August 23 Meeting
Quick Status Update

Andrew Schick

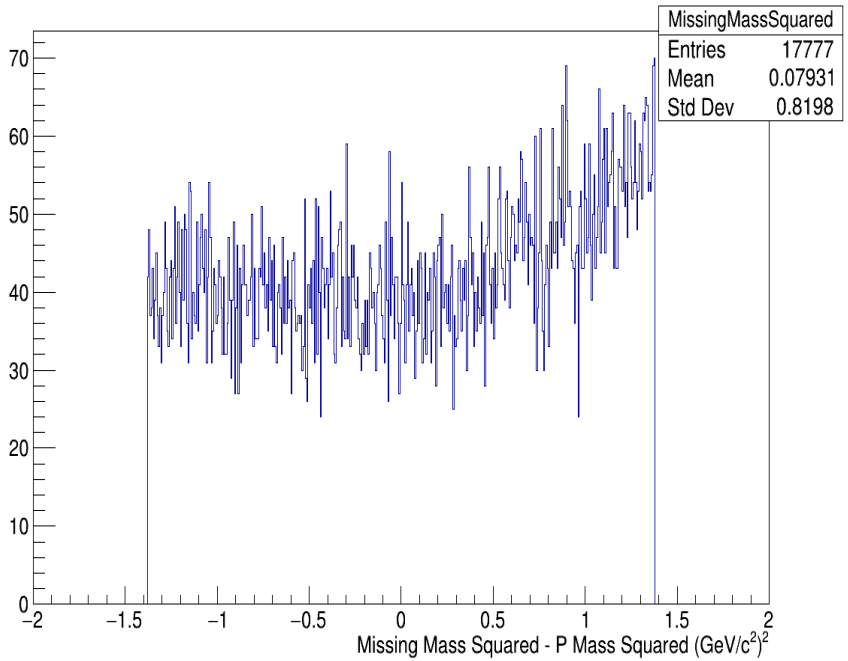
Status Update

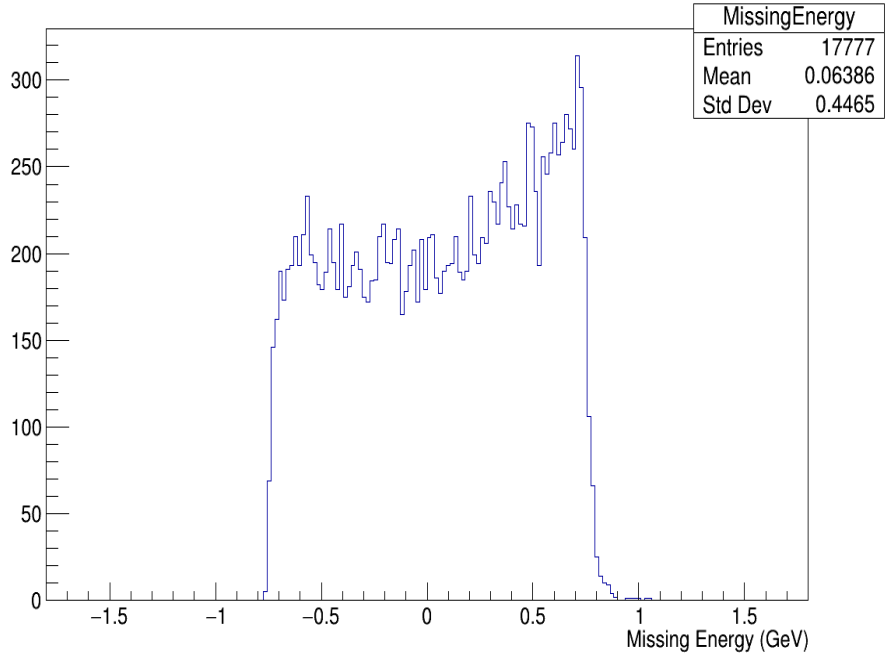
- Analysis of run data on hold
- Full effort is being applied to MC

IN Progress:

