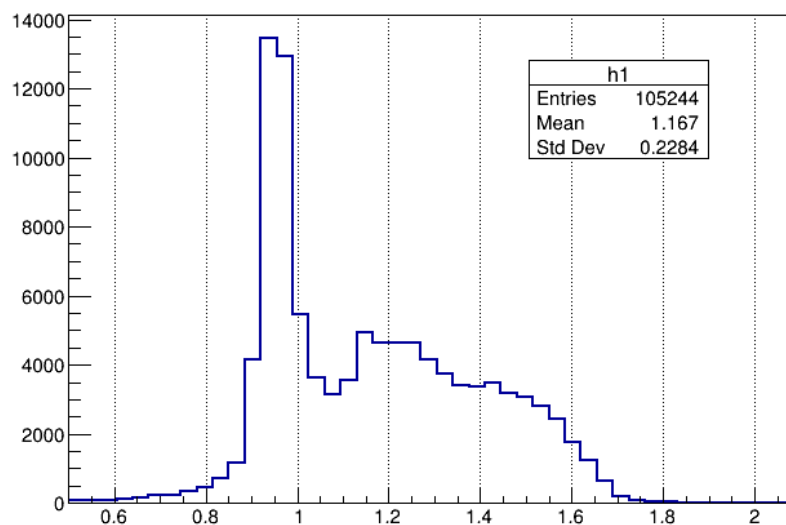


Efficiency with Missmass Cut

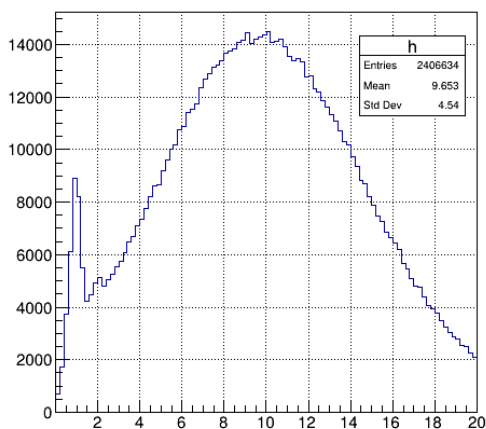
## H2 Runs 3420, 3421, 3423 : Setting 1-1 Pi+ and 5.05 GeV/c, pt = -0.06

(pgtrbeta > 0.8 && pgtrbeta < 1.3 && pgtrdp < 20 && pgtrdp > -10 &&  
**paeronpesum > 5** && ctime-10 > -1 && ctime-10 < 1 && sqrt(misseng\*misseng-  
missmom\*missmom) > 0.9 && sqrt(misseng\*misseng-missmom\*missmom)  
< 1.01) [**&& phgcernpesum > 3.0**]

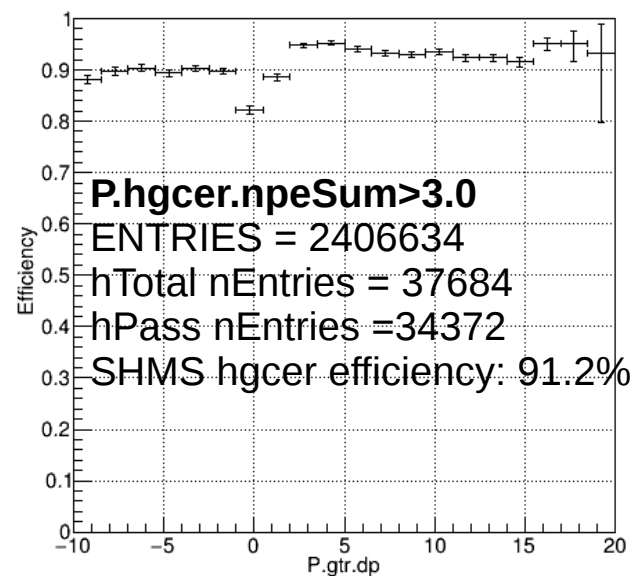
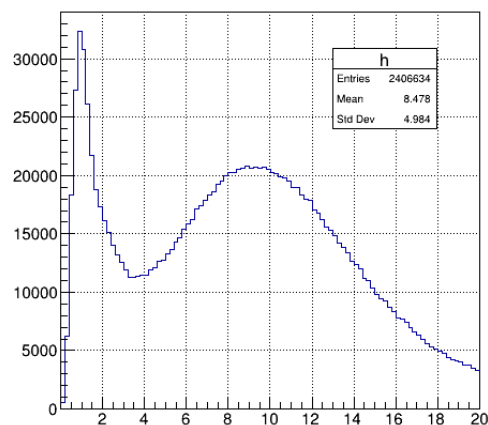
Missing Mass



