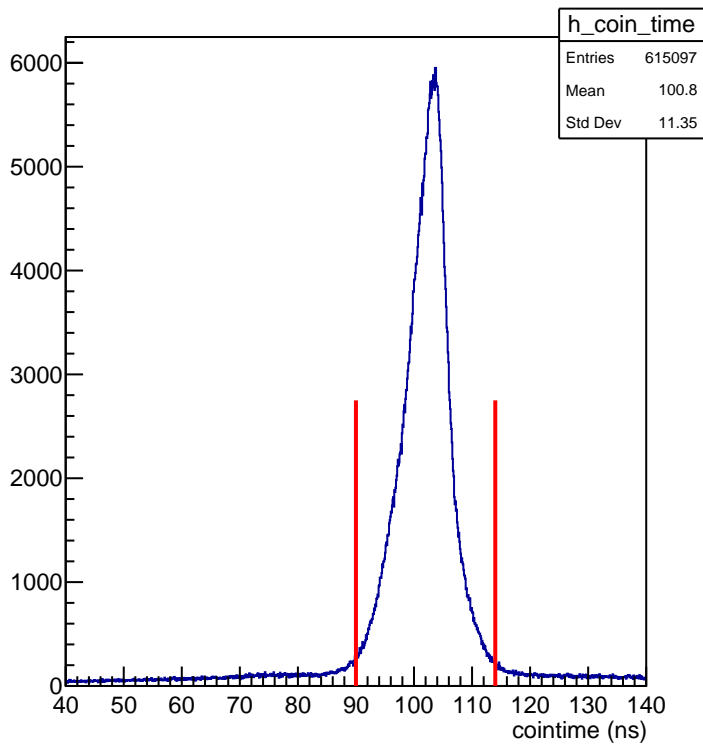
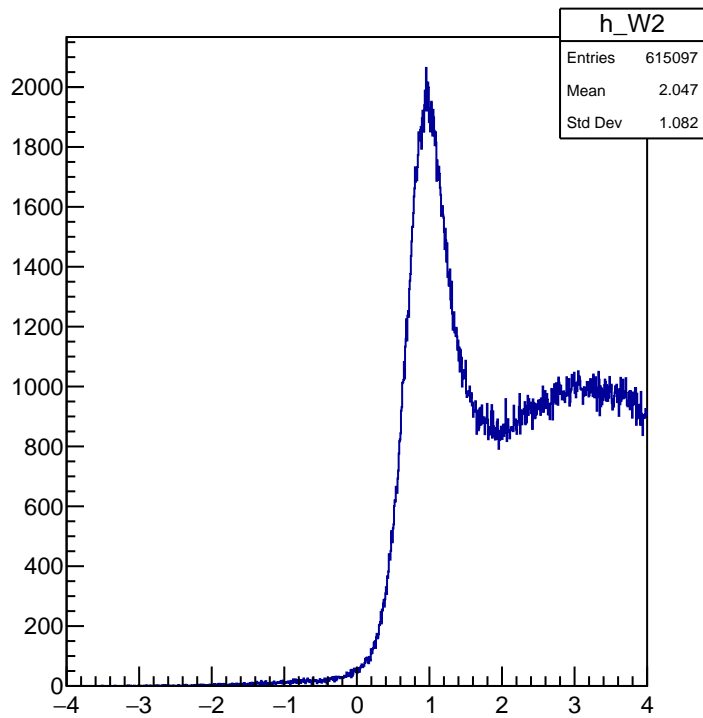


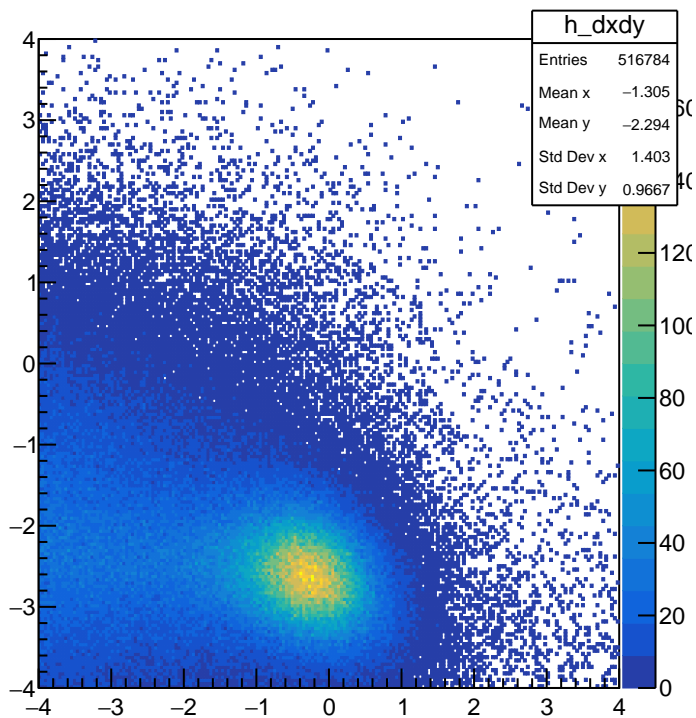
cointime (no cuts)



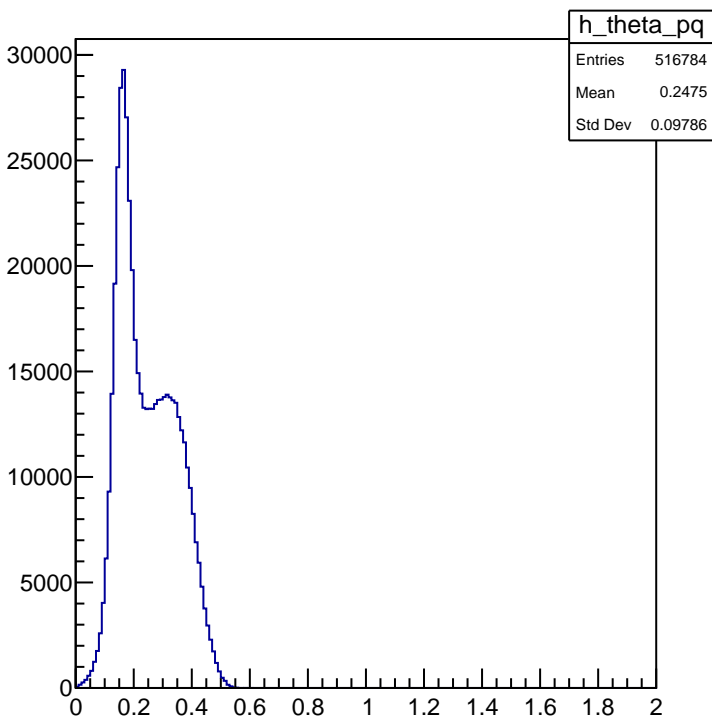
W2



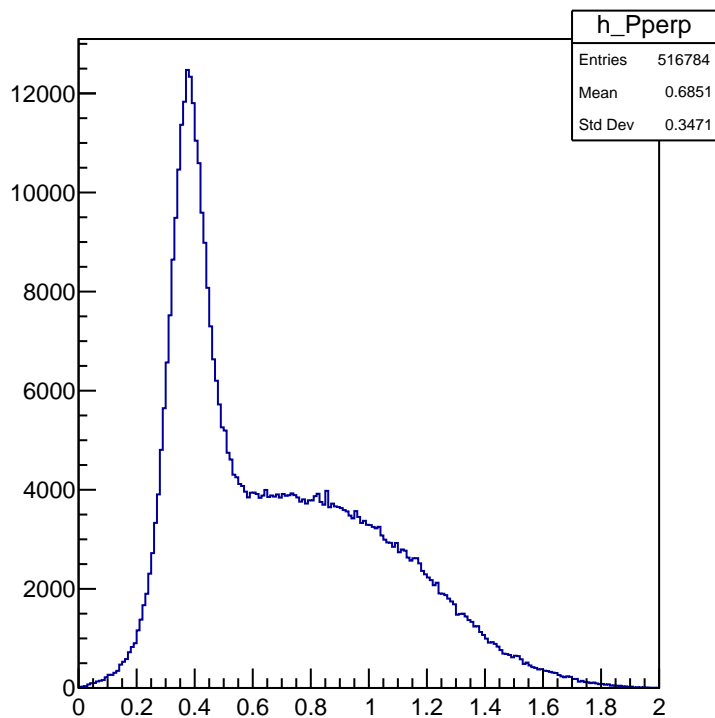
dxdy (cointime cut included)