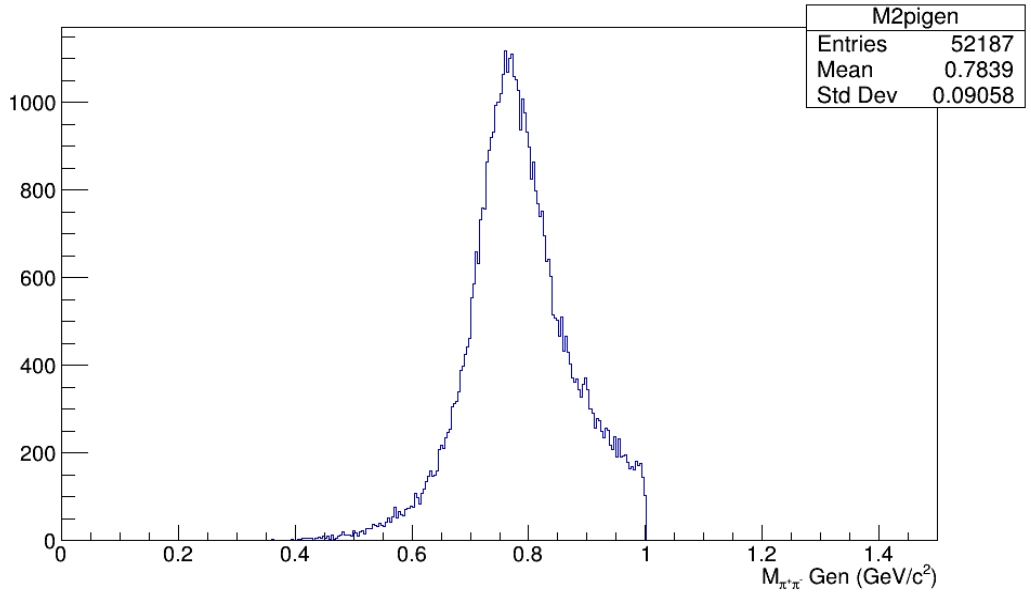
- Including the FCAL and BCAL trig requirements into simulation
- Adding to my list of histograms the fractional variation: (thrown - fit)/thrown

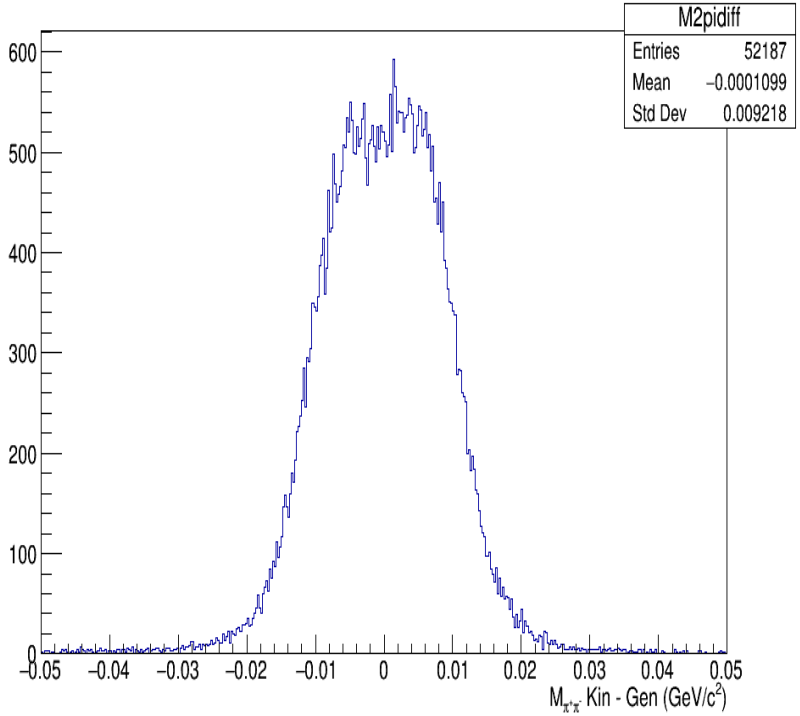
- Running muon or electron generated 4 vectors through pion hypothesis gives strange missing mass/energy results
- Building DSelector for $\Upsilon p \rightarrow \mu^+\mu^-(p)$ and $\Upsilon p \rightarrow e^+e^-(p)$ hypotheses.

