

Reading \$ hcana [-l -q -b]....

From Run #2397 [COIN]cidence but Singles run

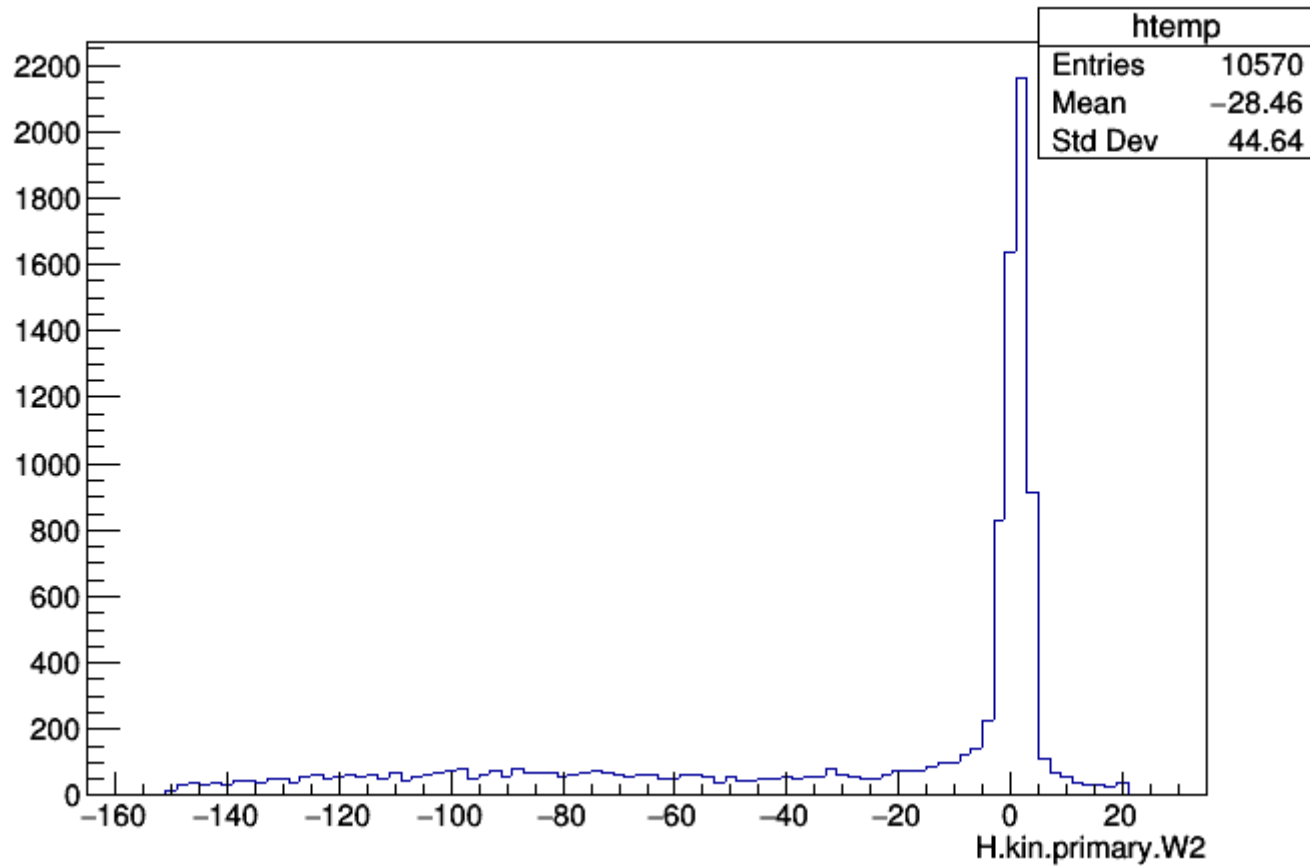
```
hcana [1] T->Scan("H.kin.primary.W")
*****
*      Row      * H.kin.pri *
*****
*          0 *      1e+38 *
*          1 *      1e+38 *
*          2 *      1e+38 *
*          3 *      1e+38 *
*          4 *      1e+38 *
*          5 *      1e+38 *
*          6 *      1e+38 *
*          7 *      1e+38 *
*          8 *      1e+38 *
*          9 *      1e+38 *
```

→ 1e+38 is THc*::KBig which means something went wrong!

```
180  fMp1      = fMp + fQ;
181  fw2      = fMp1.M2();
182  if (fw2>0) fw = TMath::Sqrt(fw2);
183  fScatAngle = fP0.Angle( fP1.Vect() );
184  fEpsilon  = 1.0 / ( 1.0 + 2.0*fQ3mag*fQ3mag/fQ2*
185                  TMath::Power( TMath::Tan(fScatAngle/2.0), 2.0 ));
186  fScatAngle_deg = fScatAngle*TMath::RadToDeg();
187  fThetaQ    = fQ.Theta();
```

Then, there must be something wrong with W^2...