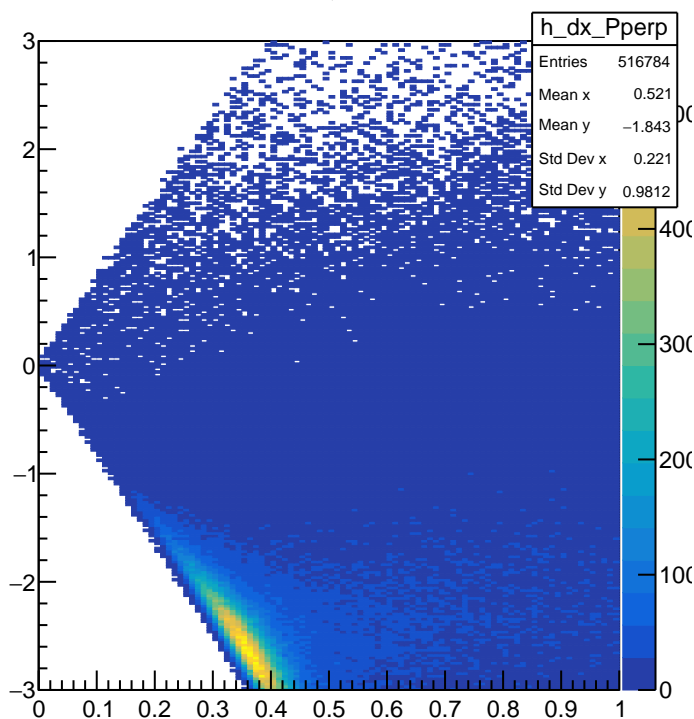
theta\_pq only with cointime cut



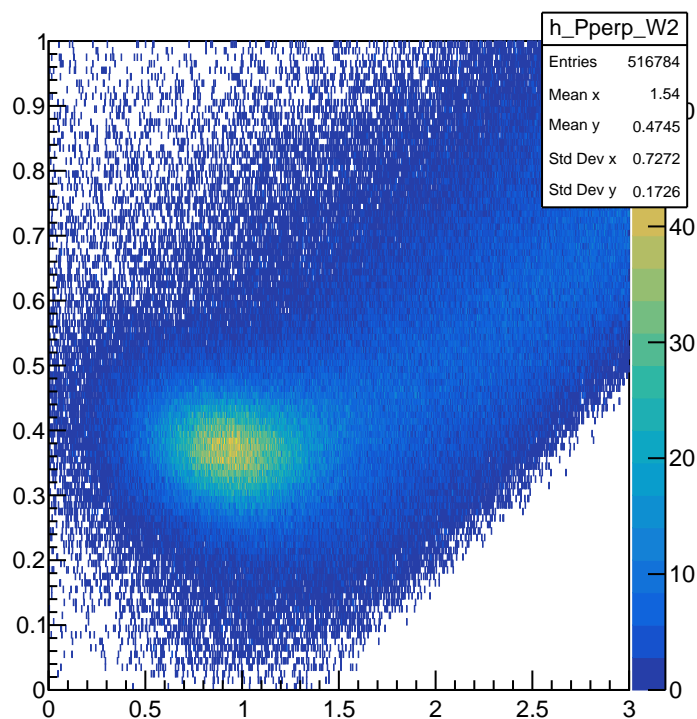
Pperp only with cointime cut



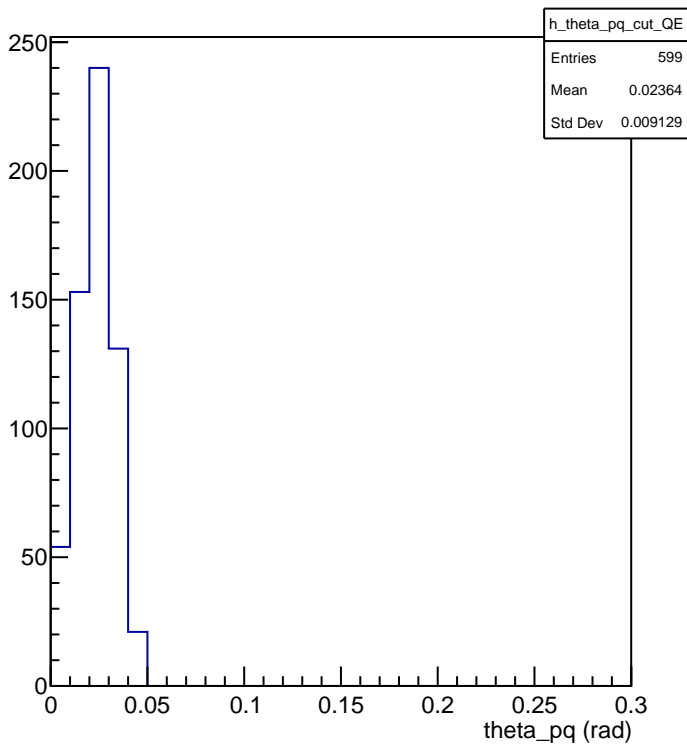
dx v Pperp dist only with cointime cut



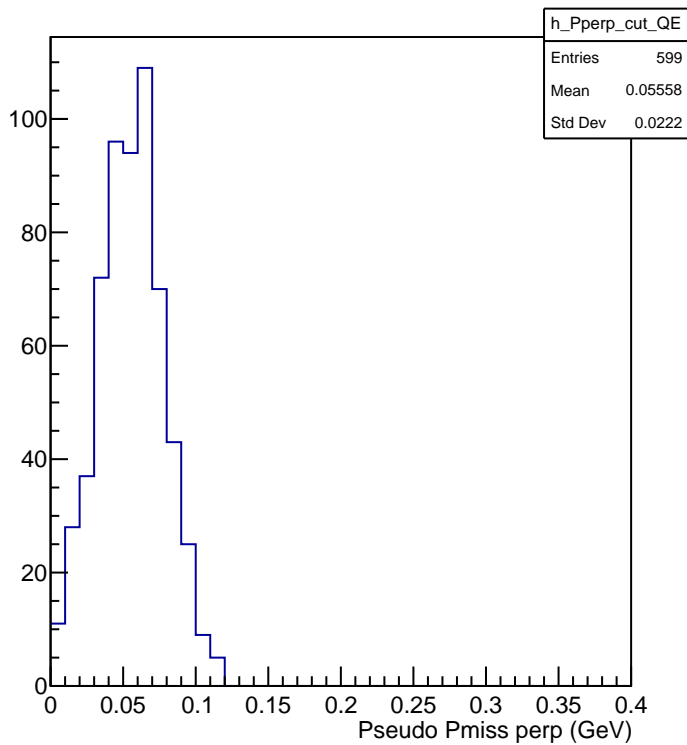
Pperp v W2 dist only with cointime cut



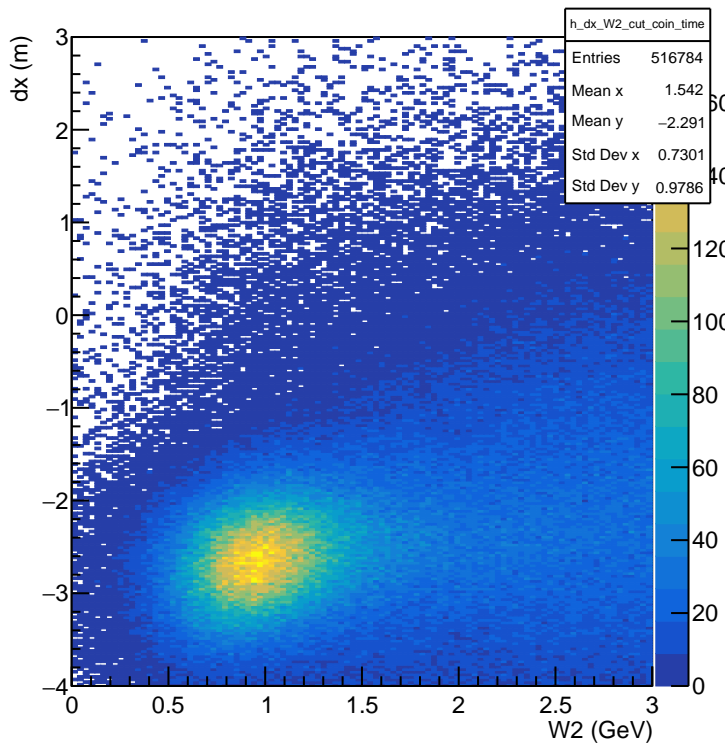
theta\_pq with QE cuts



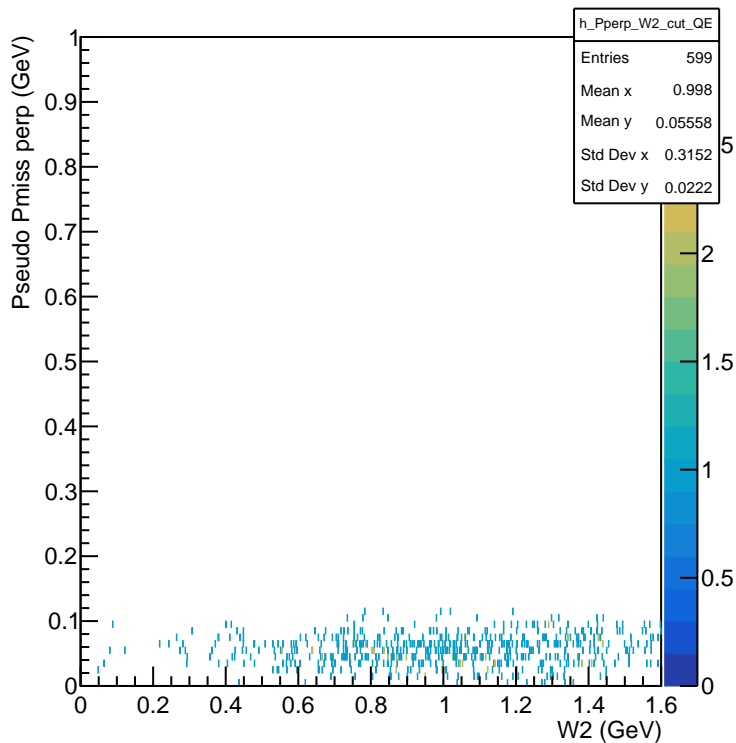
Pperp with QE cuts



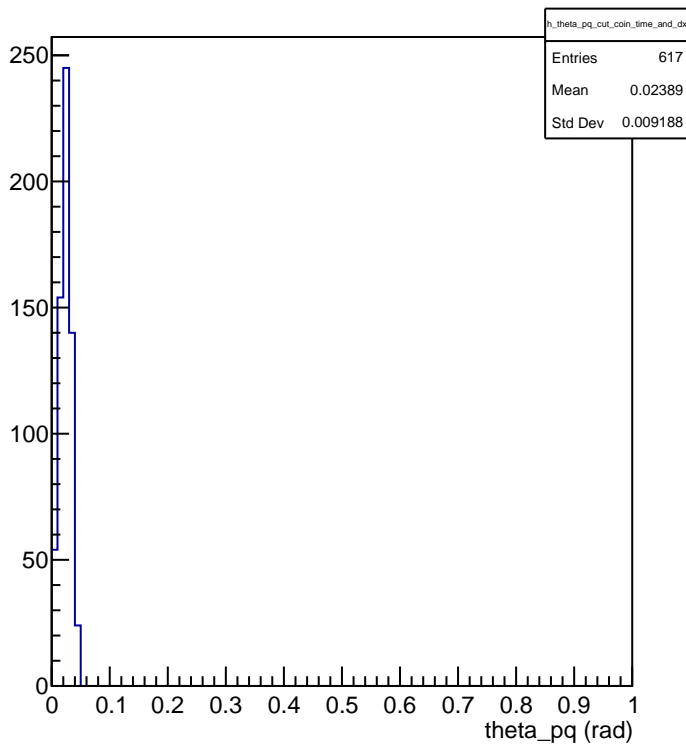
dx v W2 dist with coin time cut



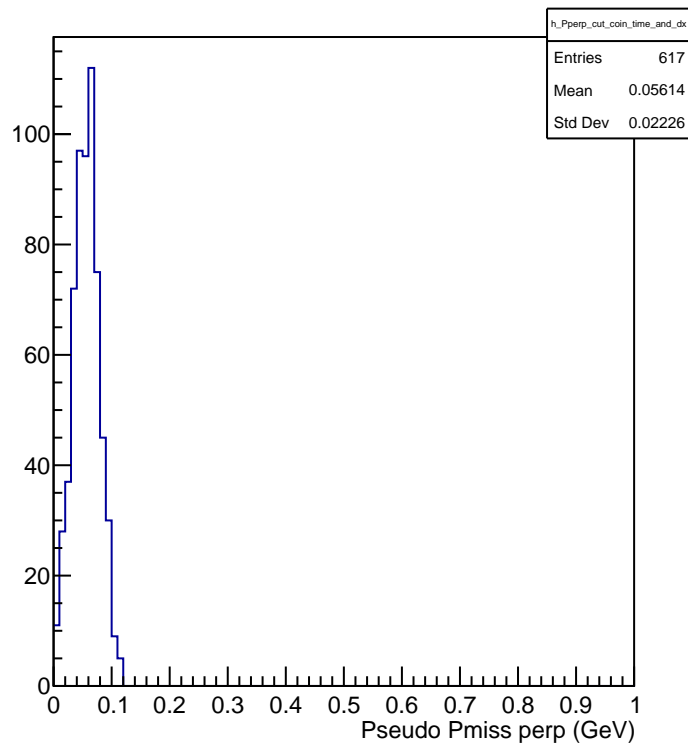
Pperp v W2 dist with QE cuts



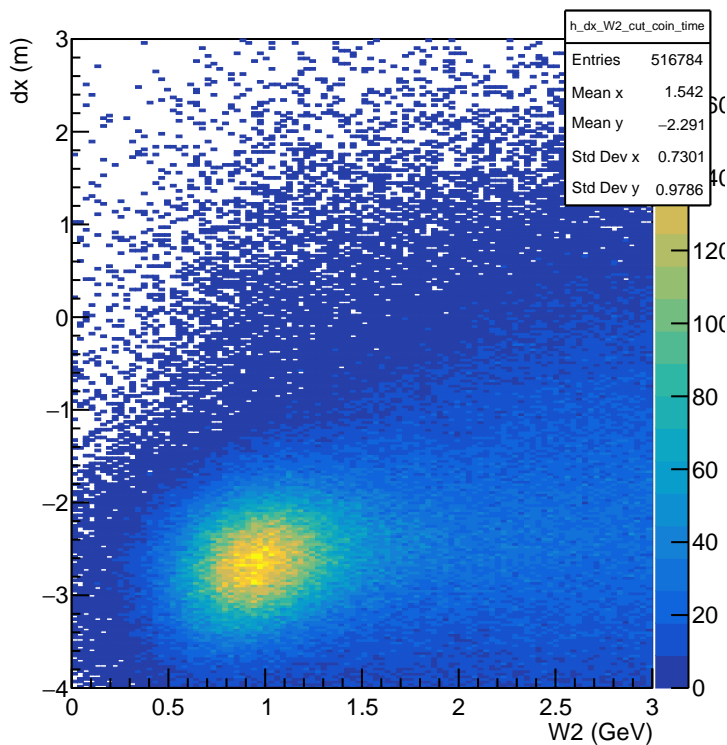
theta\_pq coin, dx and dy cuts



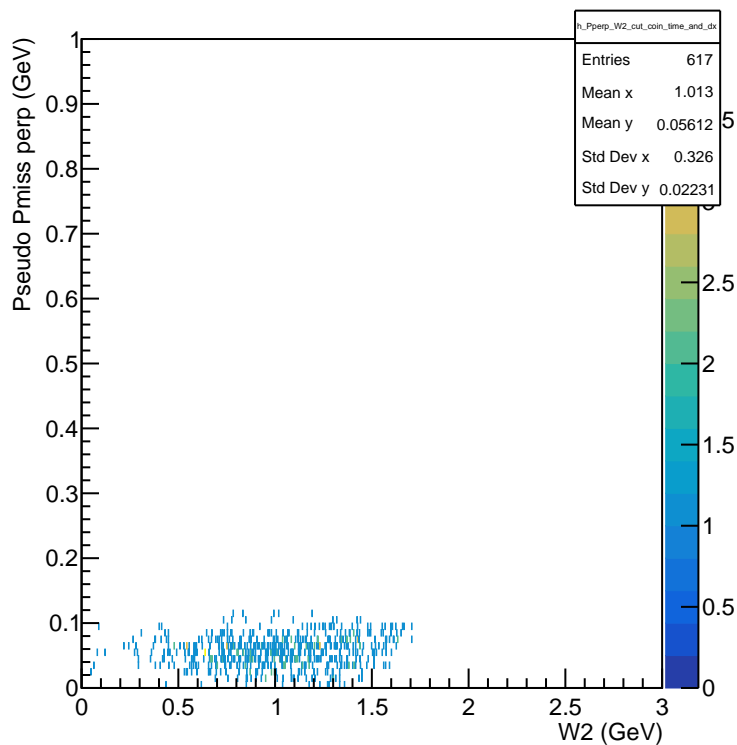
Pperp coin, dx and dy cuts



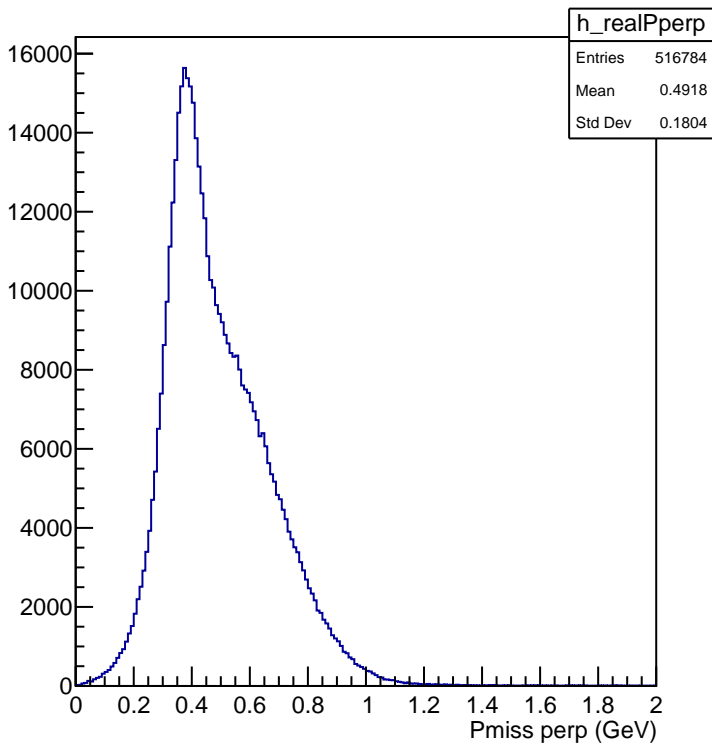
dx v W2 dist with coin time cut



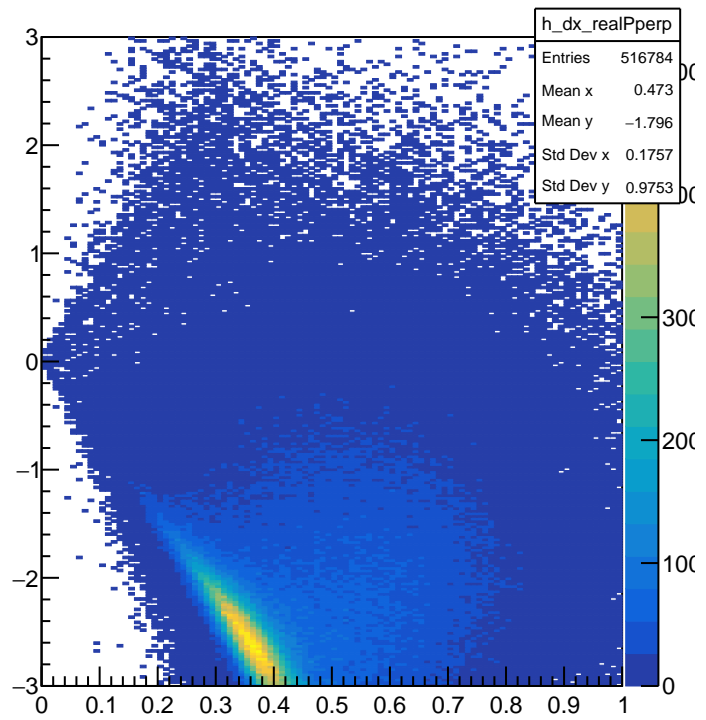
Pperp v W2 dist coin, dx and dy cuts



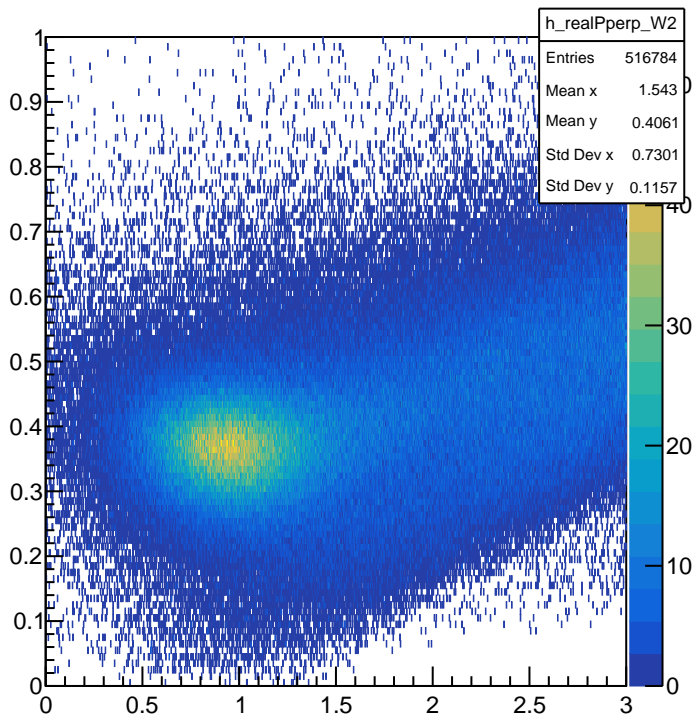
realPperp only with cointime cut



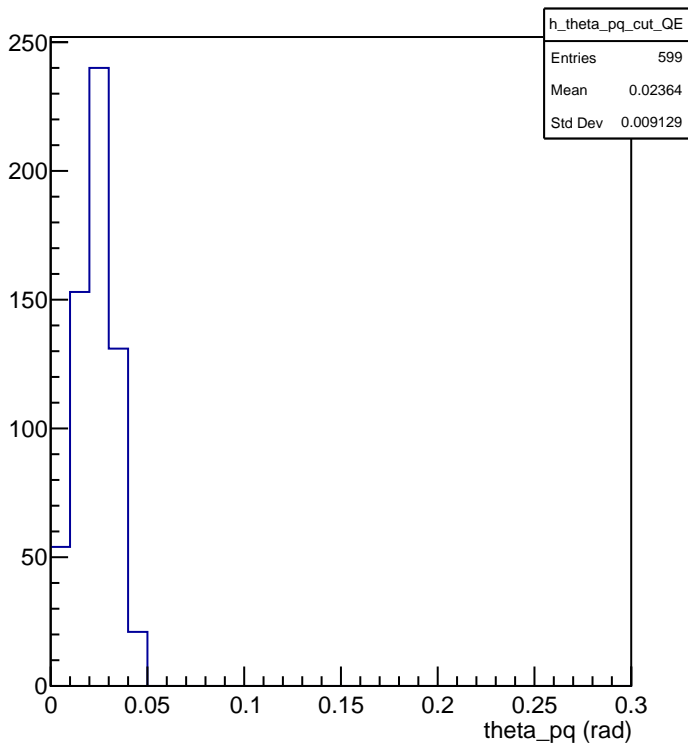
dx v realPperp dist only with cointime cut



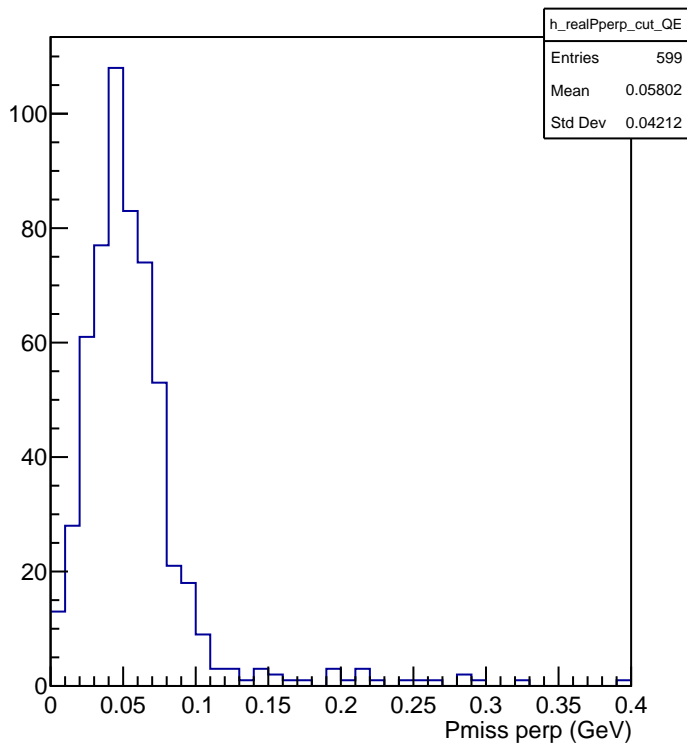
realPperp v W2 dist only with cointime cut



