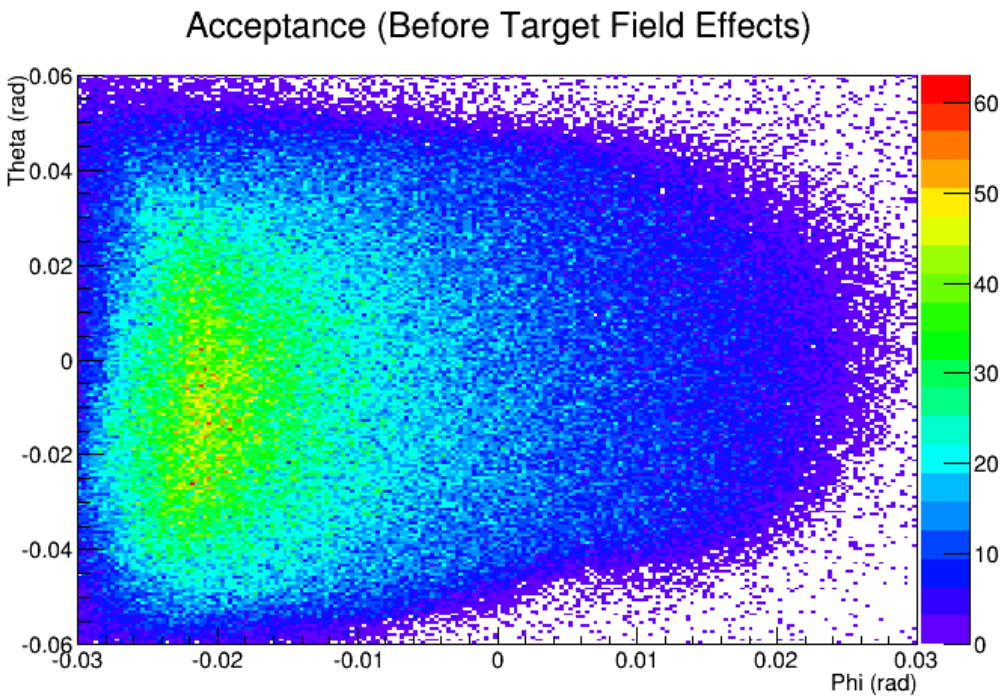
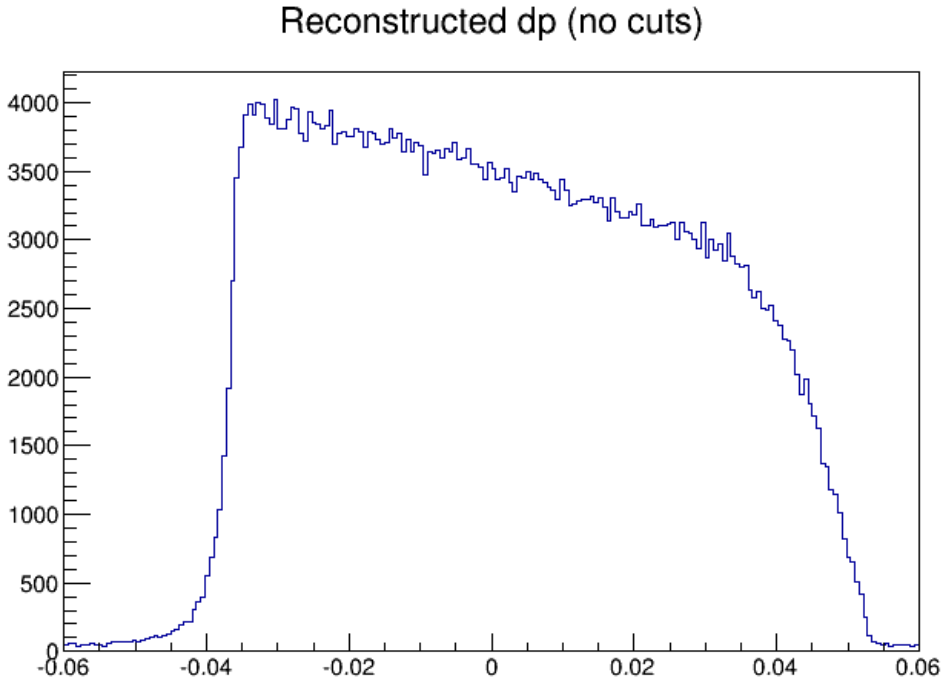
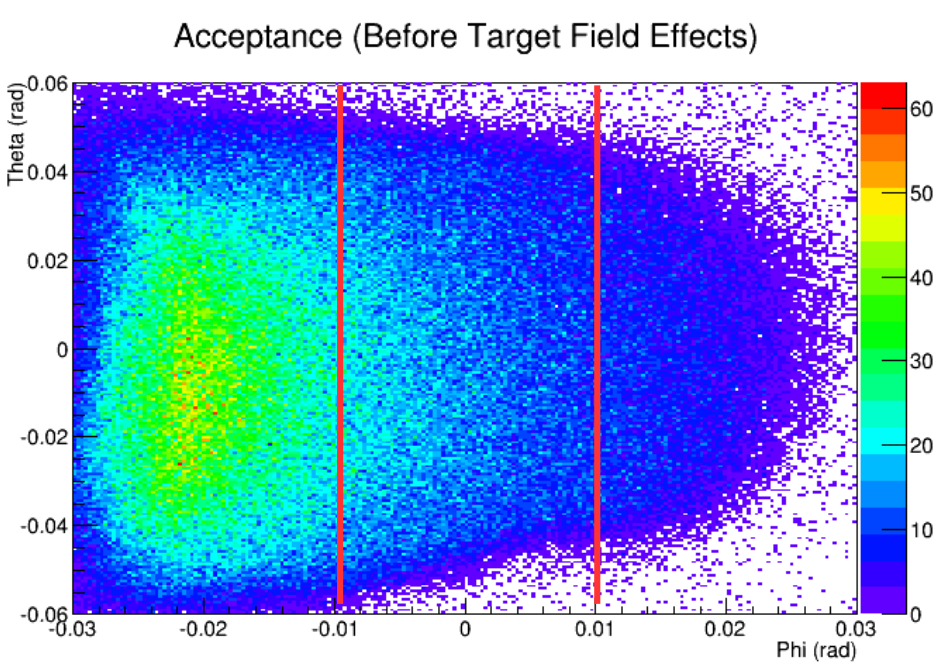