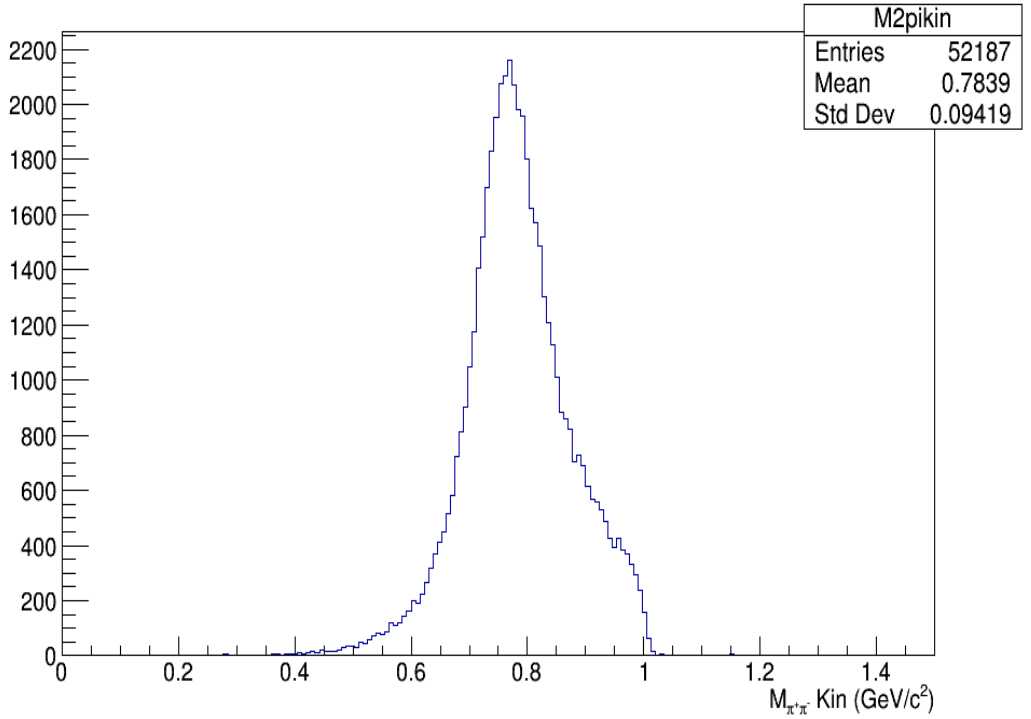


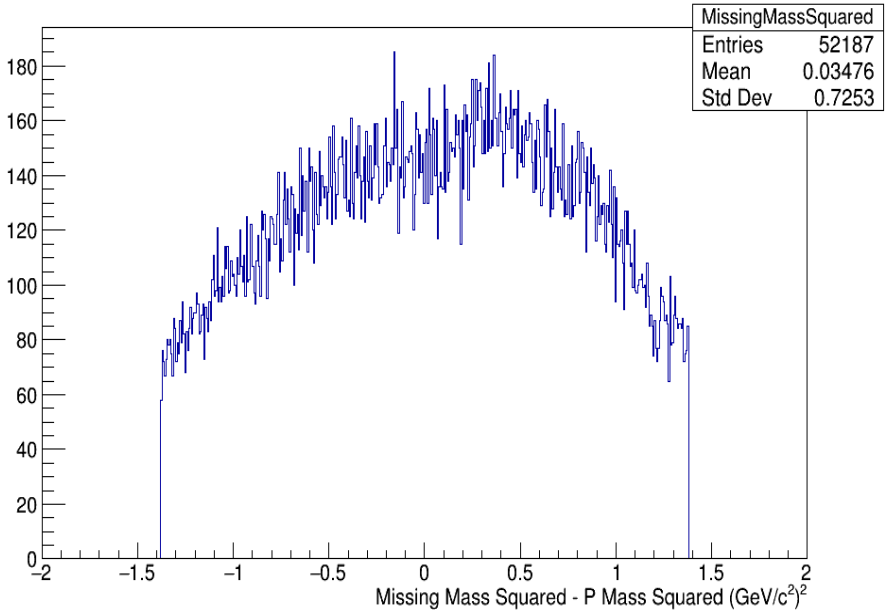


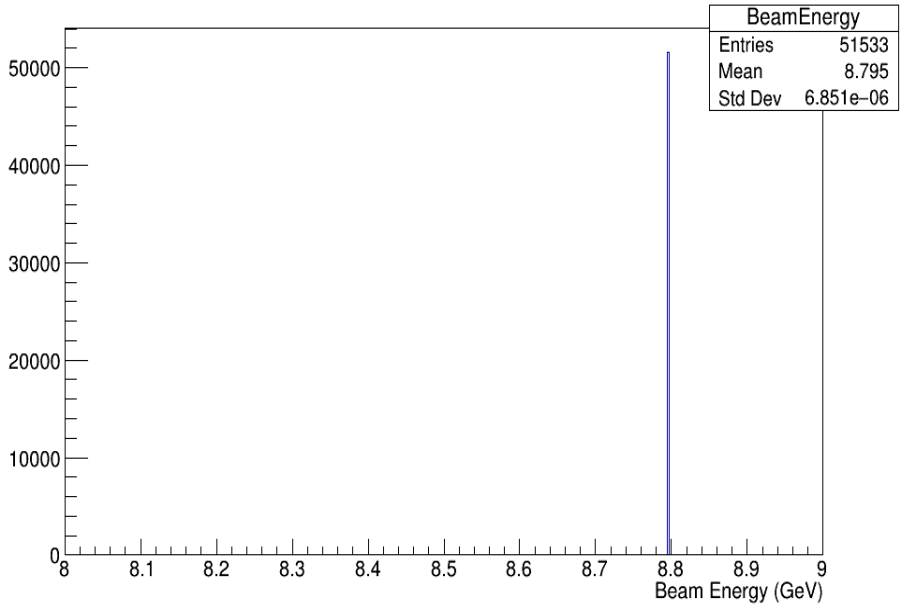
PION MC


M2pigen
Entries 52187
Mean 0.7839
Std Dev 0.09058
$M_{\pi^+\pi^-}$ Gen (GeV/c^2)