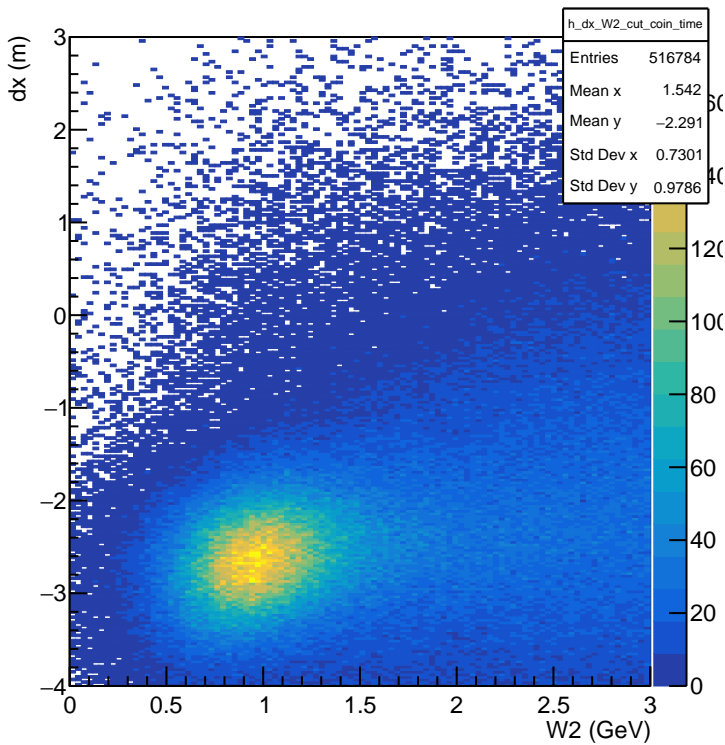
theta\_pq with QE cuts



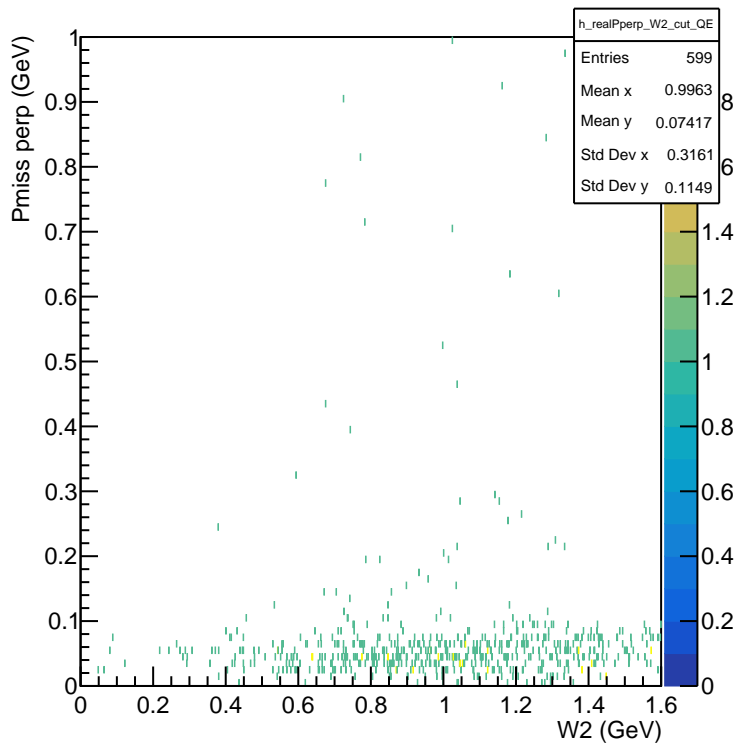
realPperp with QE cuts



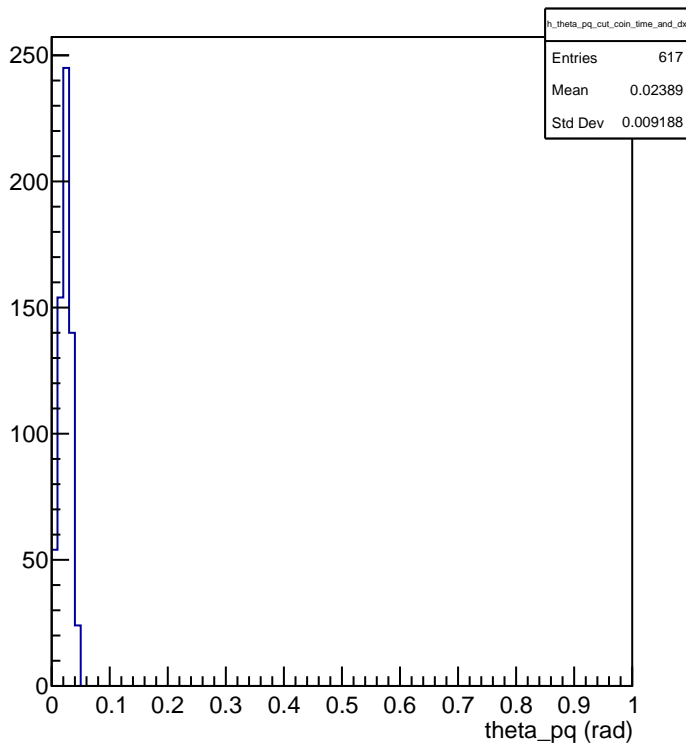
dx v W2 dist with coin time cut



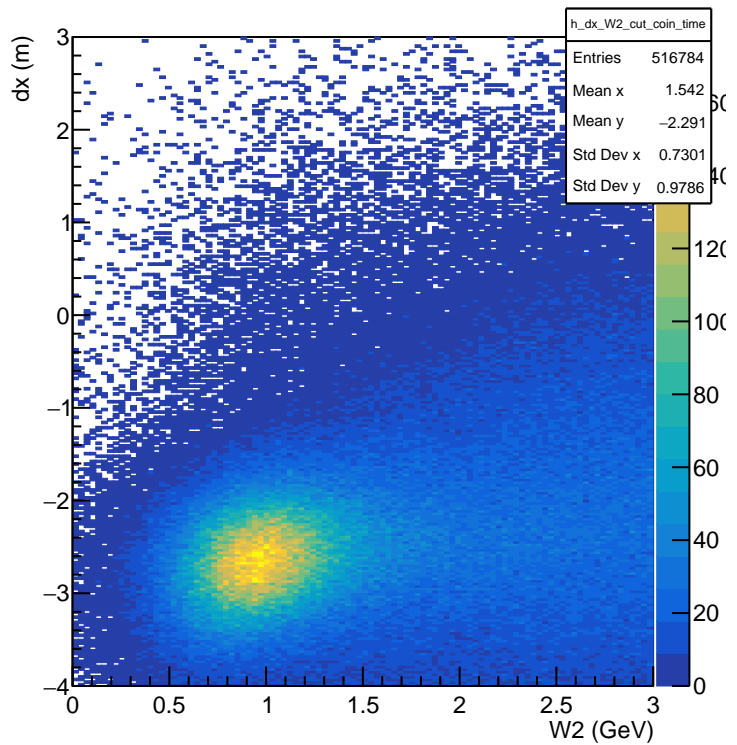
real Pperp v W2 dist with QE cuts



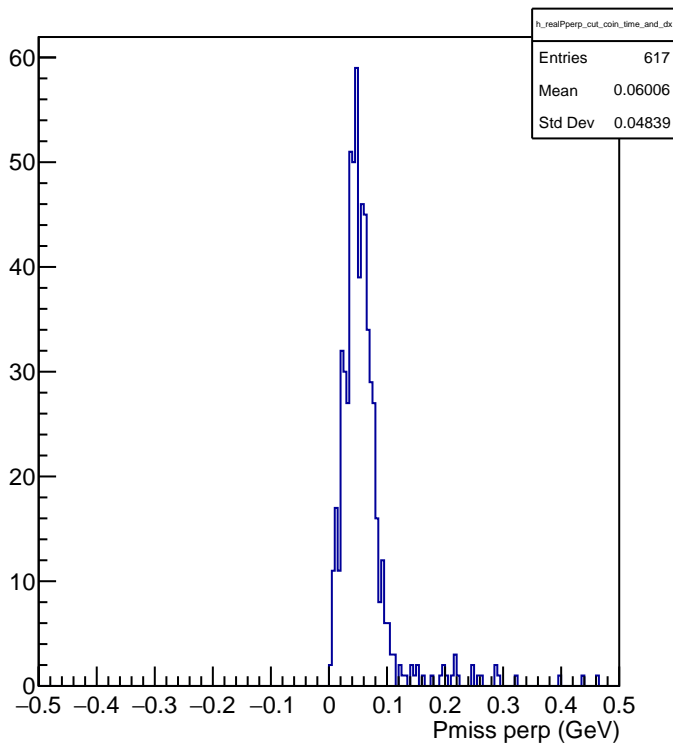
theta\_pq coin, dx and dy cuts



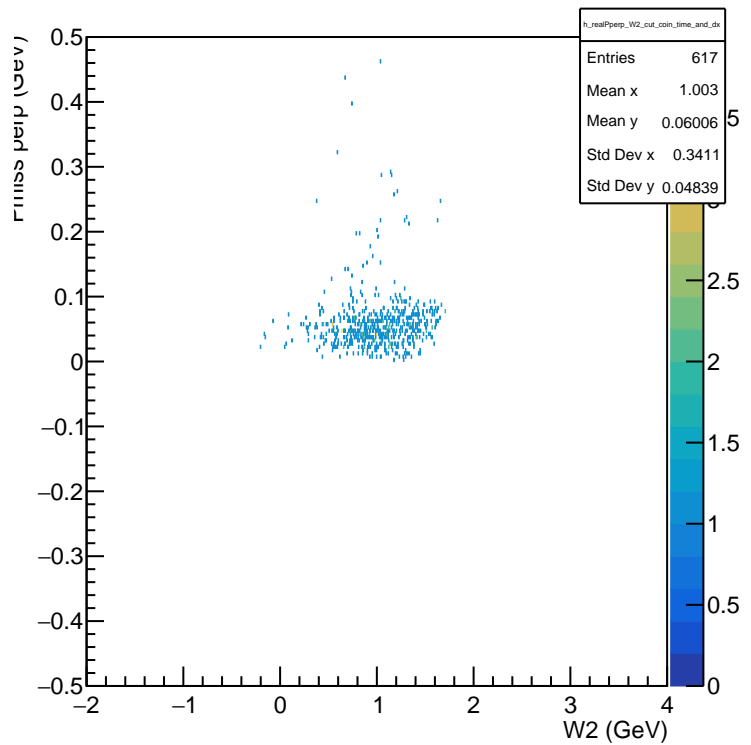
dx v W2 dist with coin time cut



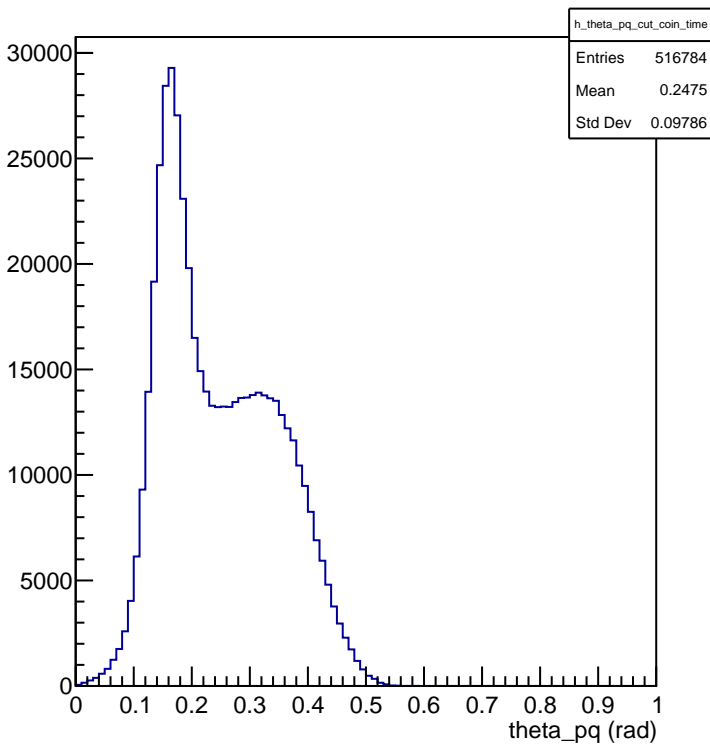
realPperp coin, dx and dy cuts



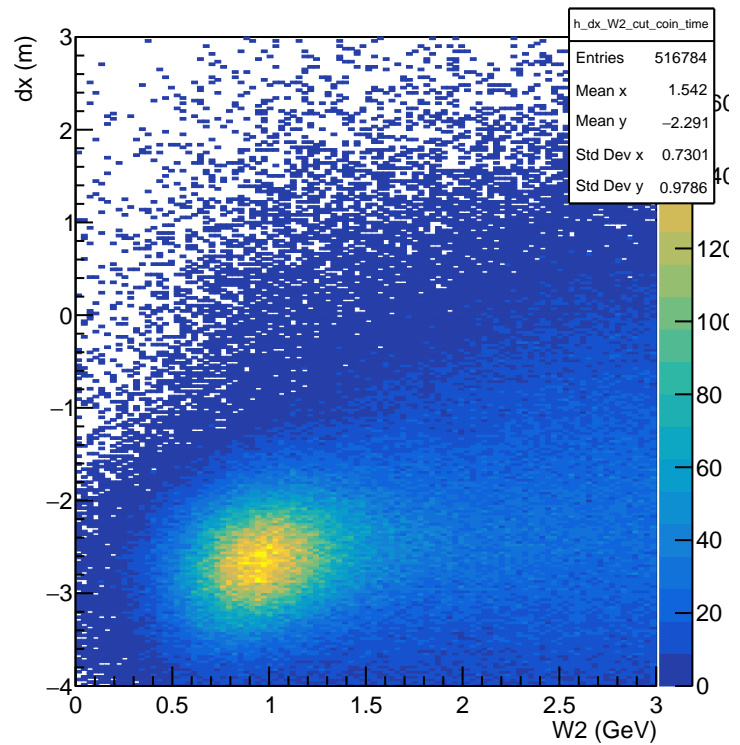
realPperp v W2 dist coin, dx and dy cuts



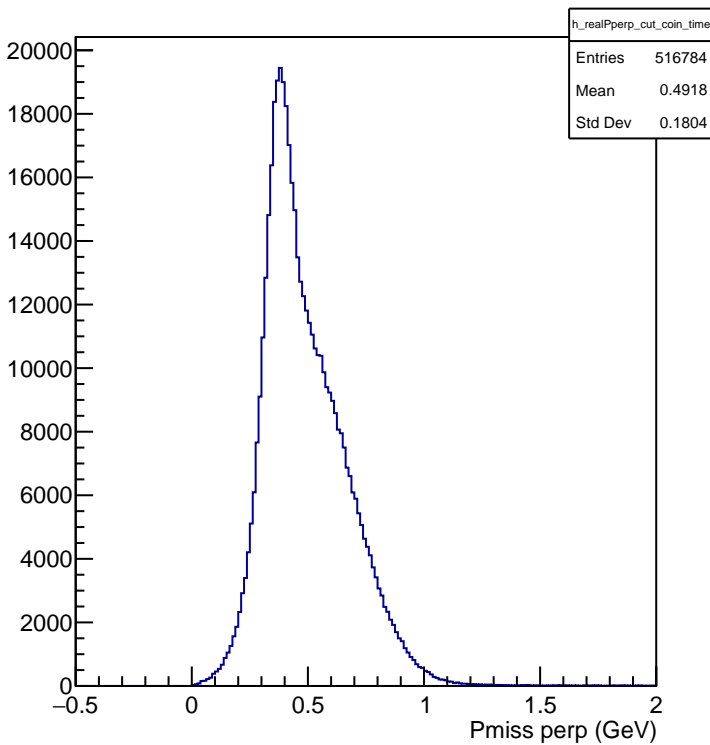
theta\_pq only with coin cut



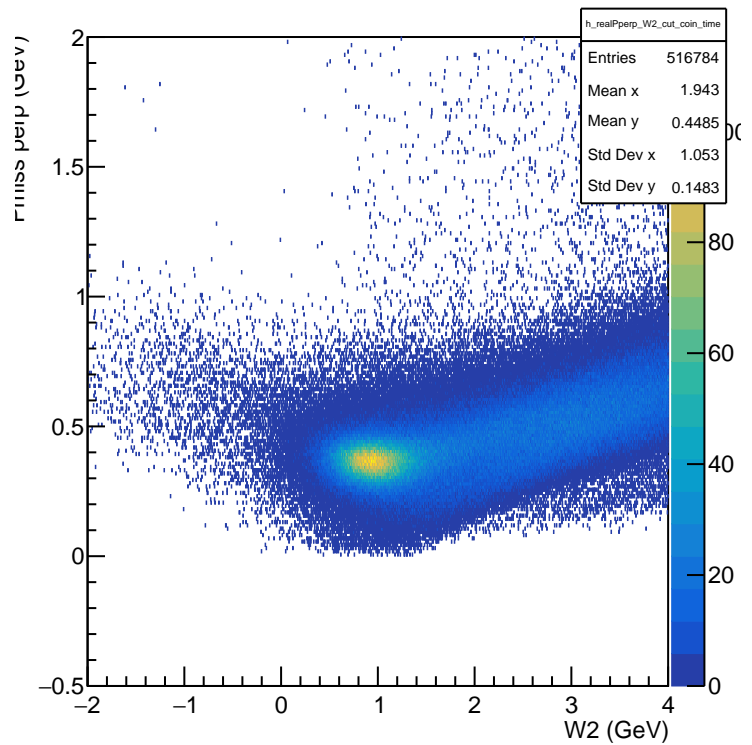
dx v W2 dist with coin time cut



realPperp only with coin cut

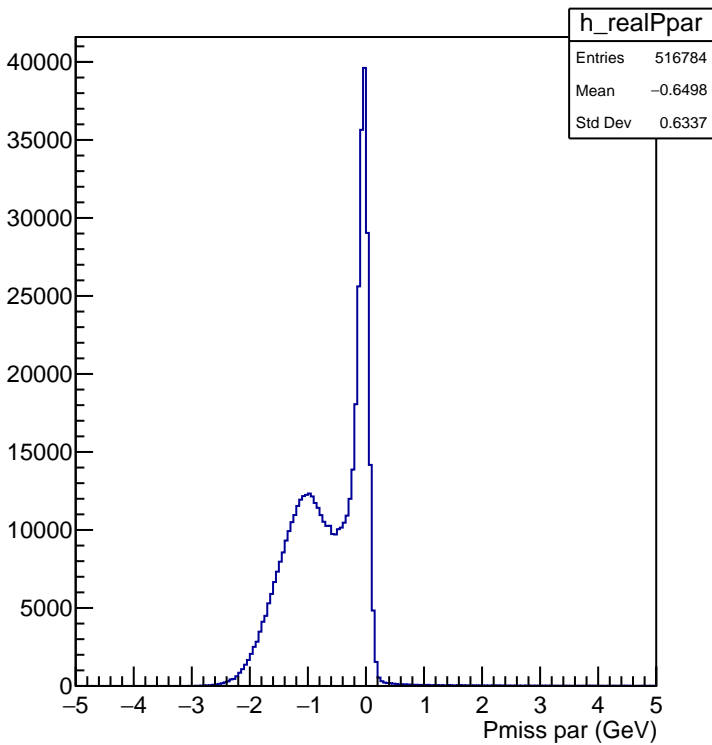


realPperp v W2 dist only with coin cut

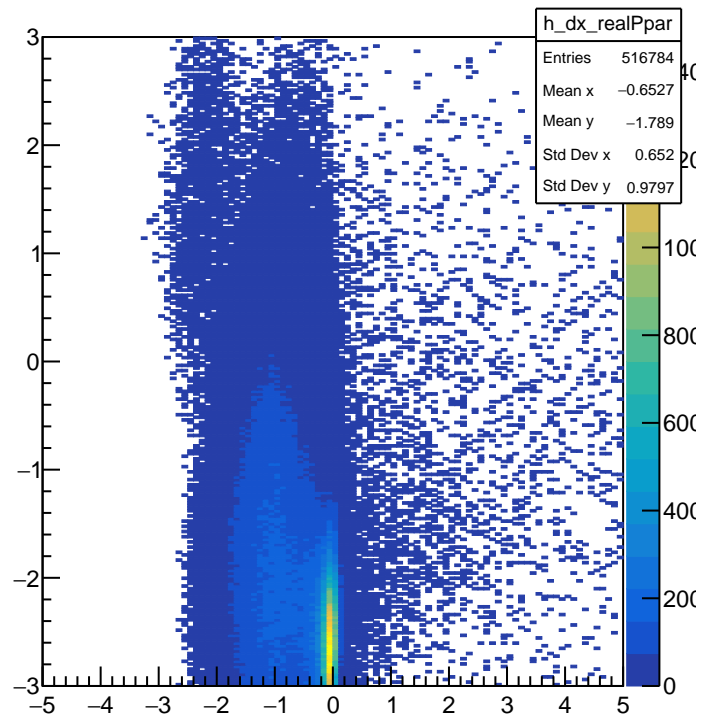




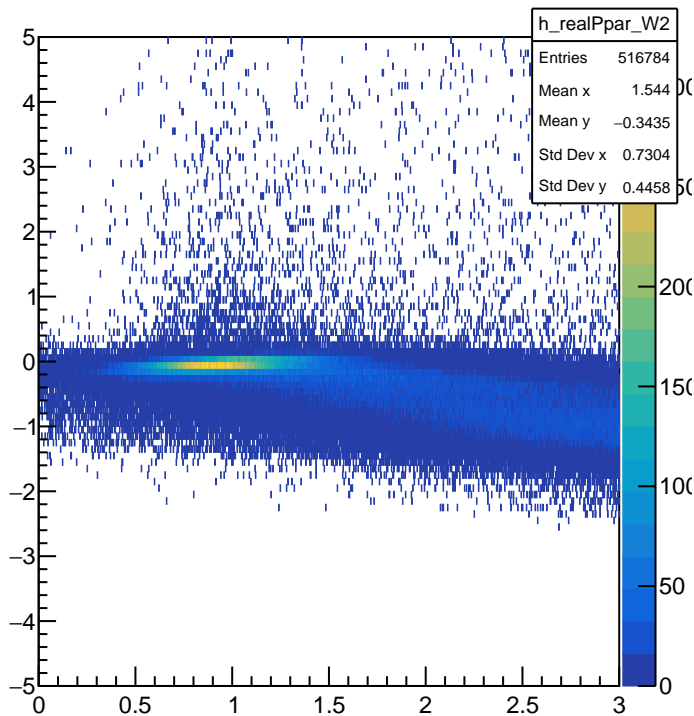
realPpar only with cointime cut



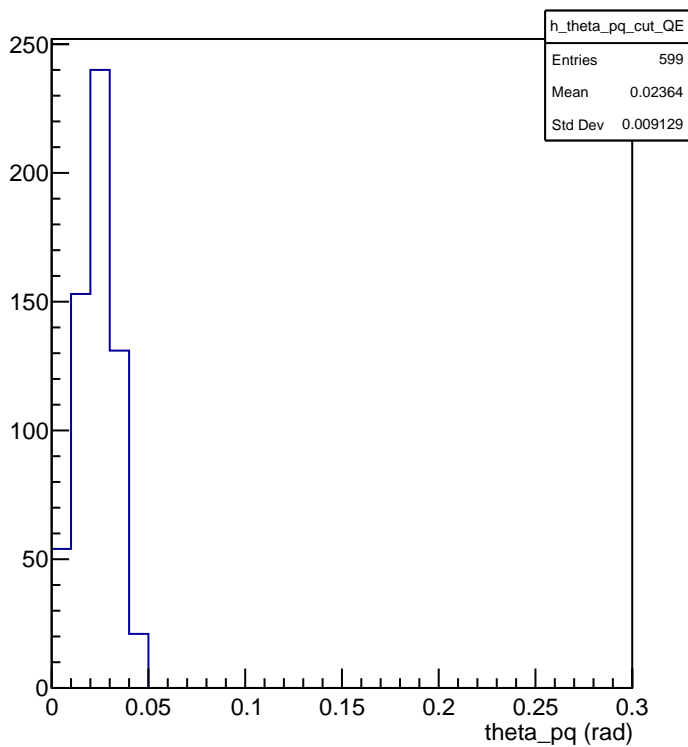
dx v realPpar dist only with cointime cut



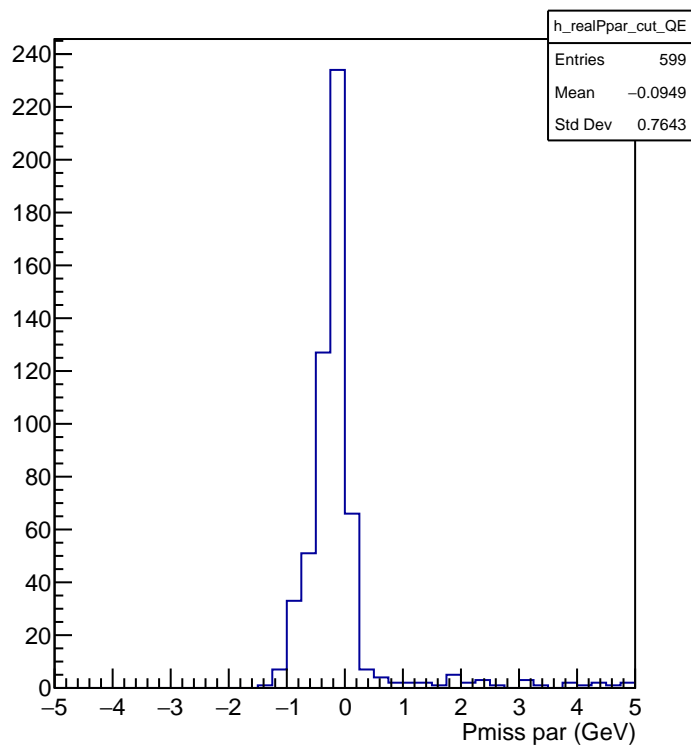
realPpar v W2 dist only with cointime cut