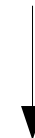
H.kin.primary.W2 {TMath::Abs(H.kin.primary.W2)<150}



Wait... $W^2 < 0$?



As $W^2(..Q^2..)$ then...
there must be something
wrong with Q^2

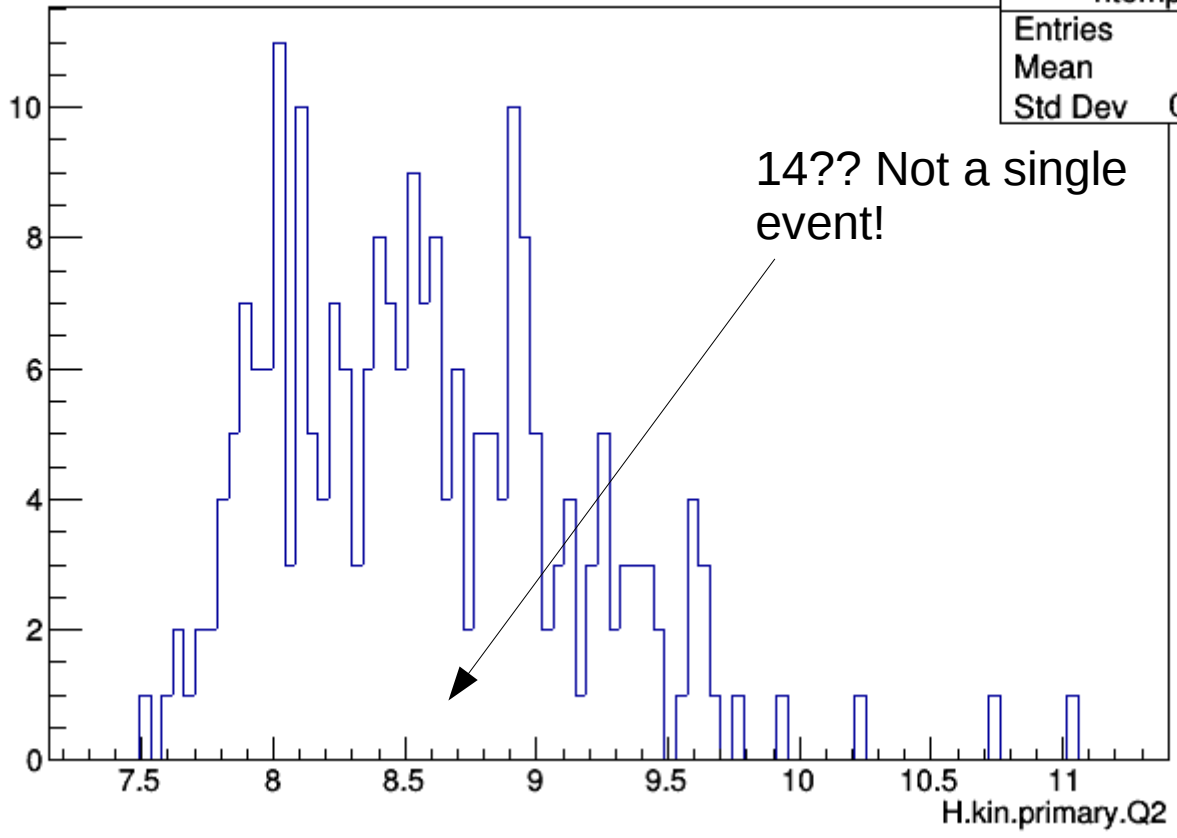


Getting Q^2 by hand...
from information of
standard.kinematics file
Run #2397 $\rightarrow Q^2 \sim 14.28$

BUT....