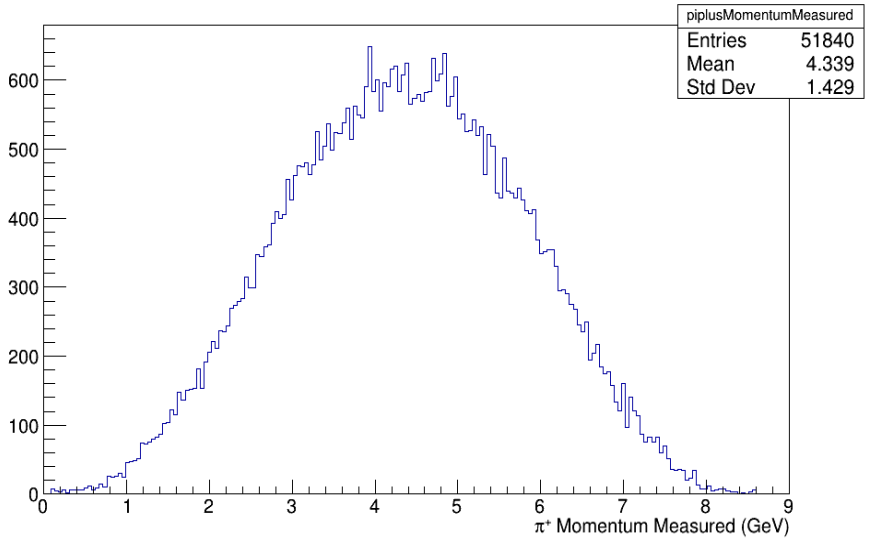

M2pidiff
Entries 52187
Mean −0.0001099
Std Dev 0.009218
$M_{\pi^+\pi^-}$ Kin - Gen (GeV/c^2)

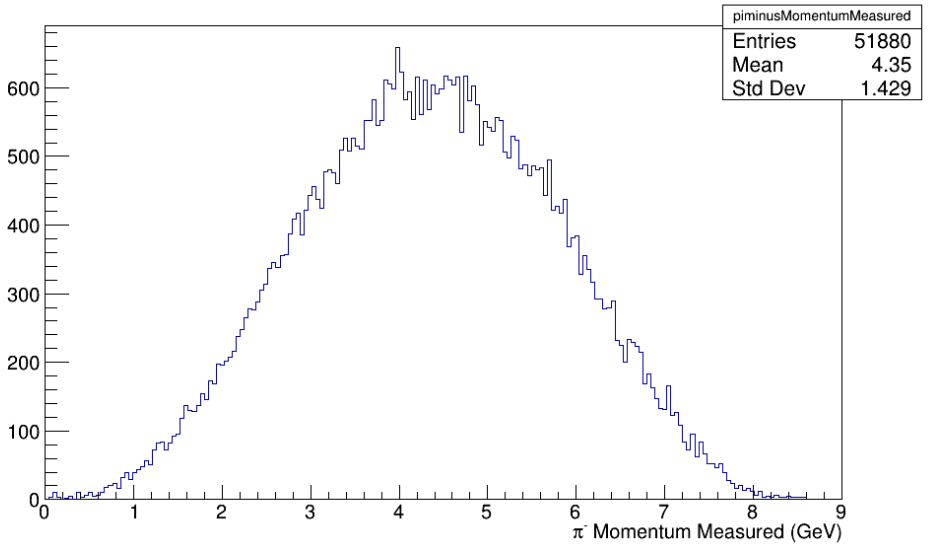

M2pikin
Entries 52187
Mean 0.7839
Std Dev 0.09419
$M_{\pi^+\pi^-}$ Kin (GeV/c^2)