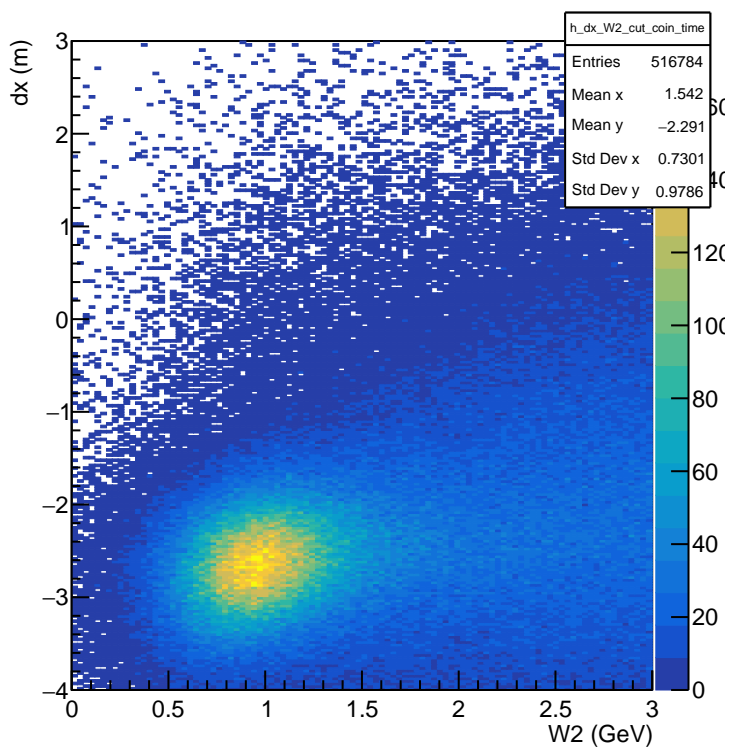
theta\_pq with QE cuts



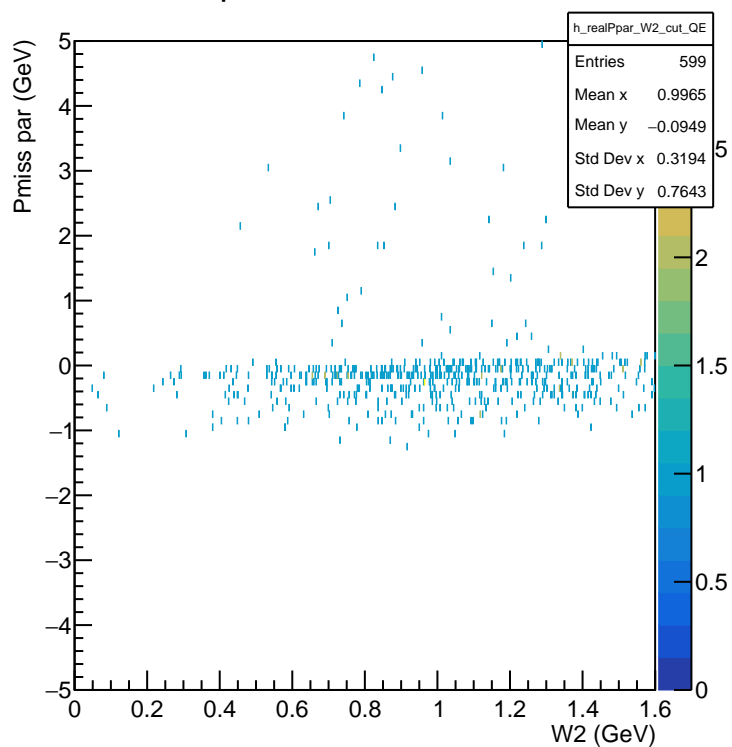
realPpar with QE cuts



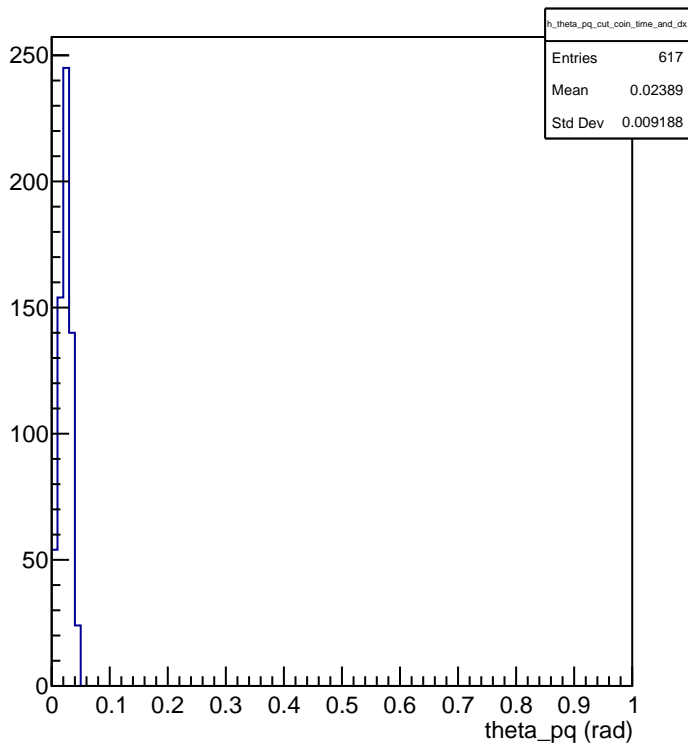
dx v W2 dist with coin time cut



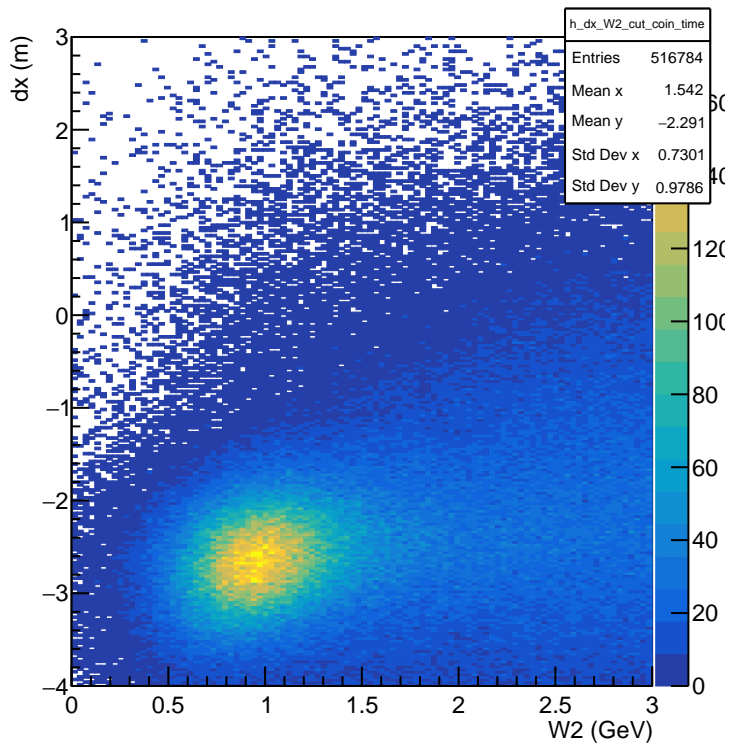
real Ppar v W2 dist with QE cuts



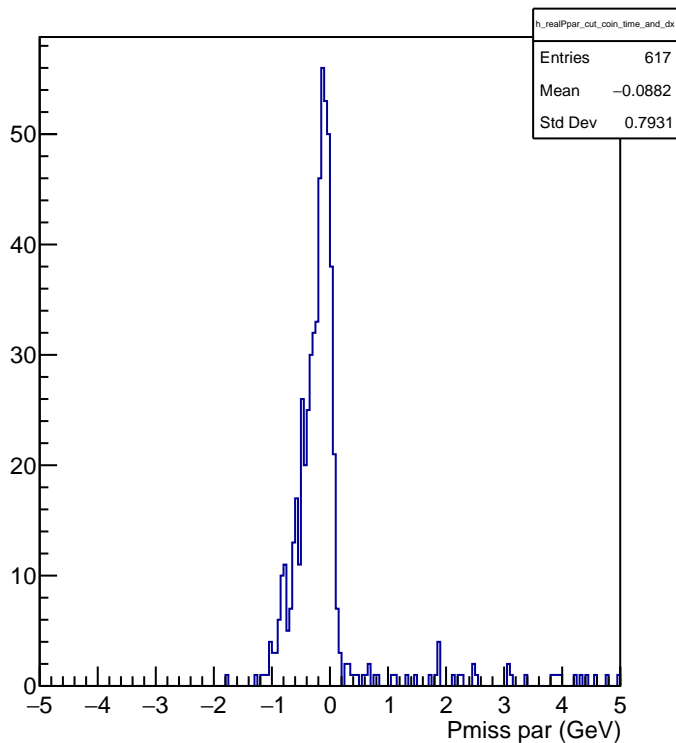
theta\_pq coin, dx and dy cuts



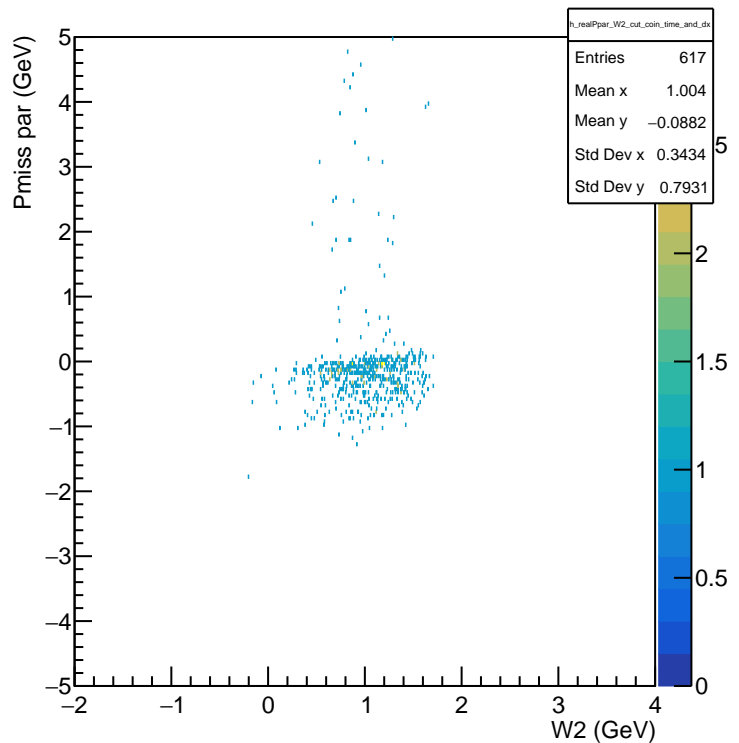
dx v W2 dist with coin time cut



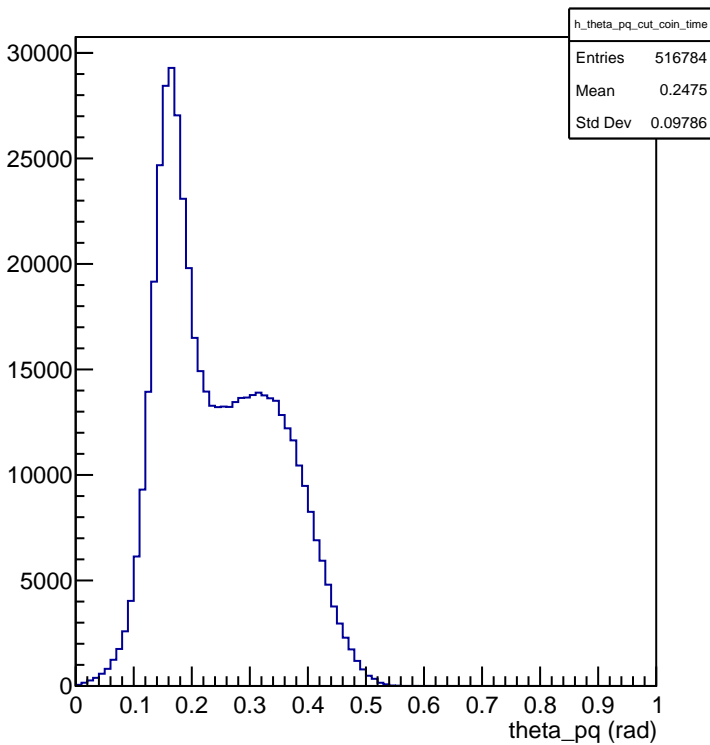
realPpar coin, dx and dy cuts



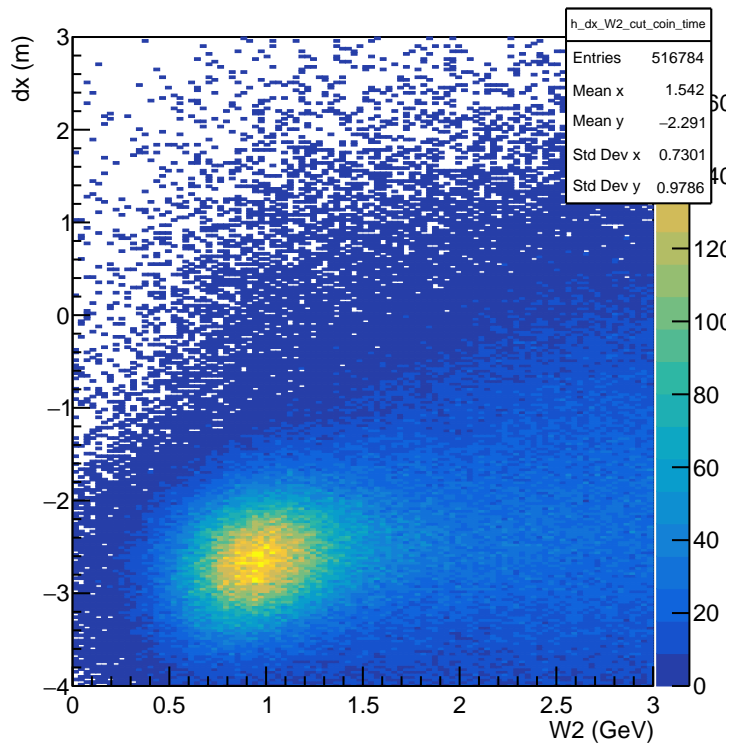
realPpar v W2 dist coin, dx and dy cuts



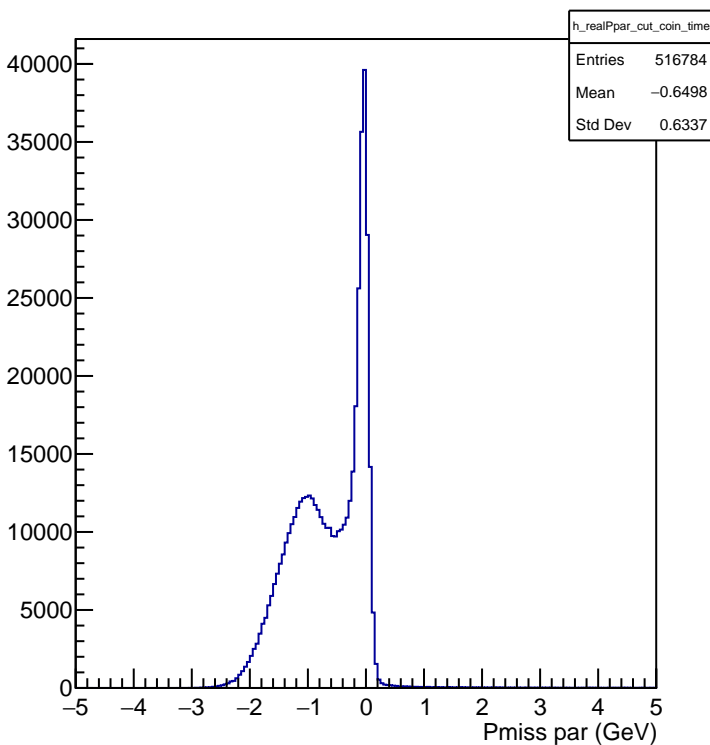
theta\_pq only with coin cut



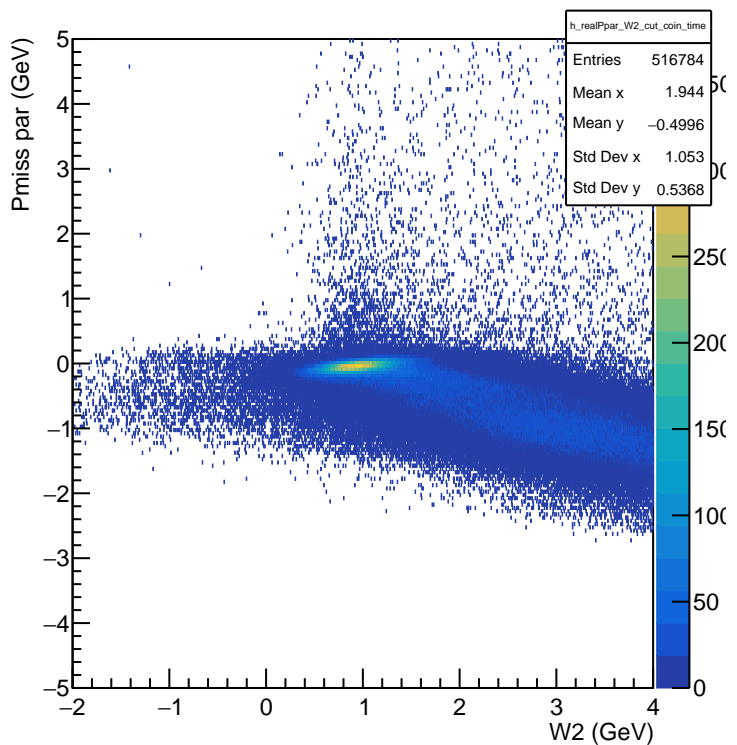
dx v W2 dist with coin time cut



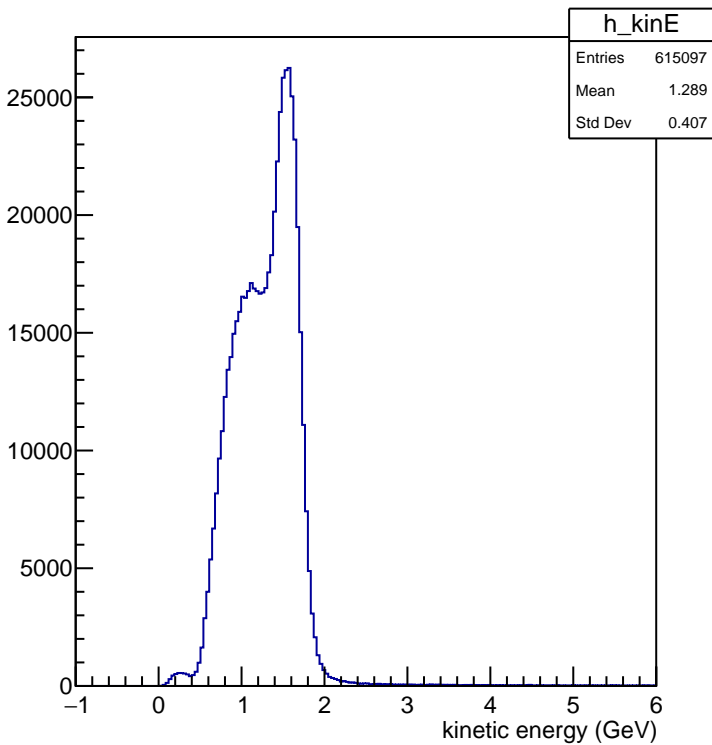