H.kin.primary.Q2 (H.cer.npeSum > 1. && H.cal.etracknorm >.5 && TMath::Abs(H.gtr.dp) < 8)

htemp	
Entries	231
Mean	8.579
Std Dev	0.5734



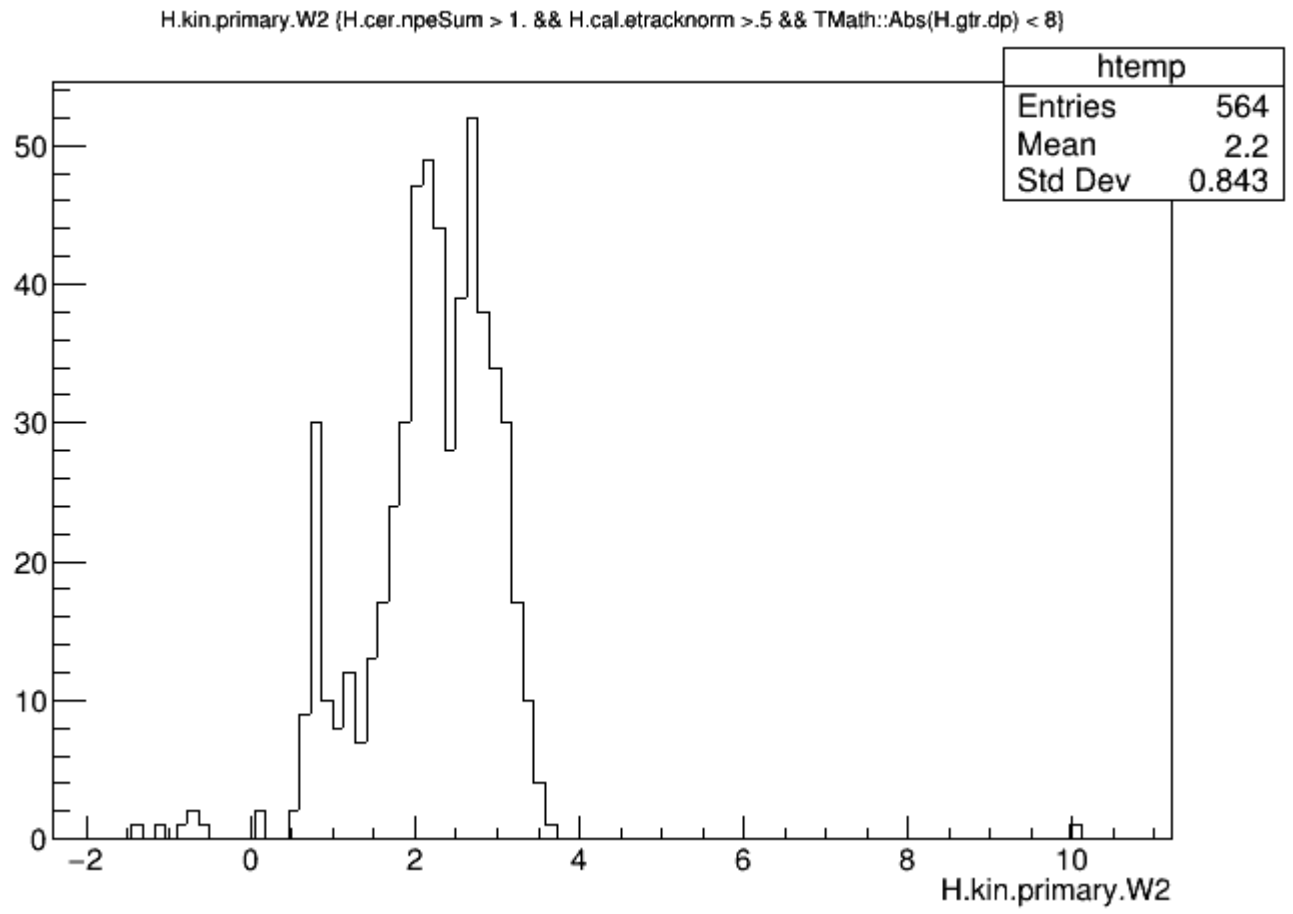
14?? Not a single event!

Maybe, there is something wrong with standard.kinematics or replay scripts are doing not doing it right...



Then... Let's check another run...