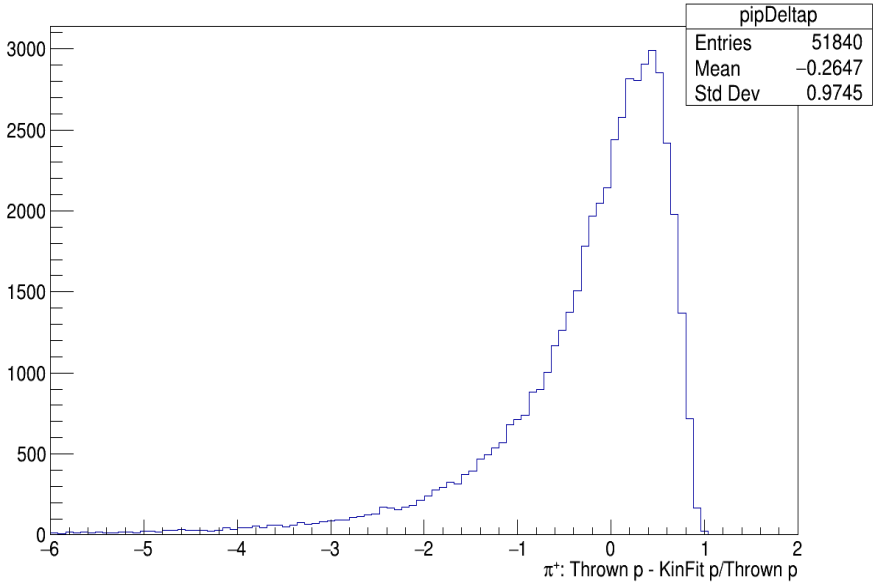


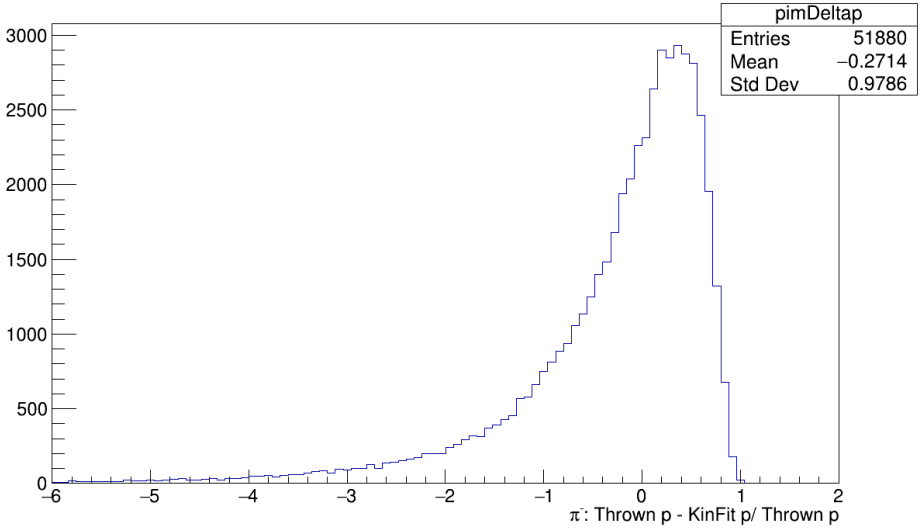


Wide spread in missing mass is *not* due to spread in beam energy.

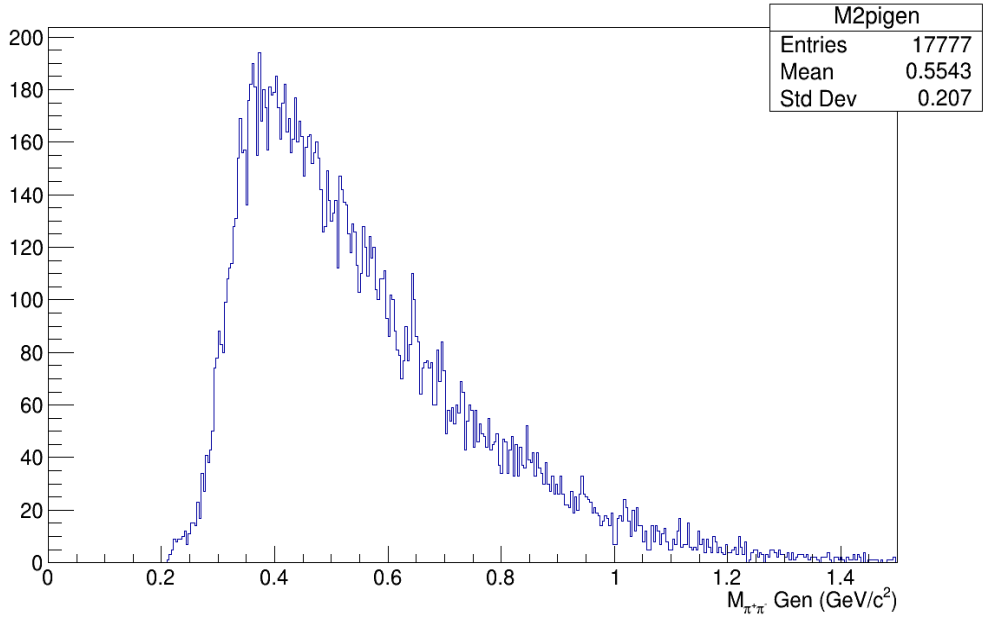

piplusMomentumMeasured
Entries 51840
Mean 4.339
Std Dev 1.429
π⁺ Momentum Measured (GeV)