P.hgcer.npeSum



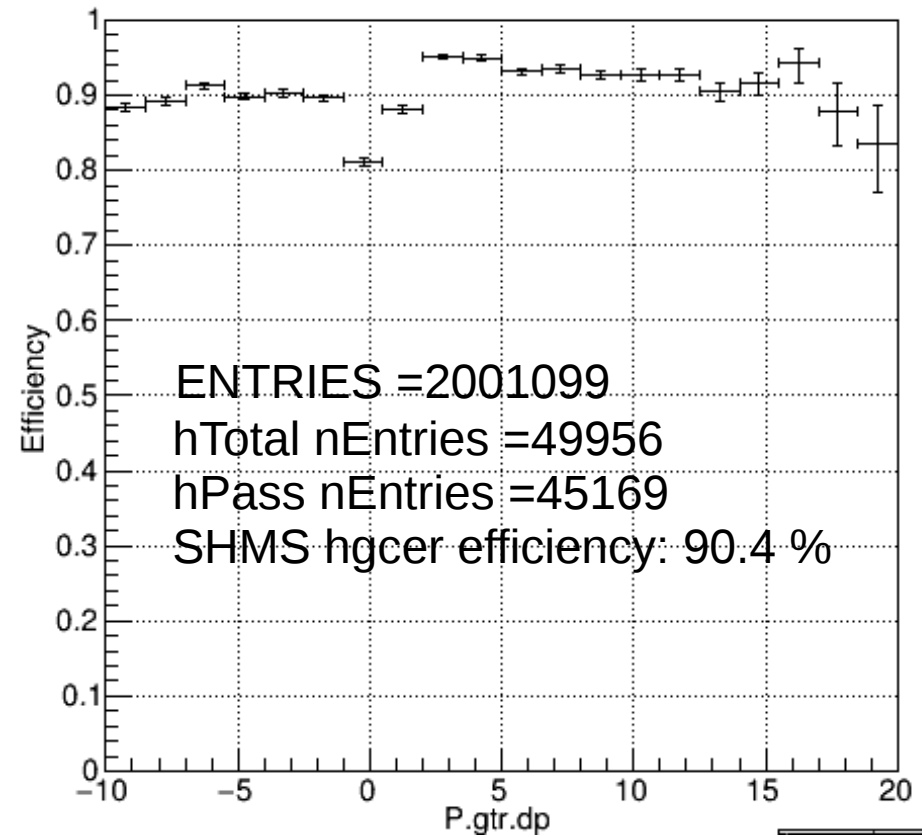
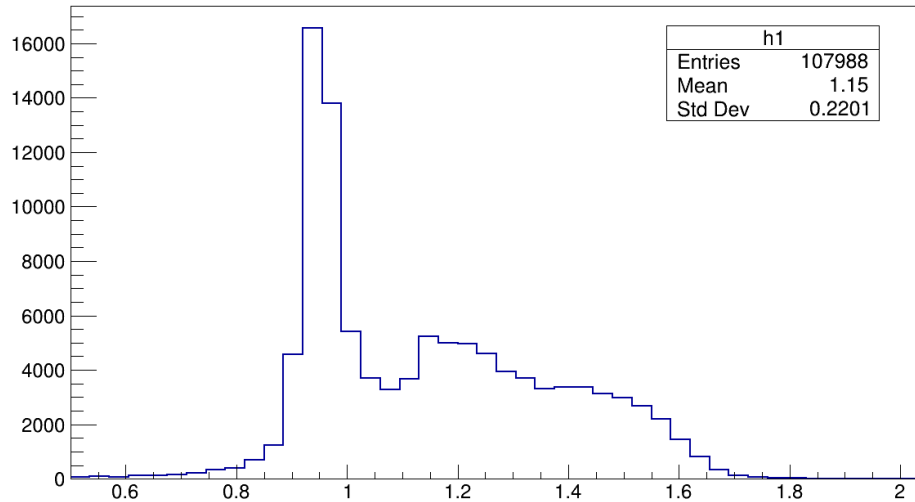
P.aero.npeSum