realPpar only with coin cut



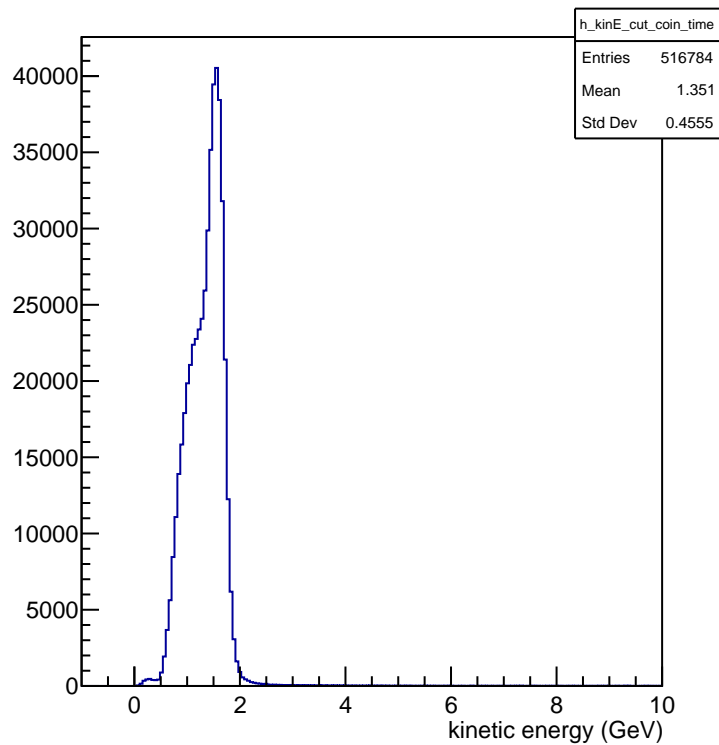
realPpar v W2 dist only with coin cut



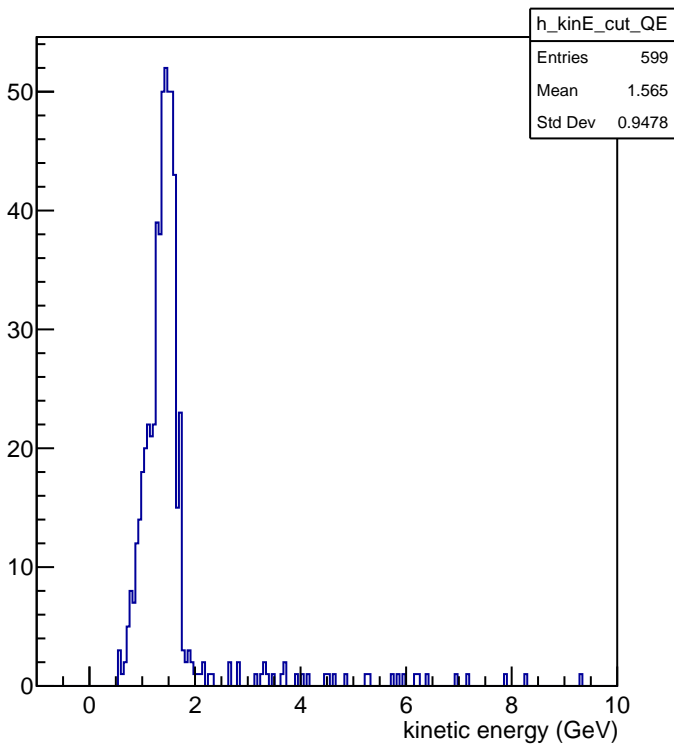
kinetic energy



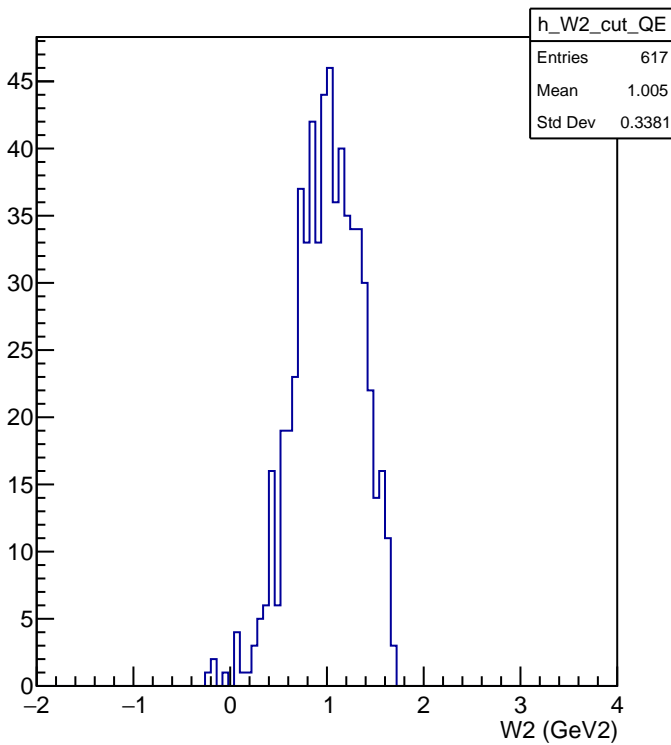
kinetic energy with cointime cut



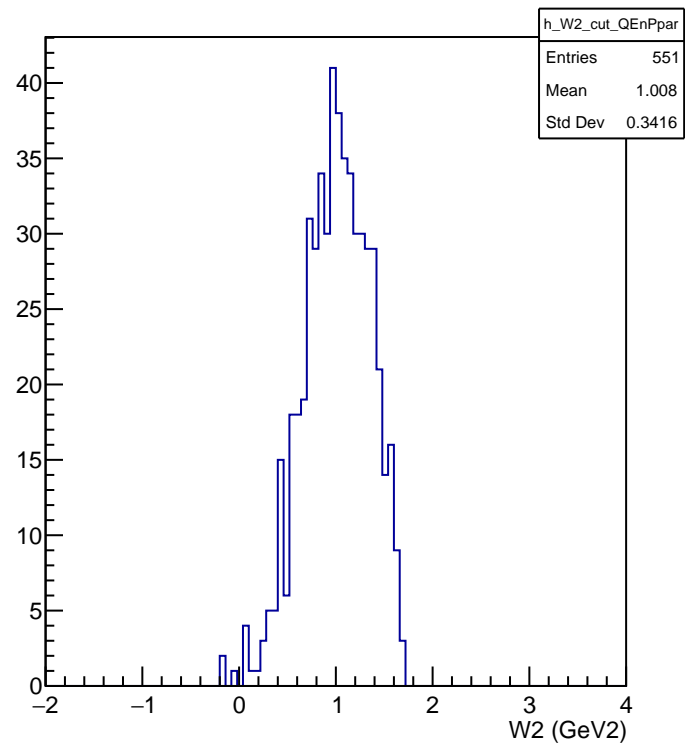
kinetic energy with QE cuts



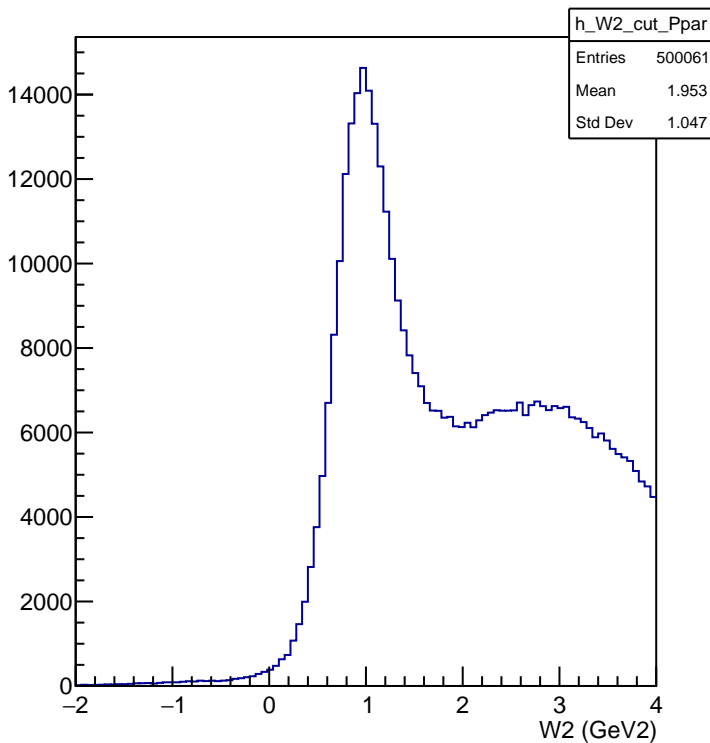
W2 distribution with coin, dx, and dy



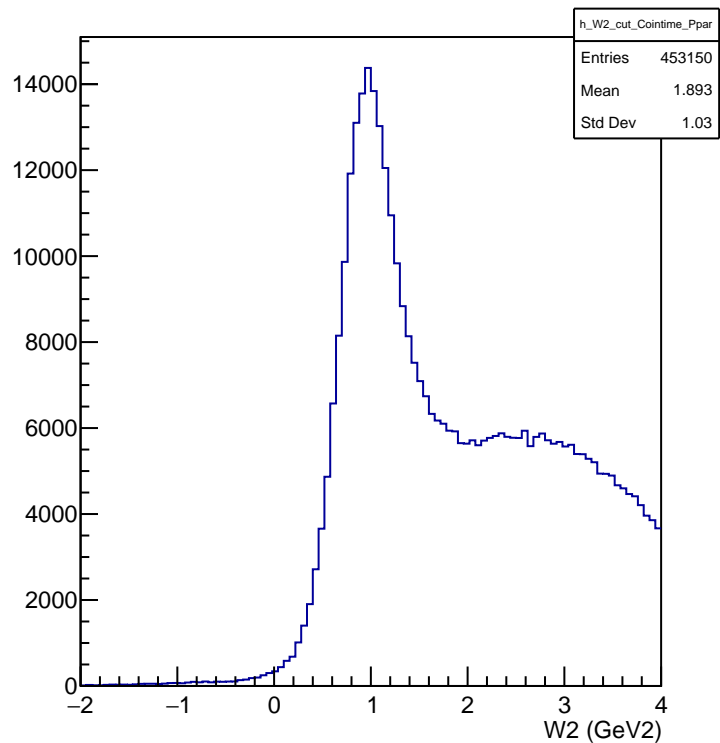
W2 distribution with coin, dx, dy and Ppar cuts



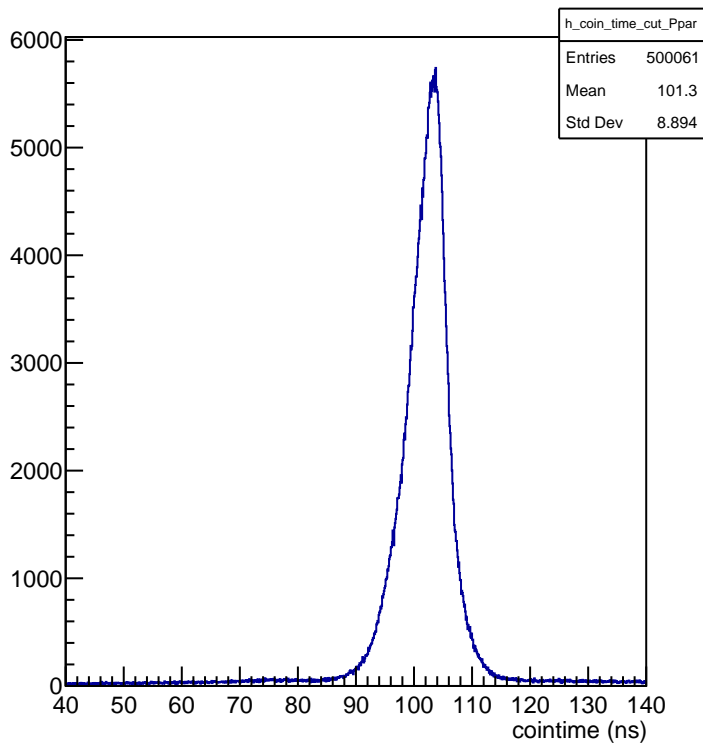
W2 distribution only with Ppar cut



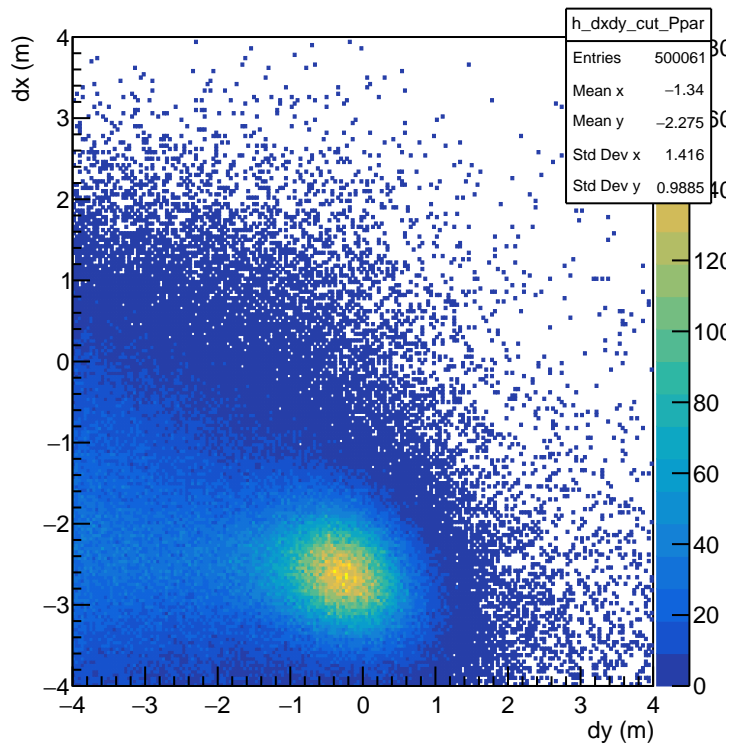
W2 distribution with Cointime and Ppar cut



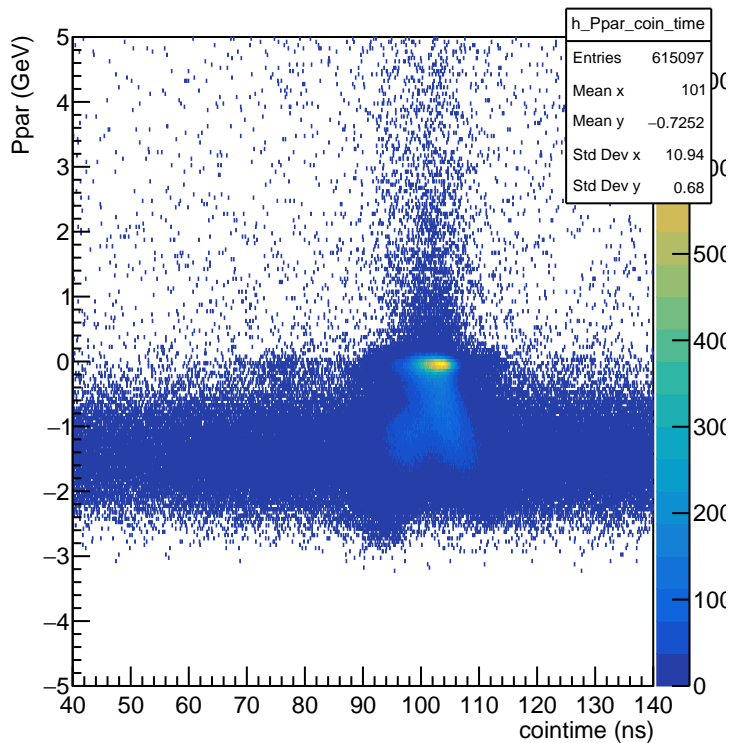
cointime distribution only with Ppar cut