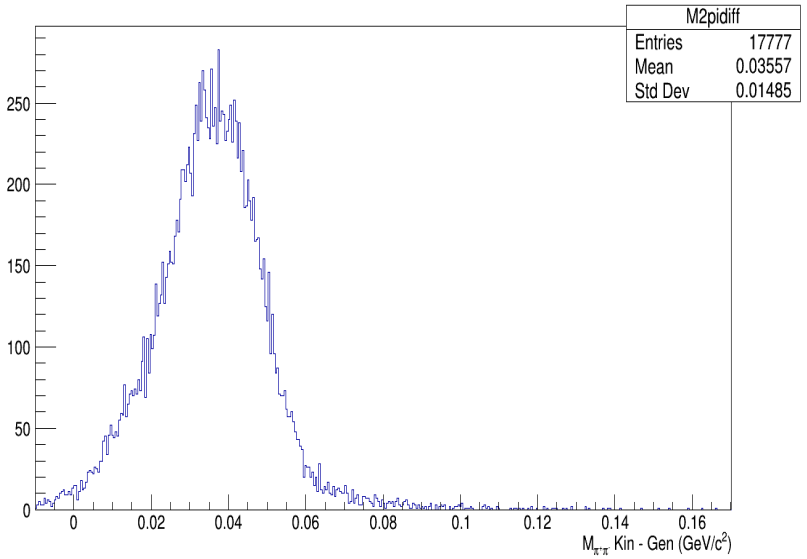

piminusMomentumMeasured
Entries 51880
Mean 4.35
Std Dev 1.429
π⁻ Momentum Measured (GeV)


pipDeltap
Entries 51840
Mean −0.2647
Std Dev 0.9745
π⁺: Thrown p - KinFit p/Thrown p

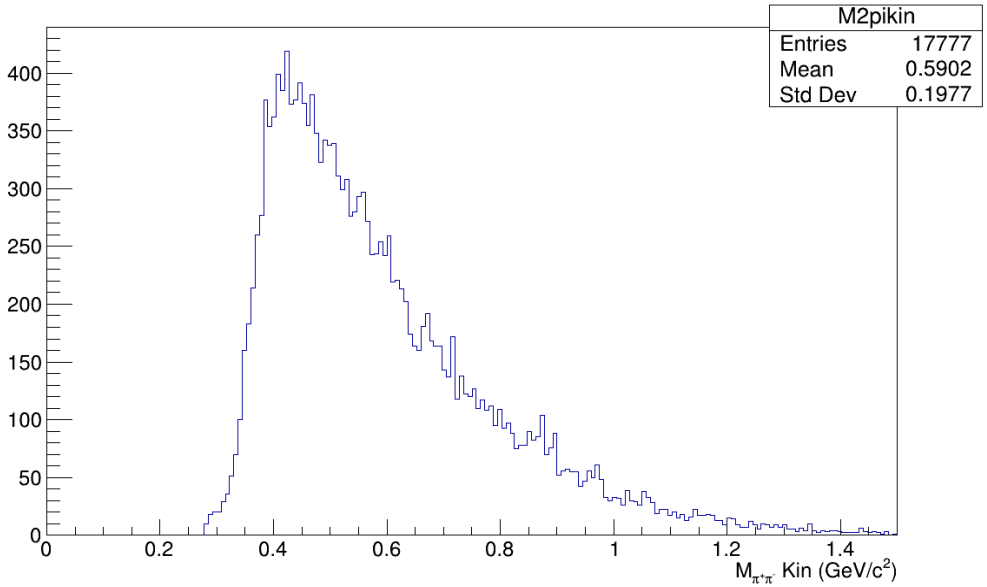

pimDeltap
Entries 51880
Mean −0.2714
Std Dev 0.9786
π⁻: Thrown p - KinFit p/ Thrown p