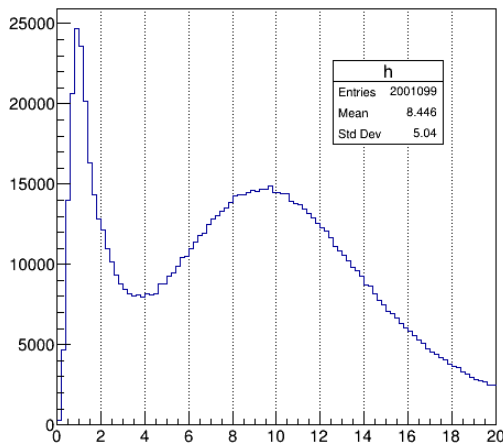
**H2 Runs 3424, 3425, 3426 : Setting 1-2 Pi+ and 5.05 GeV/c, pt = -0.06**

(pgtrbeta > 0.8 && pgtrbeta < 1.3 && pgtrdp < 20 && pgtrdp > -10 &&  
**paeronpesum > 5** && ctime-10 > -1 && ctime-10 < 1 && sqrt(misseng\*misseng-  
missmom\*missmom) > 0.8 && sqrt(misseng\*misseng-missmom\*missmom) < 1.1)  
**[&& phgcernpesum > 3.0]**