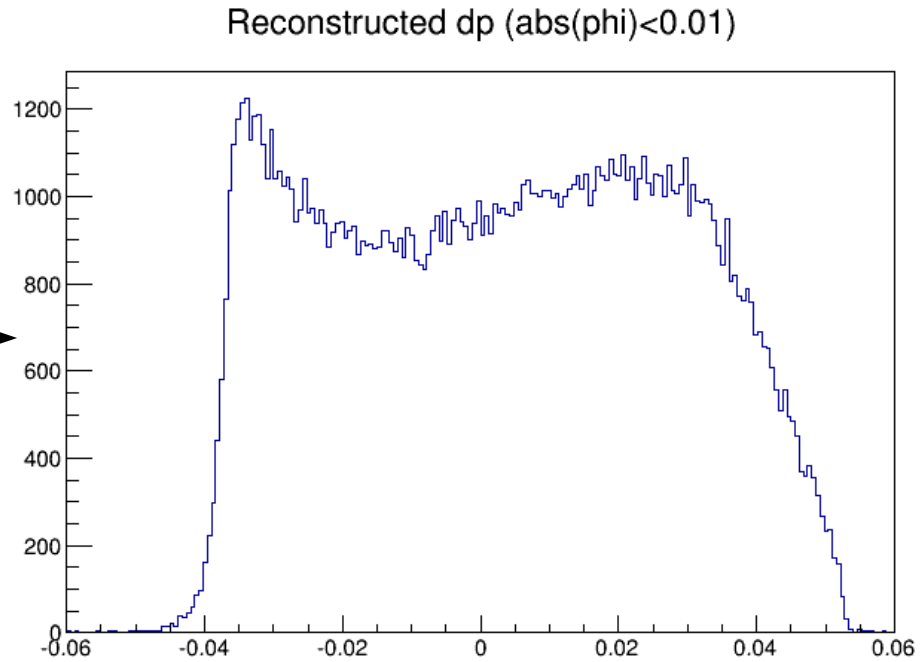
A look at the updated optics reconstruction