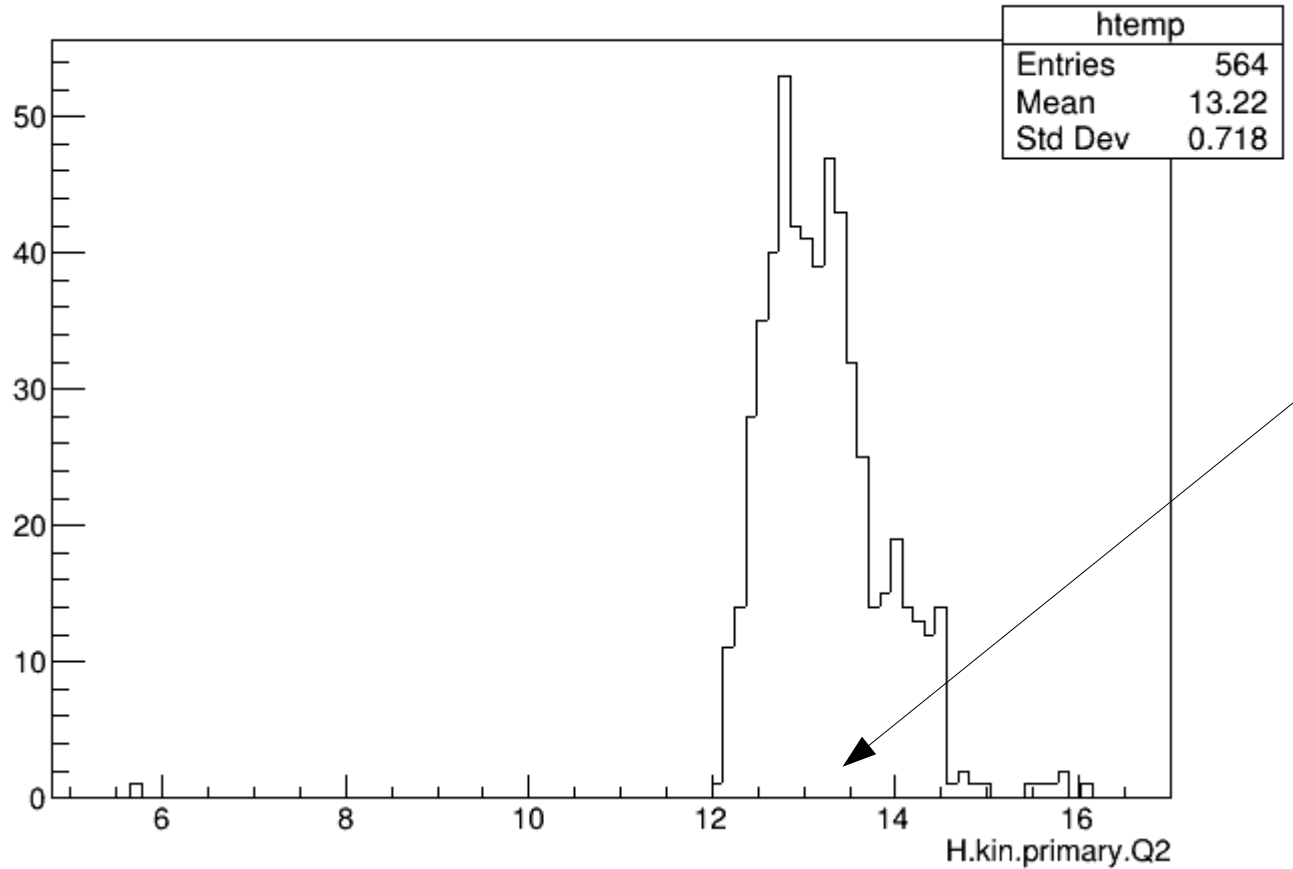
Run #2404 [COIN]cidence but singles run.. Kinematics are the same (as given by standard.kinematics)



W² looks better.
Isn't it?

By hand Q² ~ 14.28

H.kin.primary.Q2 (H.cer.npeSum > 1. && H.cal.etracknorm >.5 && TMath::Abs(H.gr.dp) < 8)



Still not ~14... but better than before...

Still learning from data that have been taking... From this... We have to make sure that standard.kinematics is updated correctly by the shift crew!