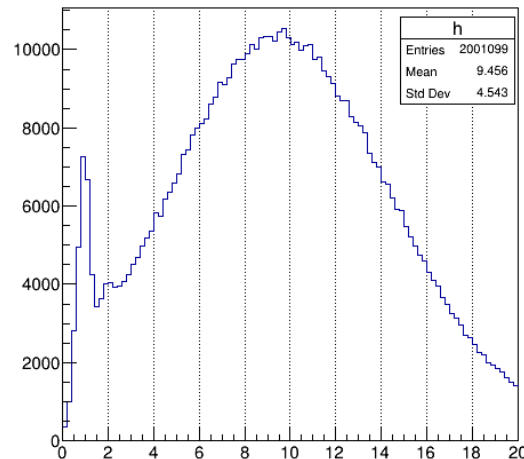
Missing Mass



P.aero.npeSum



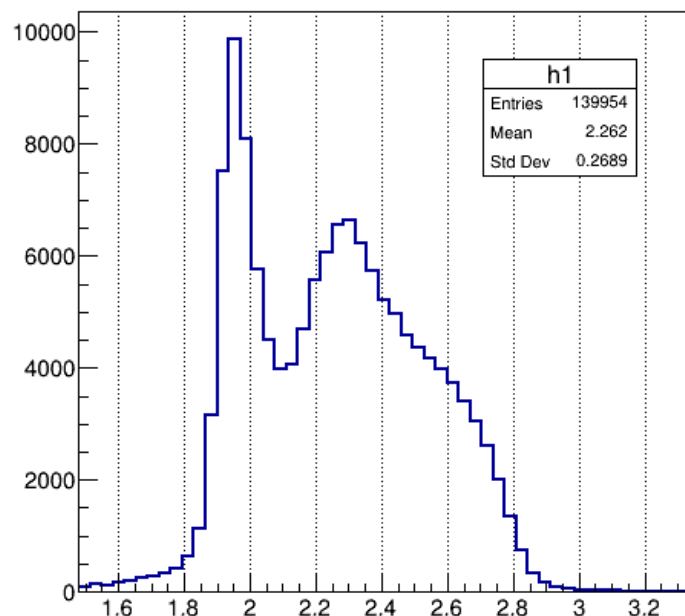
P.hgcer.npeSum



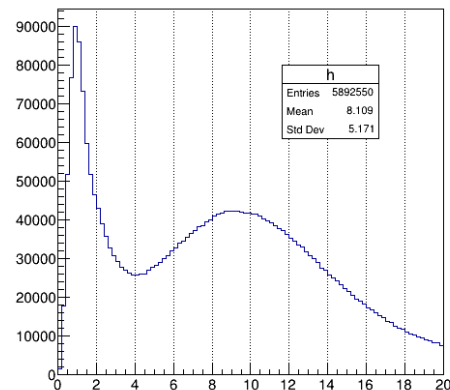
**D2 Runs 3430, 3431, 3432 : Setting 1-2 Pi+ and 5.05 GeV/c, pt = -0.06**

(pgtrbeta > 0.8 && pgtrbeta < 1.3 && pgtrdp < 20 && pgtrdp > -10 &&  
**paeronpesum > 5** && ctime-10 > -1 && ctime-10 < 1 && sqrt(misseng\*misseng-  
missmom\*missmom) > 1.8 && sqrt(misseng\*misseng-missmom\*missmom) < 2.1)  
**[&& phgcernpesum > 3.0]**

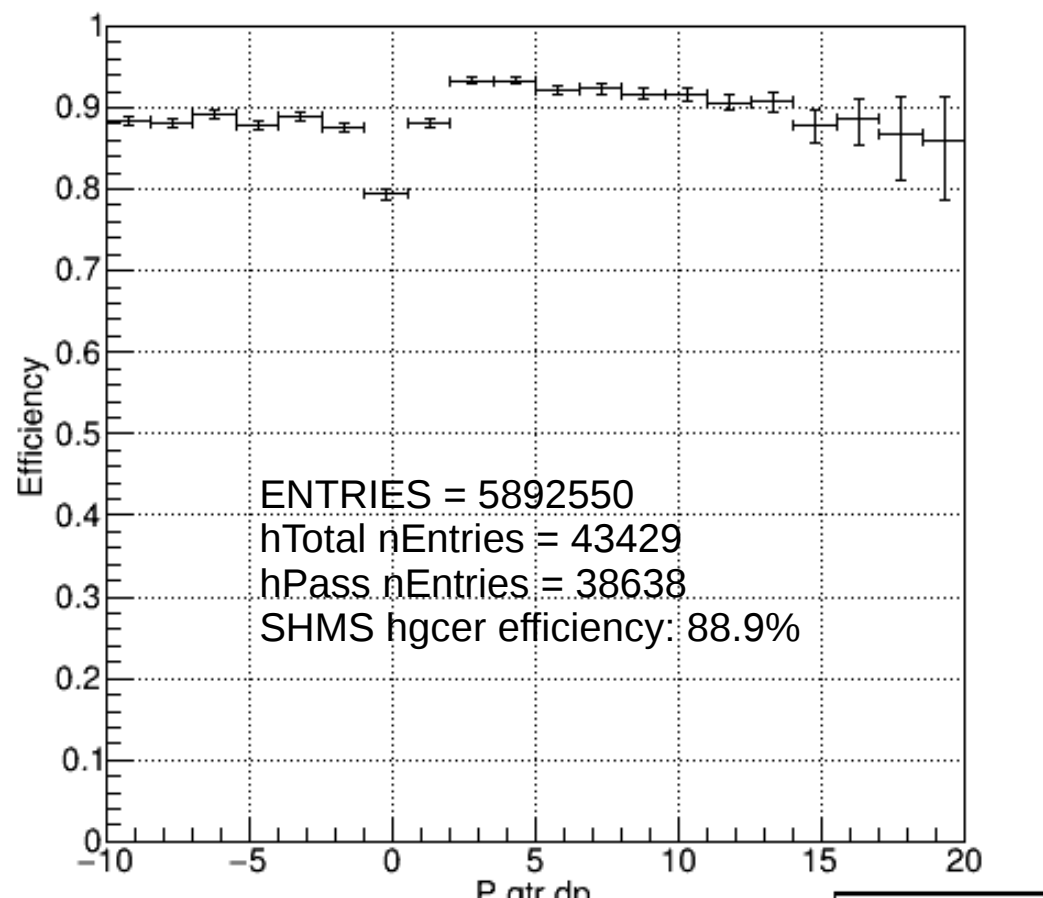
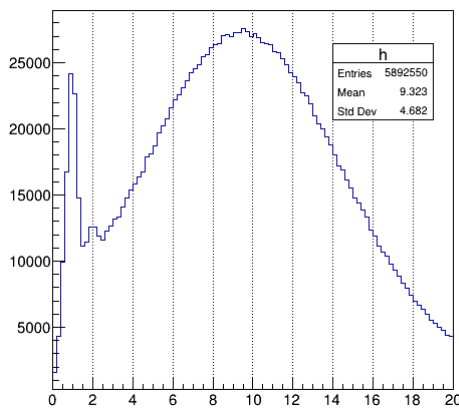
Missing Mass