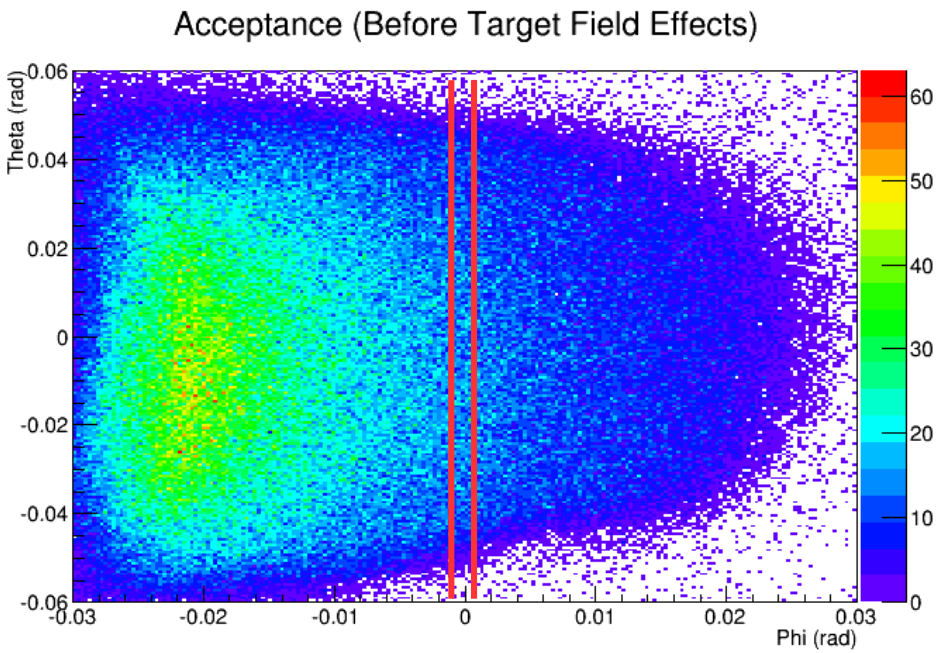


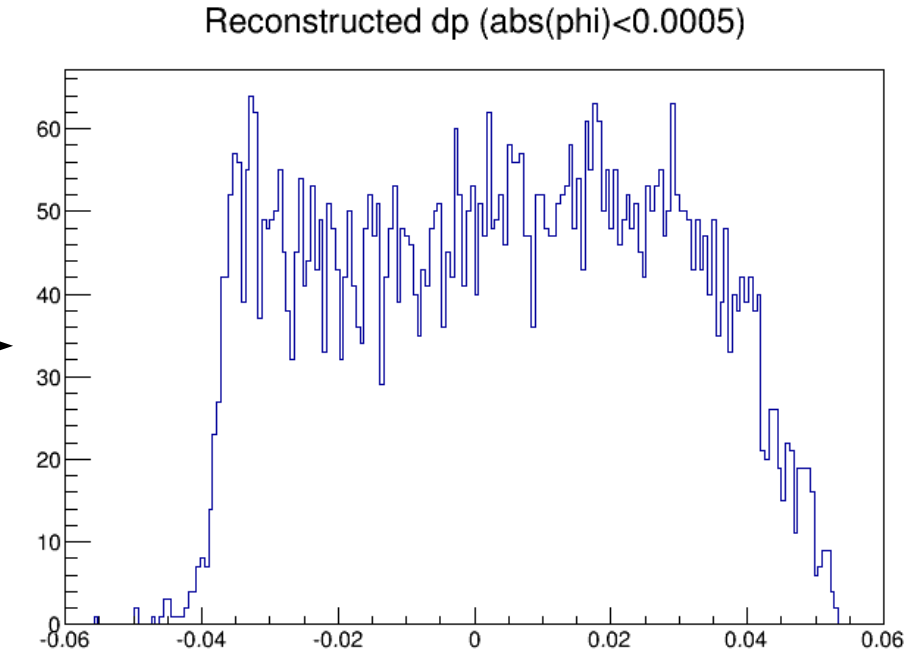


- Data shown is for run 5899 (2.254GeV 5T long., empty dilution, p0=991 MeV.
- At first glance acceptance and dp spectrum look okay.
- Next step: perform cut on phi to remove acceptance and scattering angle effects.

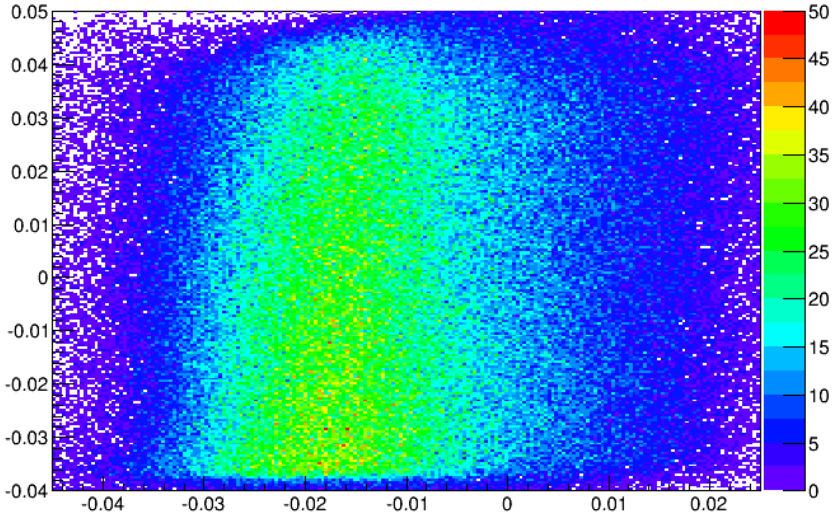

Acceptance (Before Target Field Effects)
Theta (rad)
Phi (rad)