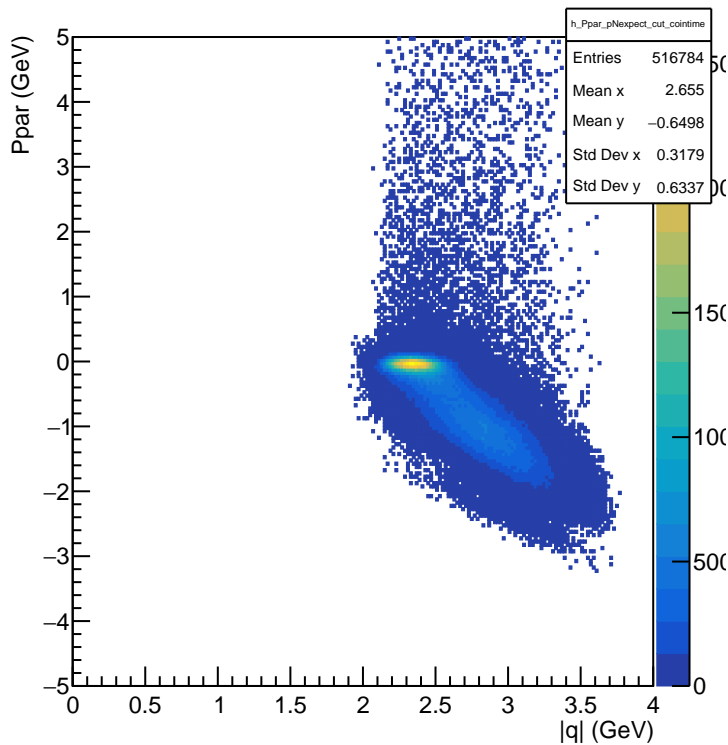
dxdy only with Ppar cut



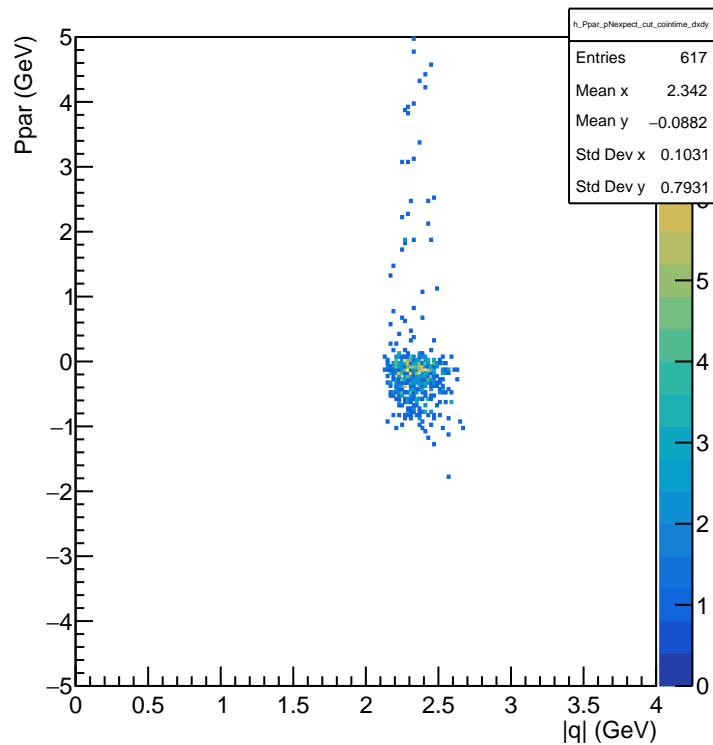
Ppar v cointime distribution



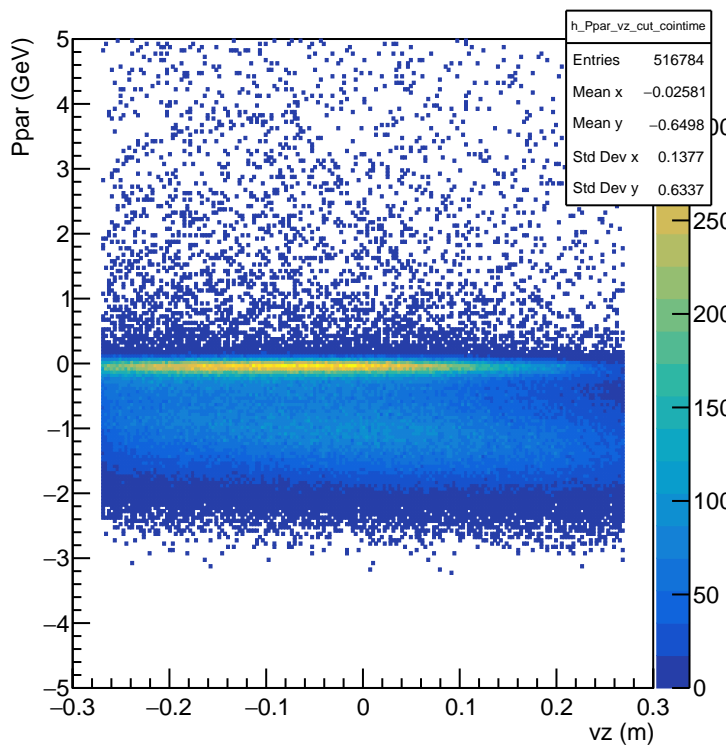
Ppar v |q| only with coin cut



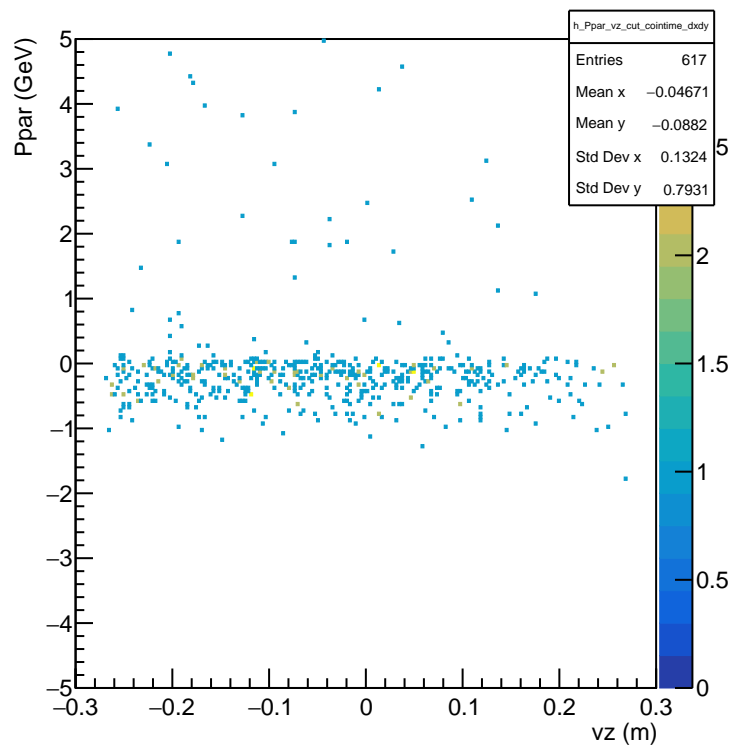
Ppar v |q| with coin, dx and dy cuts



Ppar v vz only with coin cut

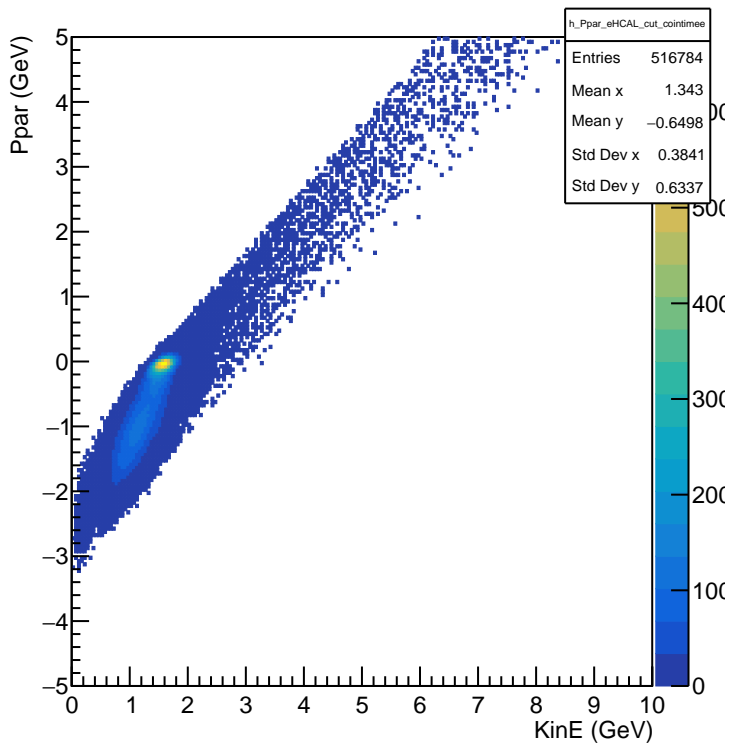


Ppar v vz with coin, dx and dy cuts

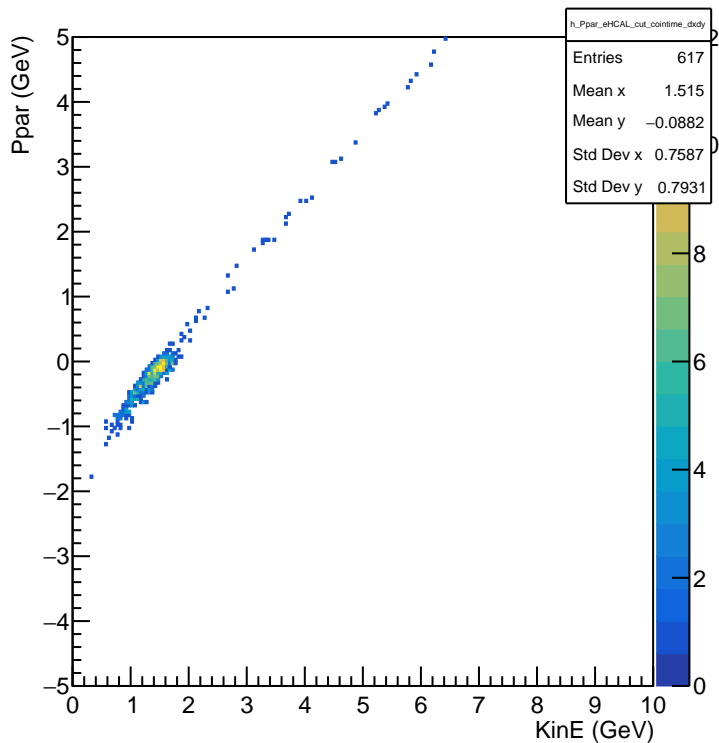




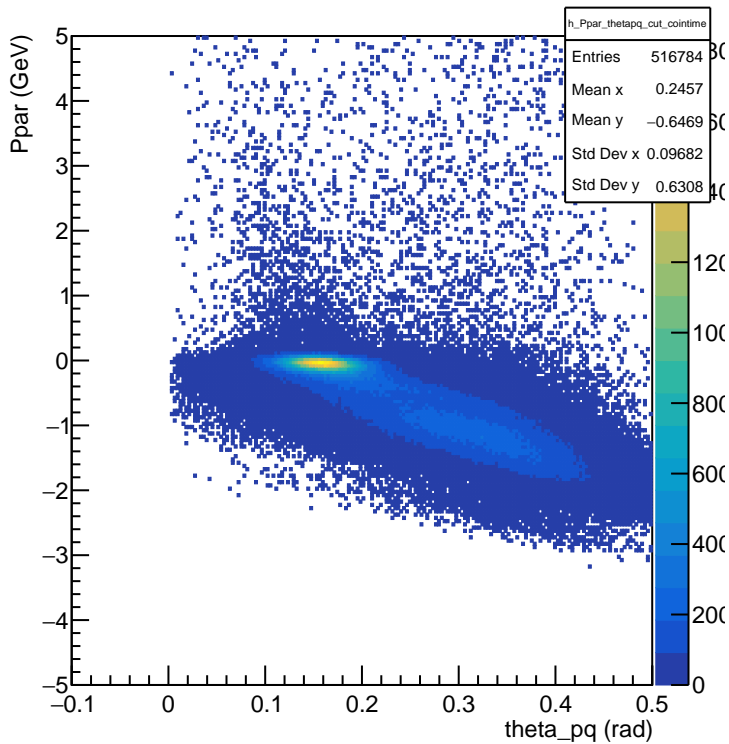
Ppar v eHCAL (KinE) only with coin cut



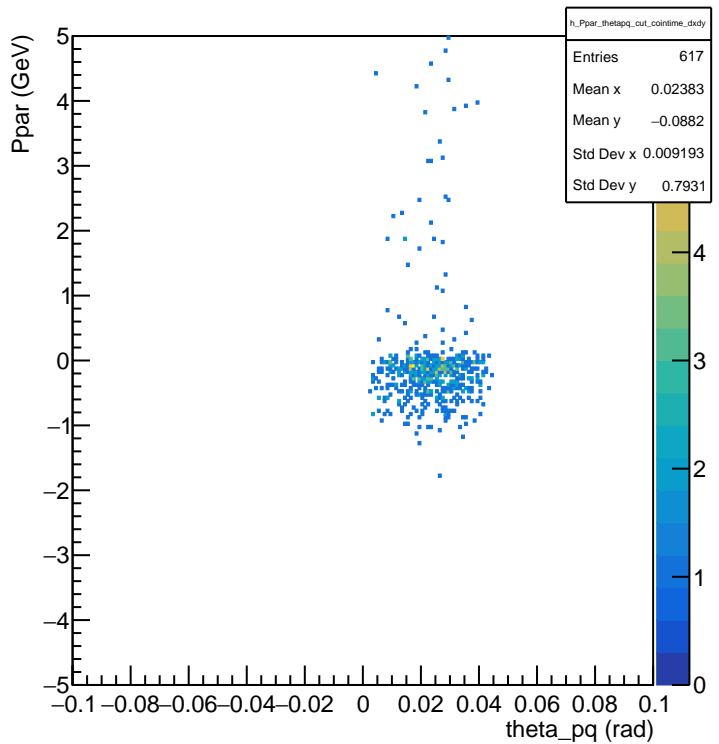
Ppar v eHCAL (KinE) with coin, dx and dy cuts



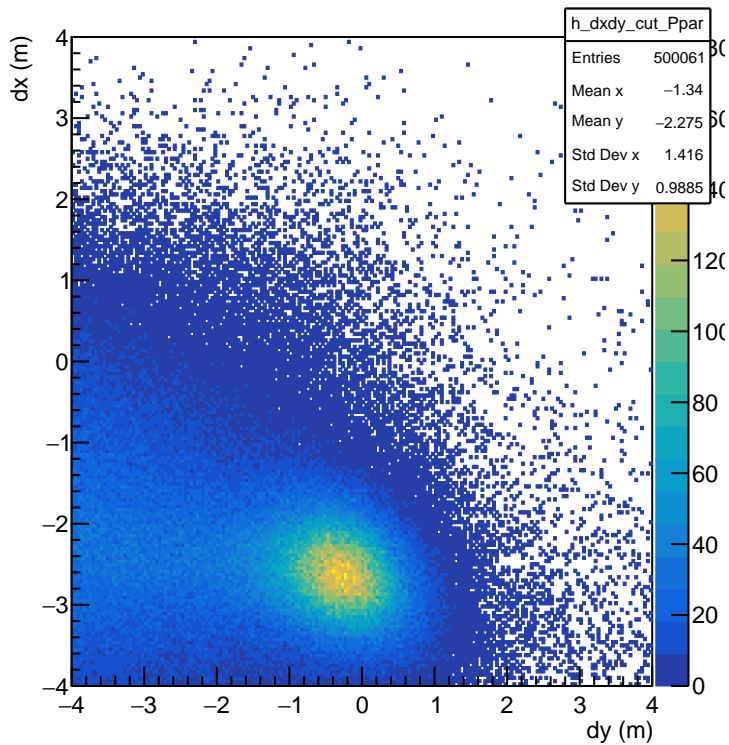
Ppar v theta\_pq only with coin cut



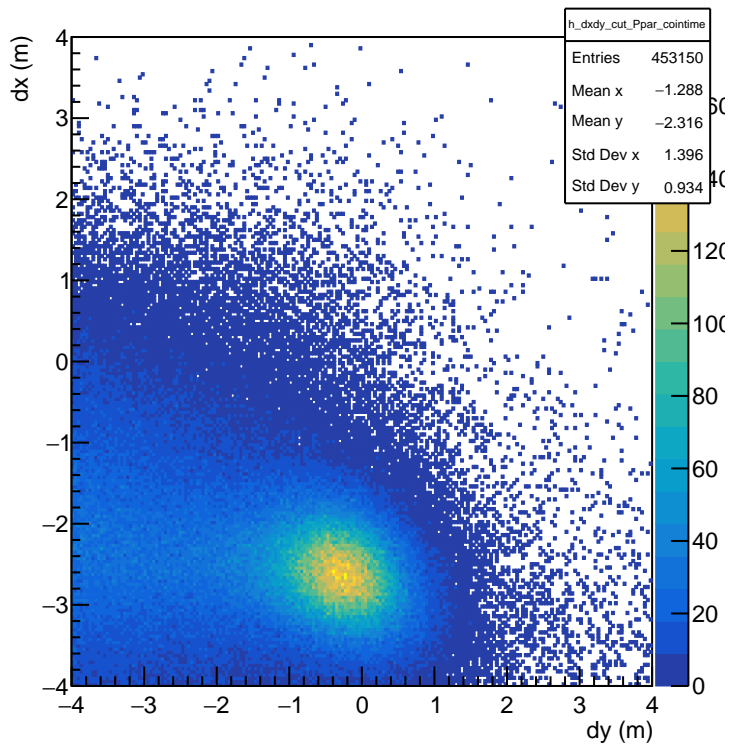
Ppar v theta\_pq with coin, dx and dy cut