P.aero.npeSum



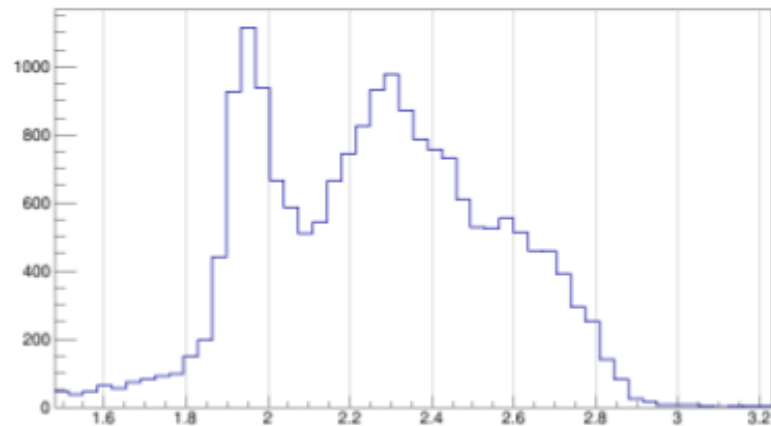
P.hgcer.npeSum



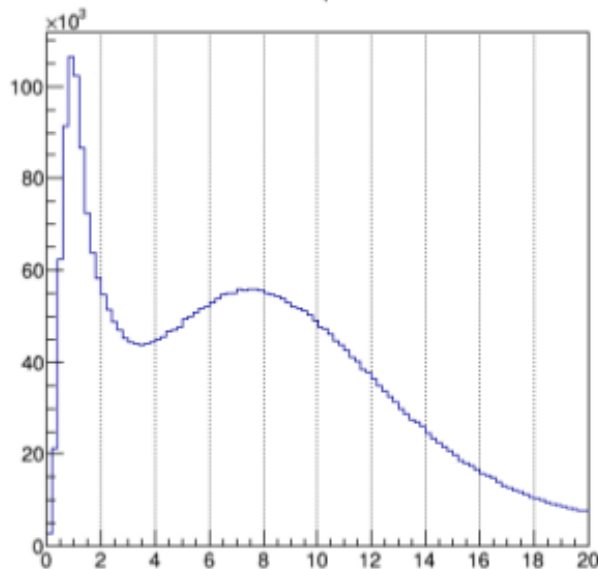
(pgtrbeta > 0.8 && pgtrbeta < 1.3 && pgtrdp < 20 && pgtrdp > -10 && **paeronpesum > 5**  
&& ctime+16 > -1 && ctime+16 < 1 && sqrt(misseng\*misseng-missmom\*missmom) > 1.8  
&& sqrt(misseng\*misseng-missmom\*missmom) < 2.1) [**&& phgcernoenum > 3.0**]

**NEED TO LOOK AGAIN CAREFULLY : MAY BE BECUASE  
THESE WERE THE VERY FIRST RUNS AND HAVE OTHER PROBLEMS**

Missing Mass



P.aero.npeSum



P.hgcer.npeSum



Efficiency vs Delta +5.05 GeV/c