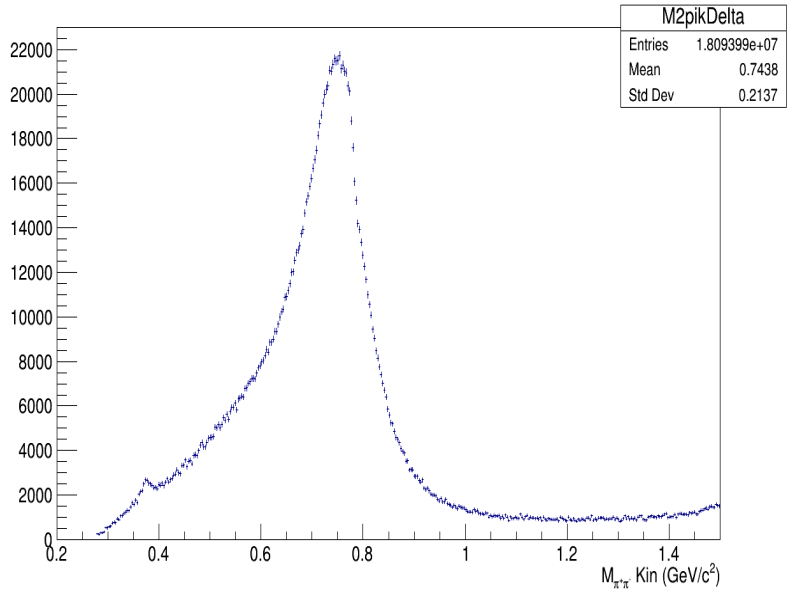
Muon MC

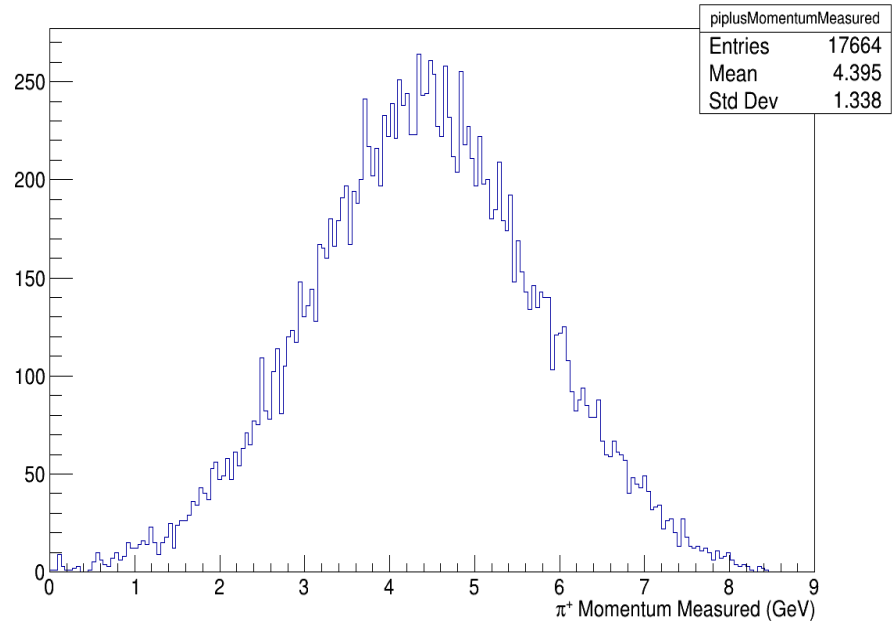


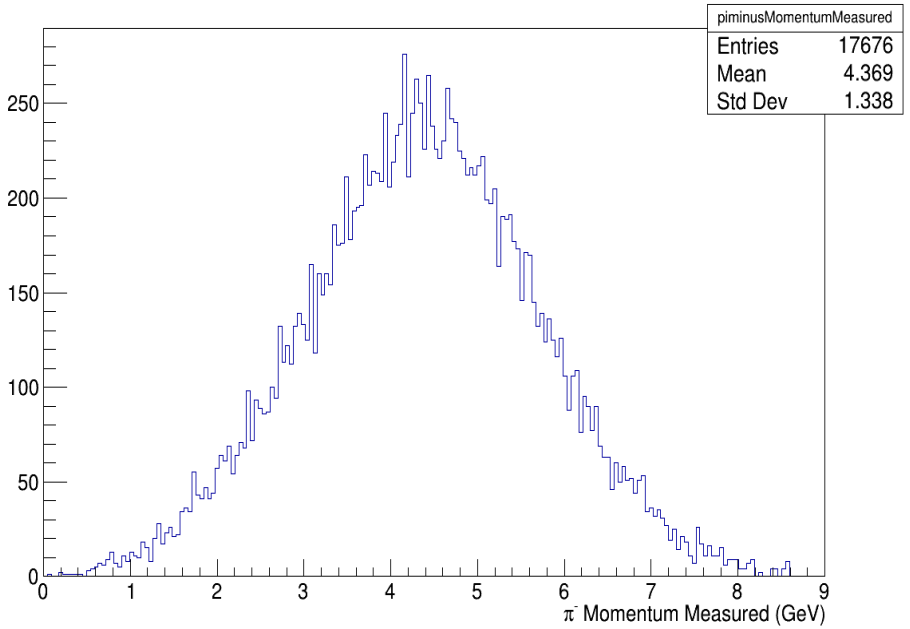


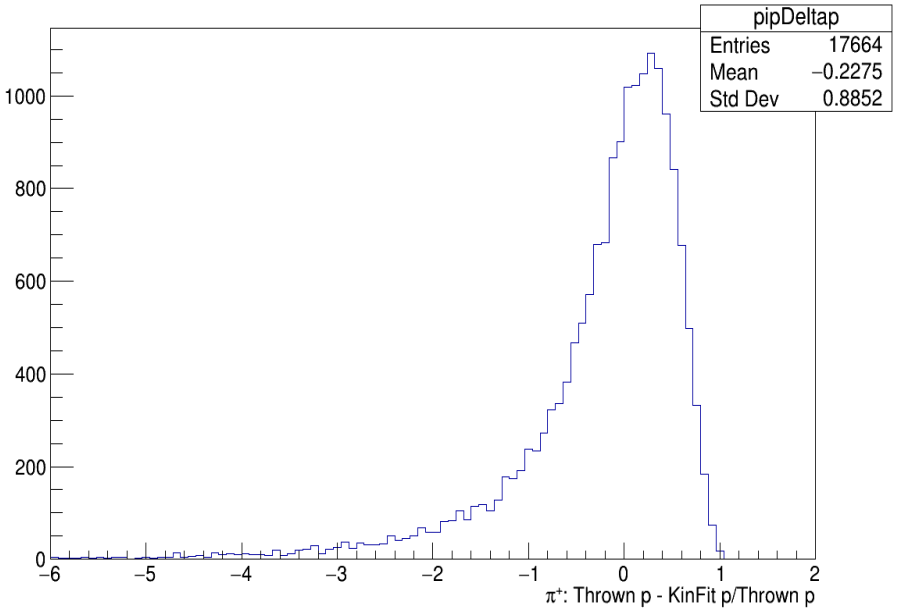
What we're trying to explain

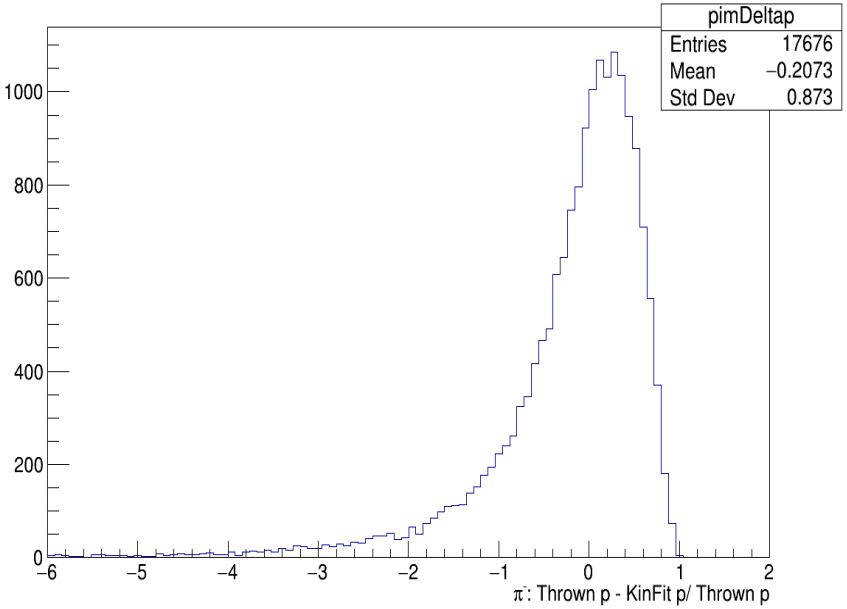





piplusMomentumMeasured
Entries 17664
Mean 4.395
Std Dev 1.338
π⁺ Momentum Measured (GeV)


piminusMomentumMeasured
Entries 17676
Mean 4.369
Std Dev 1.338
π⁻ Momentum Measured (GeV)


pipDeltap
Entries 17664
Mean −0.2275
Std Dev 0.8852
π⁺: Thrown p - KinFit p/Thrown p


pimDeltap
Entries 17676
Mean −0.2073
Std Dev 0.873
π⁻: Thrown p - KinFit p/ Thrown p