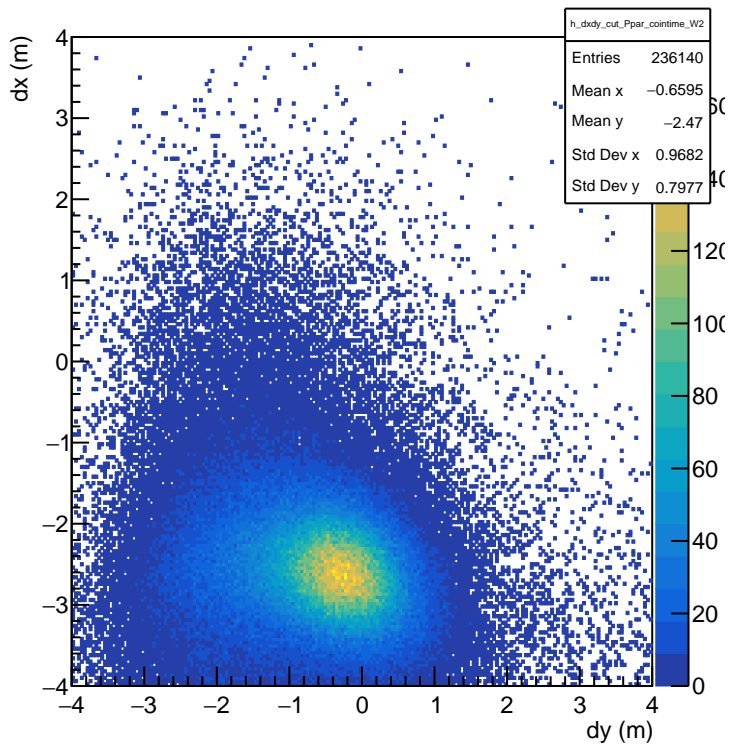
dx dy only with Ppar cut



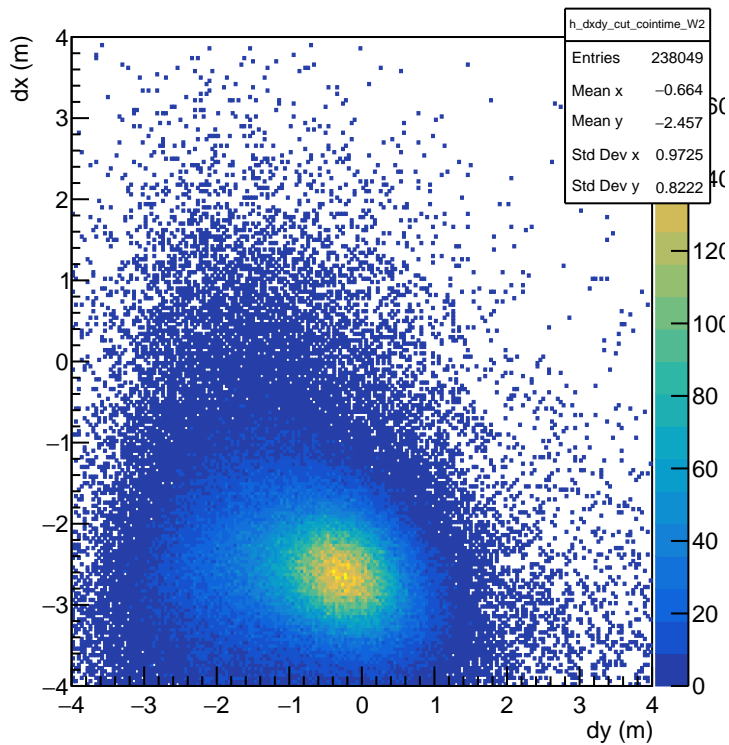
dx dy Ppar and cointime cut



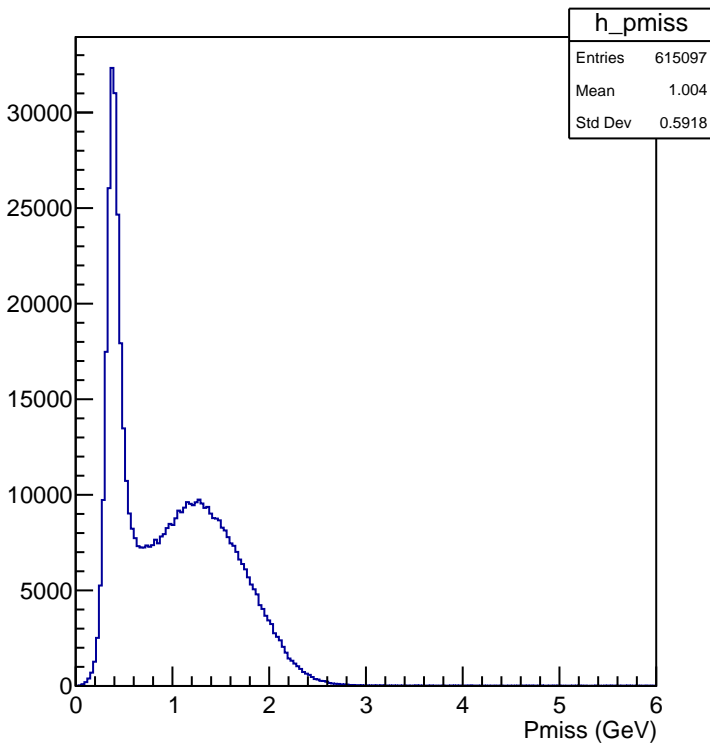
dx dy Ppar, cointime and W2 cut



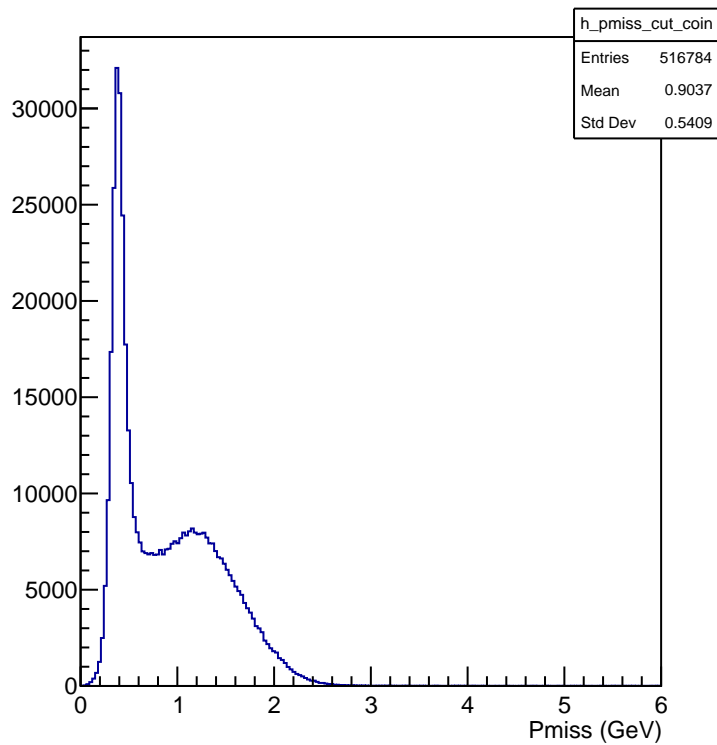
dx dy with cointime and W2 cuts



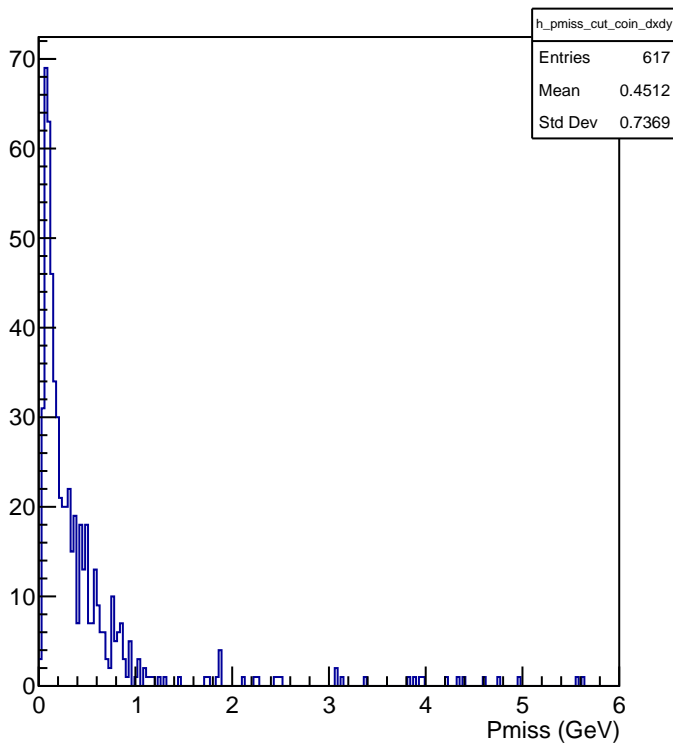
### Pmiss distribution



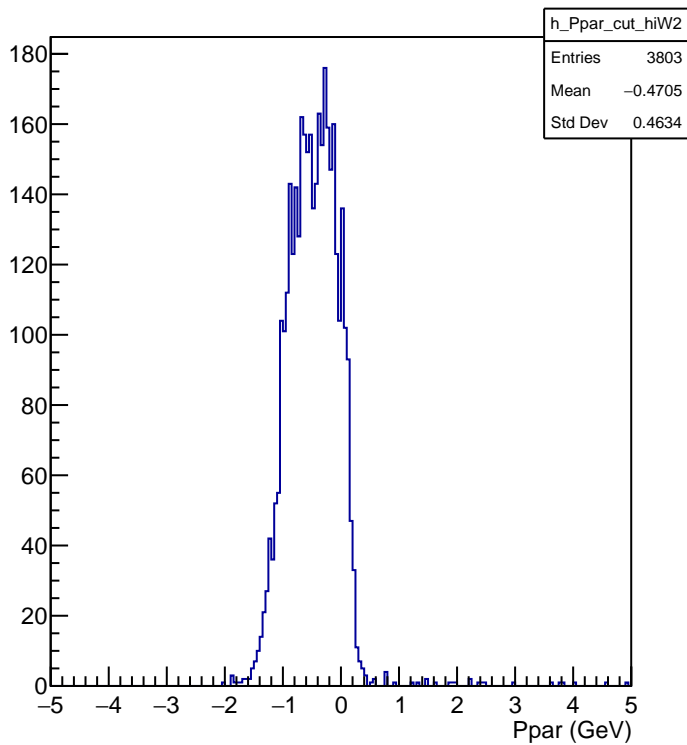
### Pmiss distribution only with cointime cut



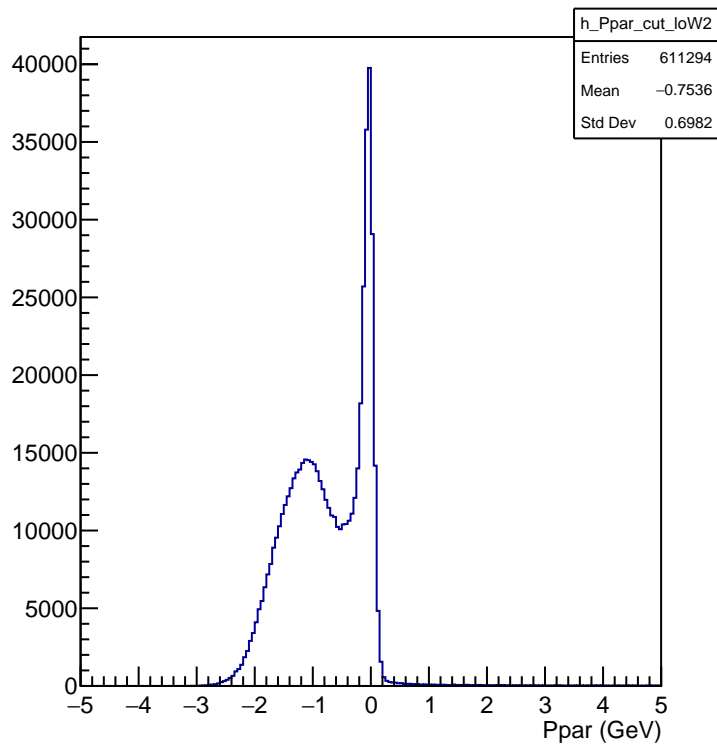
### Pmiss distribution with cointime, dx and dy cuts



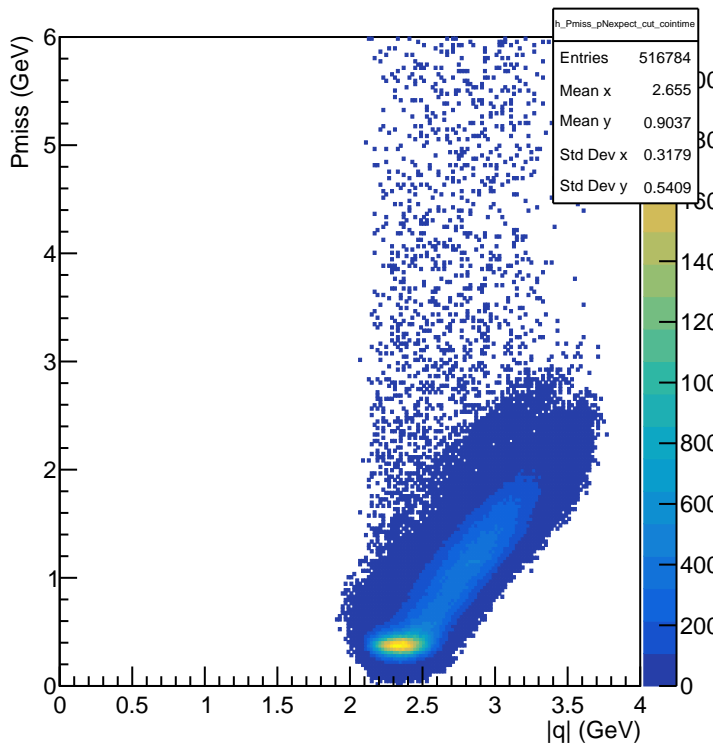
Ppar distribution for  $W2 < 0$



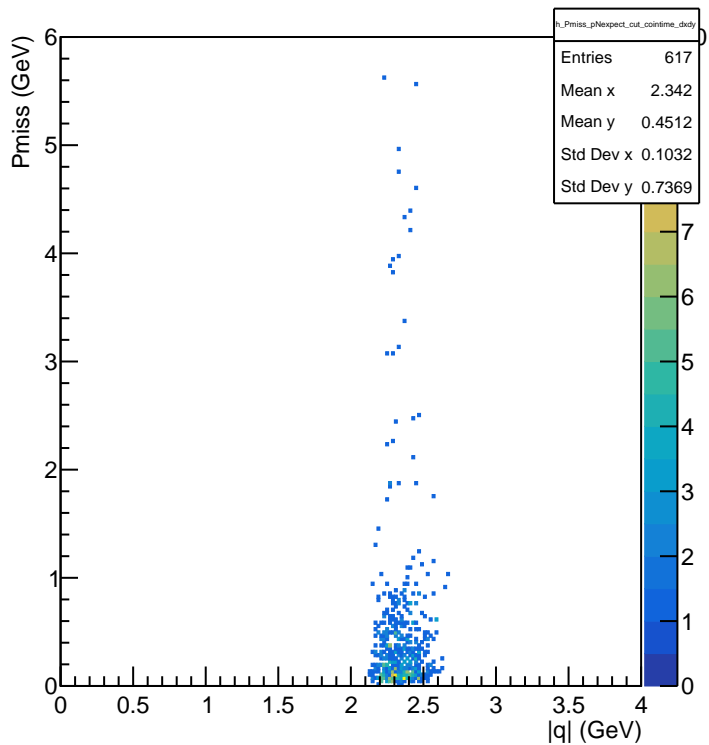
Ppar distribution for  $W2 \geq 0$



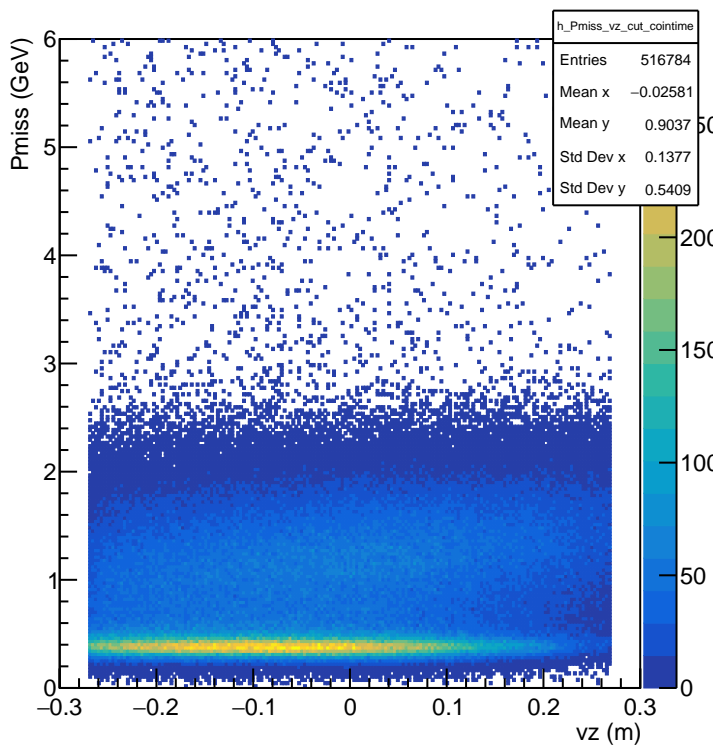
Pmiss v |q| only with coin cut



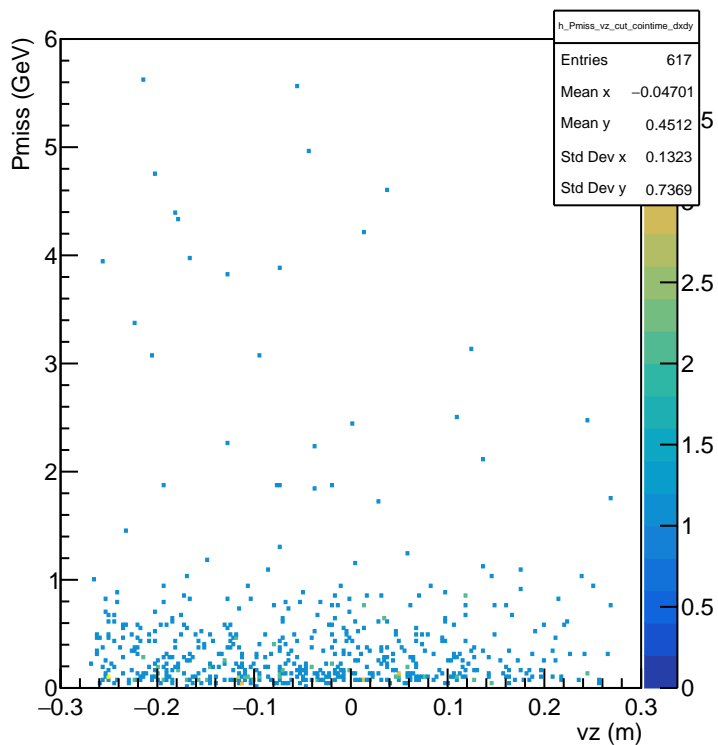
Pmiss v |q| with coin, dx and dy cuts



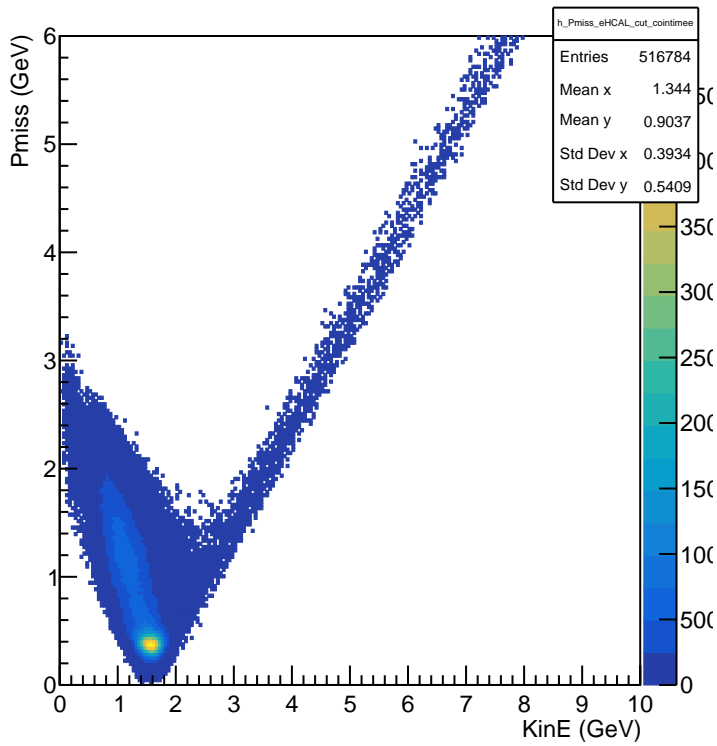
Pmiss v vz only with coin cut



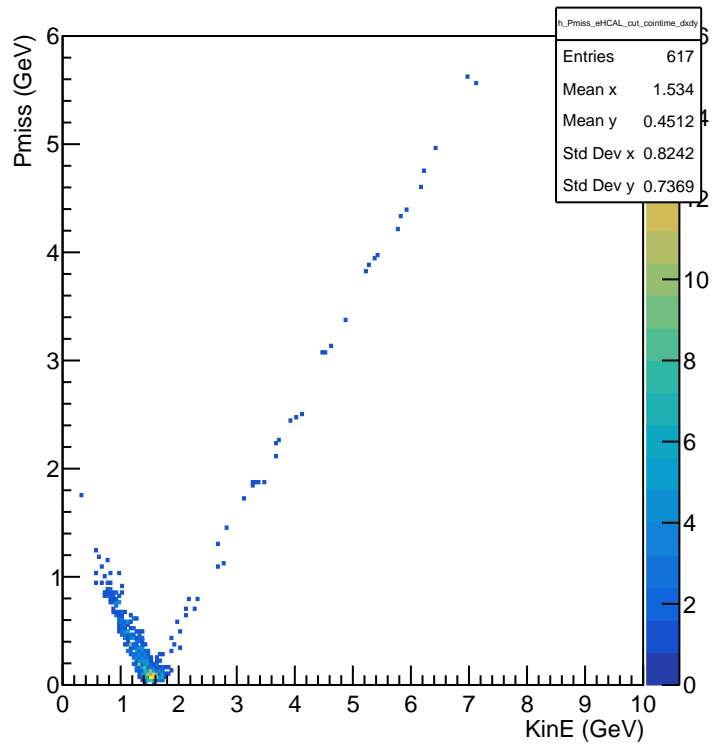
Pmiss v vz with coin, dx and dy cuts



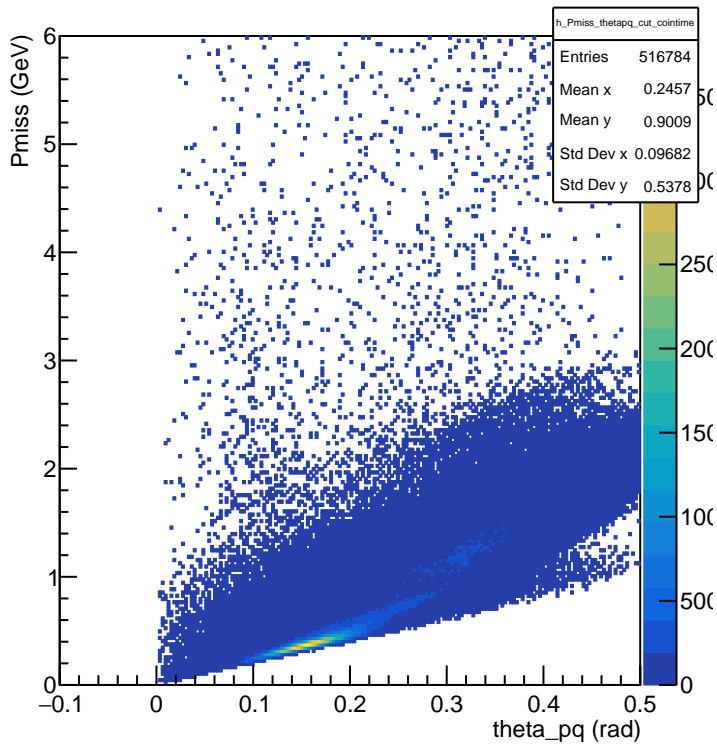
Pmiss v eHCAL (KinE) only with coin cut



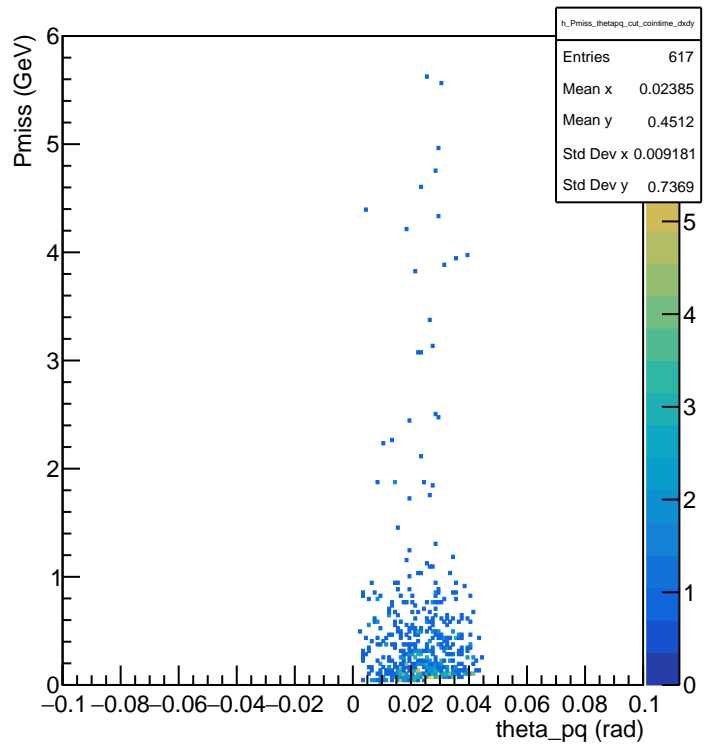
Pmiss v eHCAL (KinE) with coin, dx and dy cuts



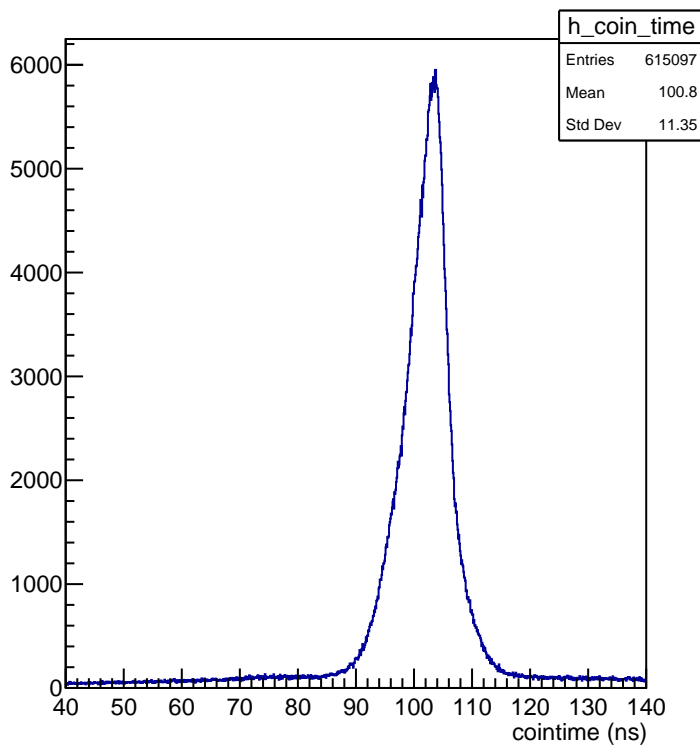
Pmiss v theta\_pq only with coin cut



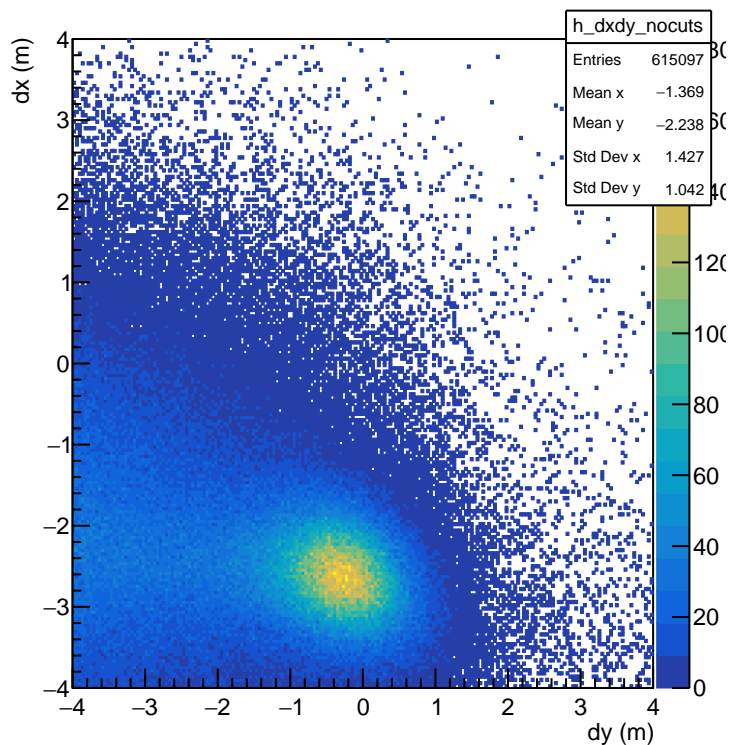
Pmiss v theta\_pq with coin, dx and dy cut



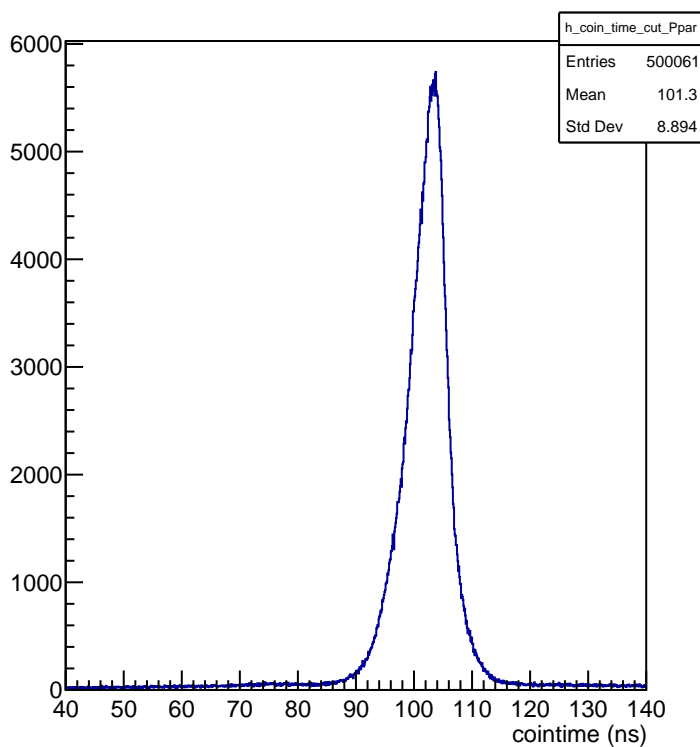
cointime (no cuts)



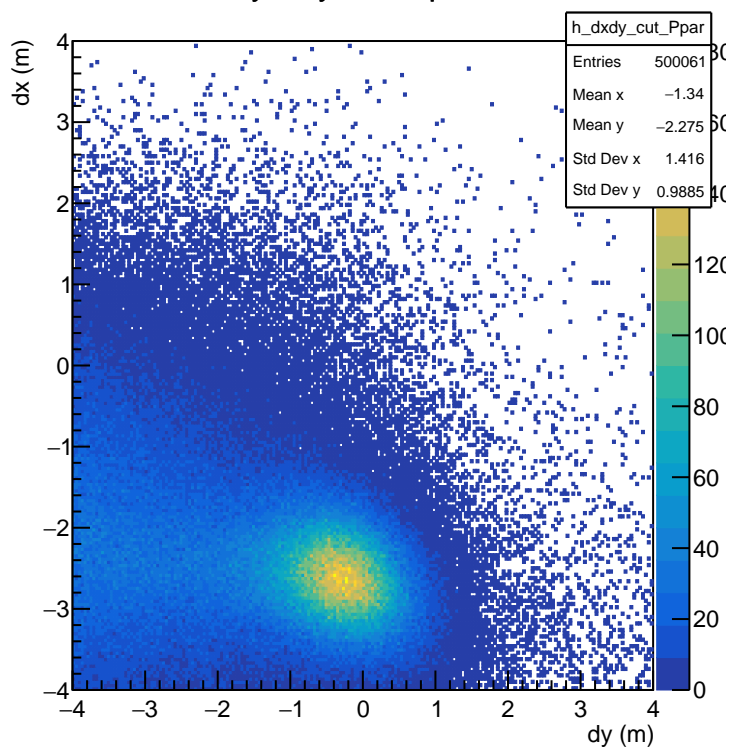
dxdy (no cuts)



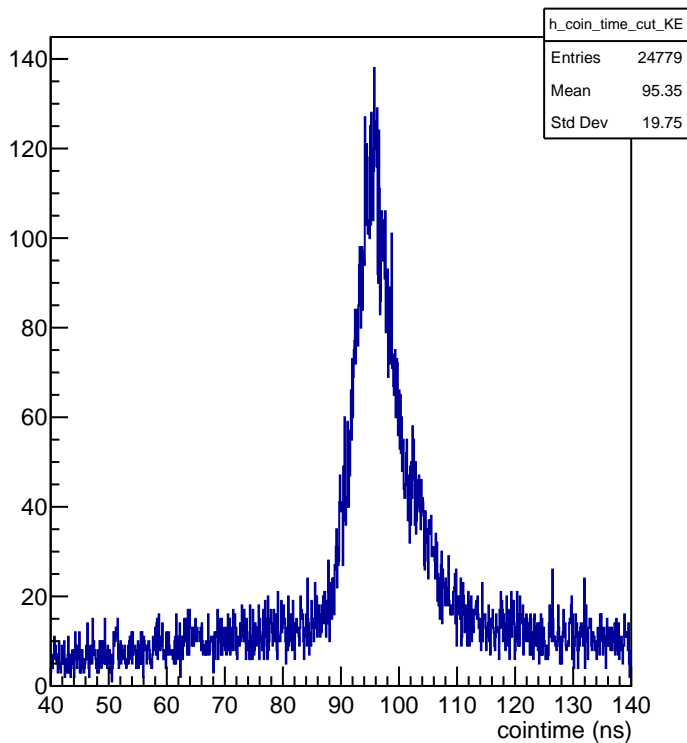
cointime distribution only with Ppar cut



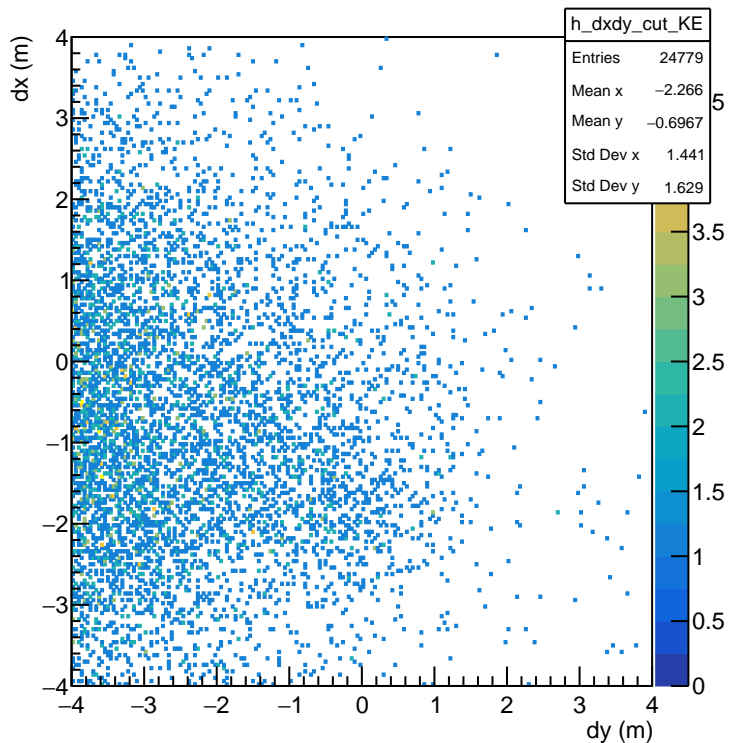
dxdy only with Ppar cut



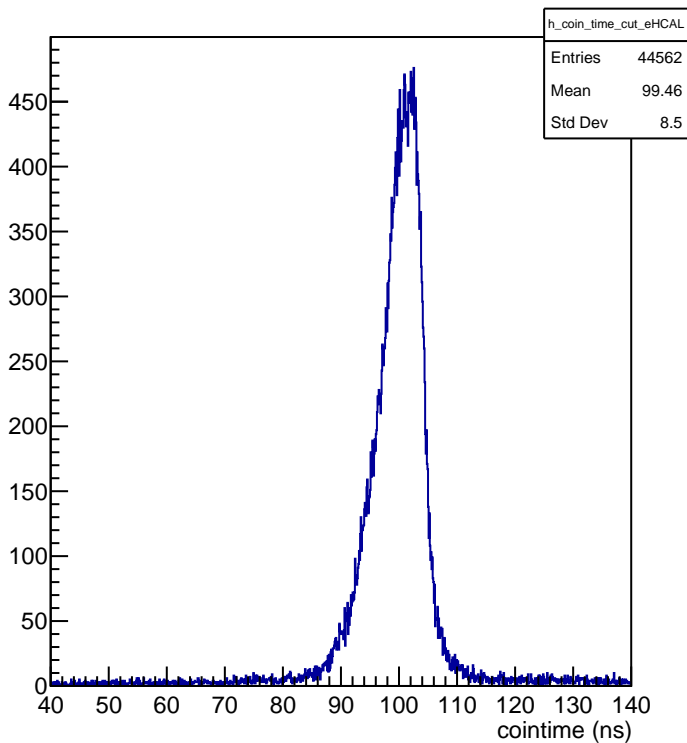
cointime distribution only with KE cut



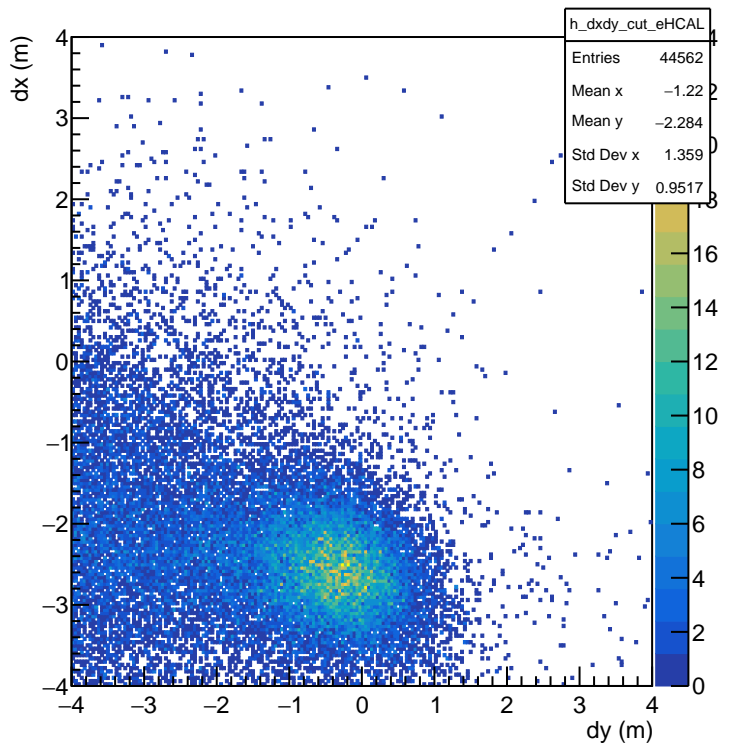
dx dy only with KE cut



cointime distribution only with eHCAL cut

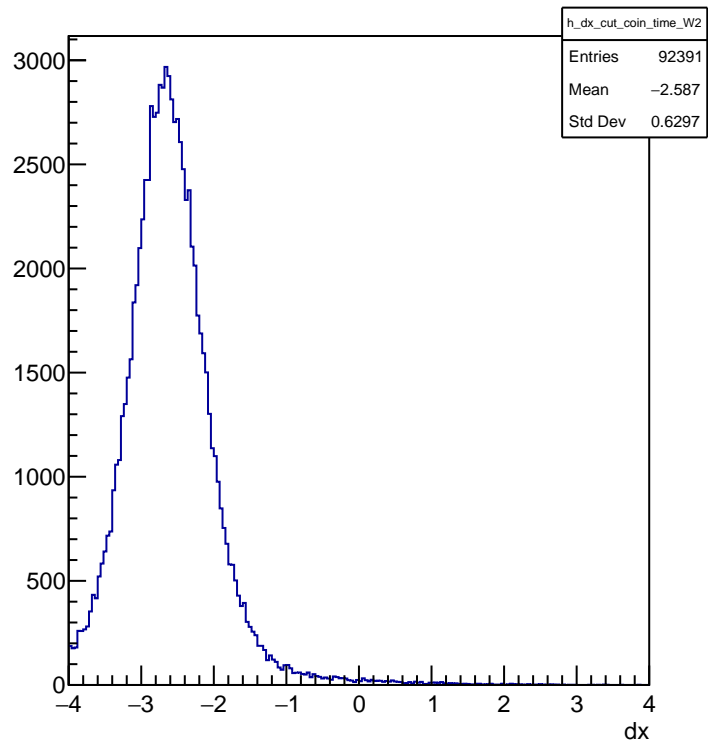


dx dy only with eHCAL cut

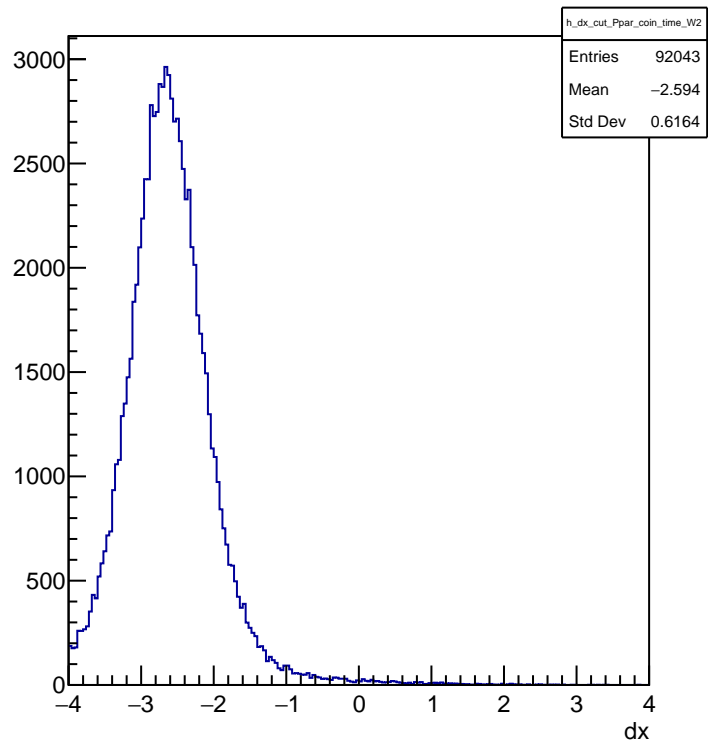




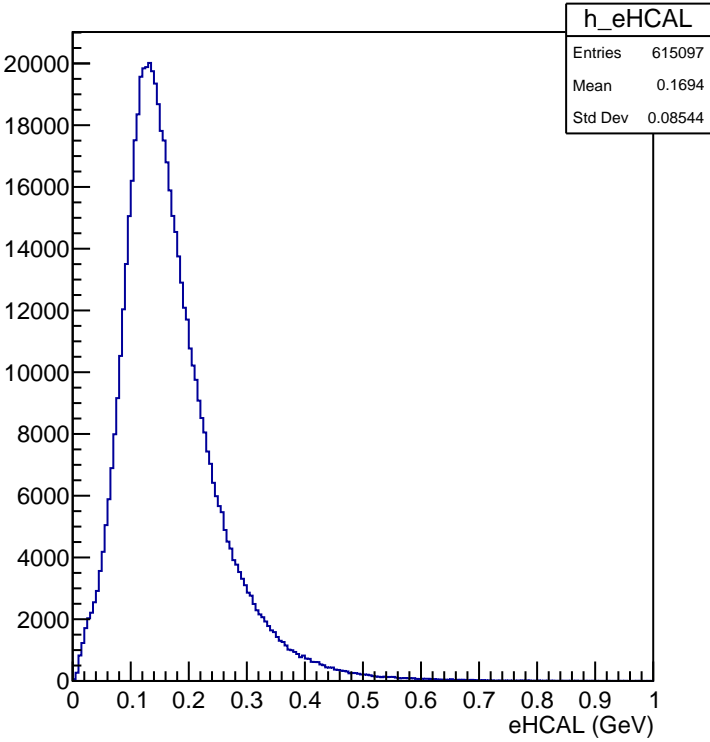
dx with cointime, W2, and dy cuts



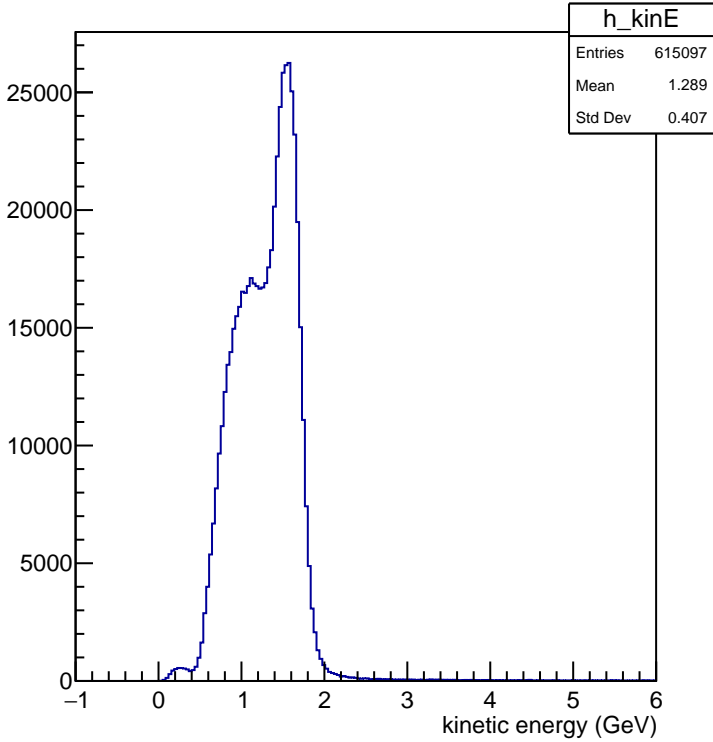
dx with Ppar, cointime, W2, and dy cuts



eHCAL distr



kinetic energy



Ppar vs eHCAL distribution (no cuts)