Reconstructed dp (abs(phi)<0.01)

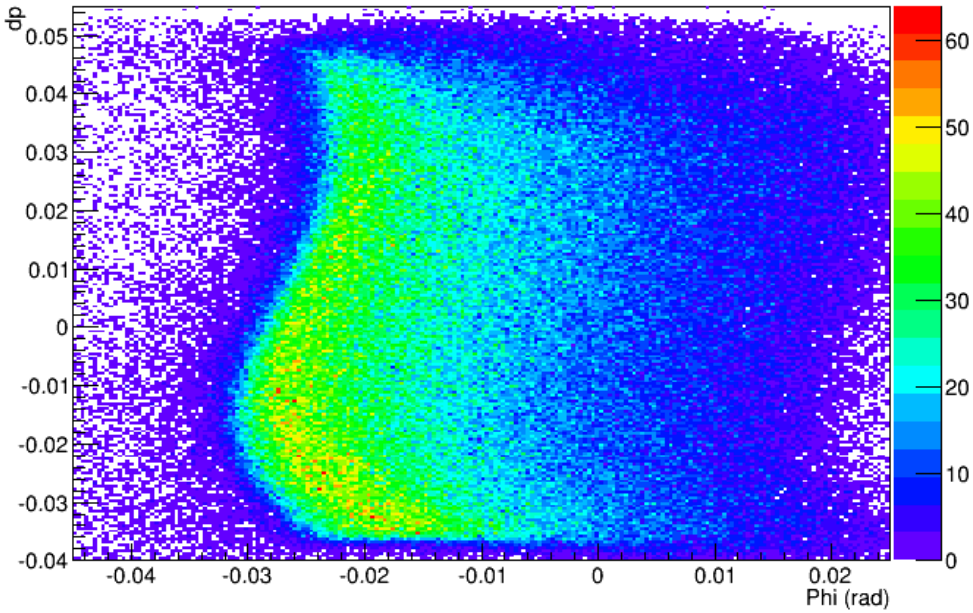

Acceptance (Before Target Field Effects)
Theta (rad)
Phi (rad)


Reconstructed dp (abs(phi)<0.0005)

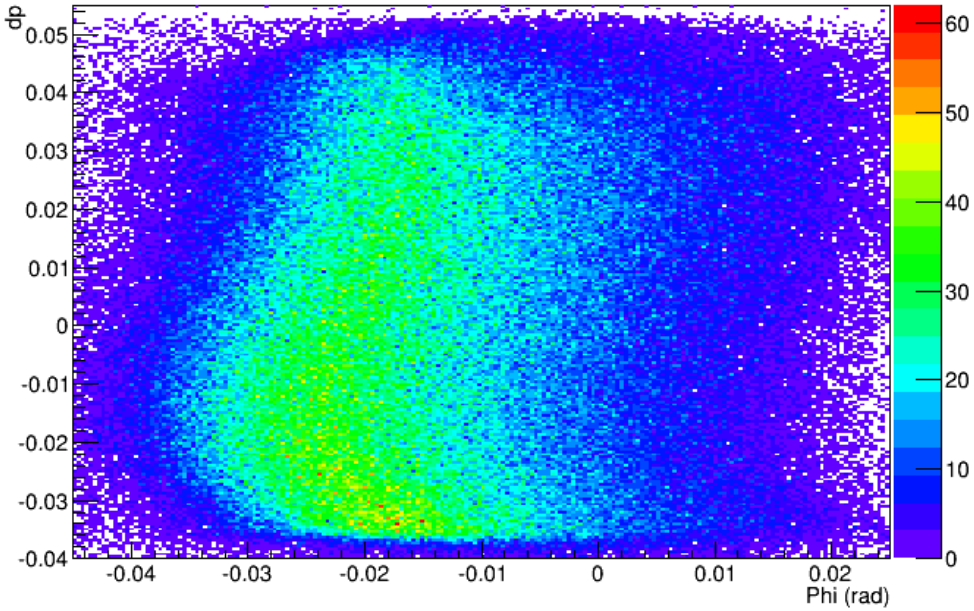
- Top right plot shows dp vs phi for run 5899 before accounting for target field effects.
- dp is not constant for any given phi value (maybe shouldn't be perfectly constant, but definitely shouldn't have the structure we're seeing).
- Bottom right plot shows dp vs phi reconstructed back to the target.
- Same structure is still present, so not caused by target field.
- Below is dp vs reconstructed phi using the old db (for reference).

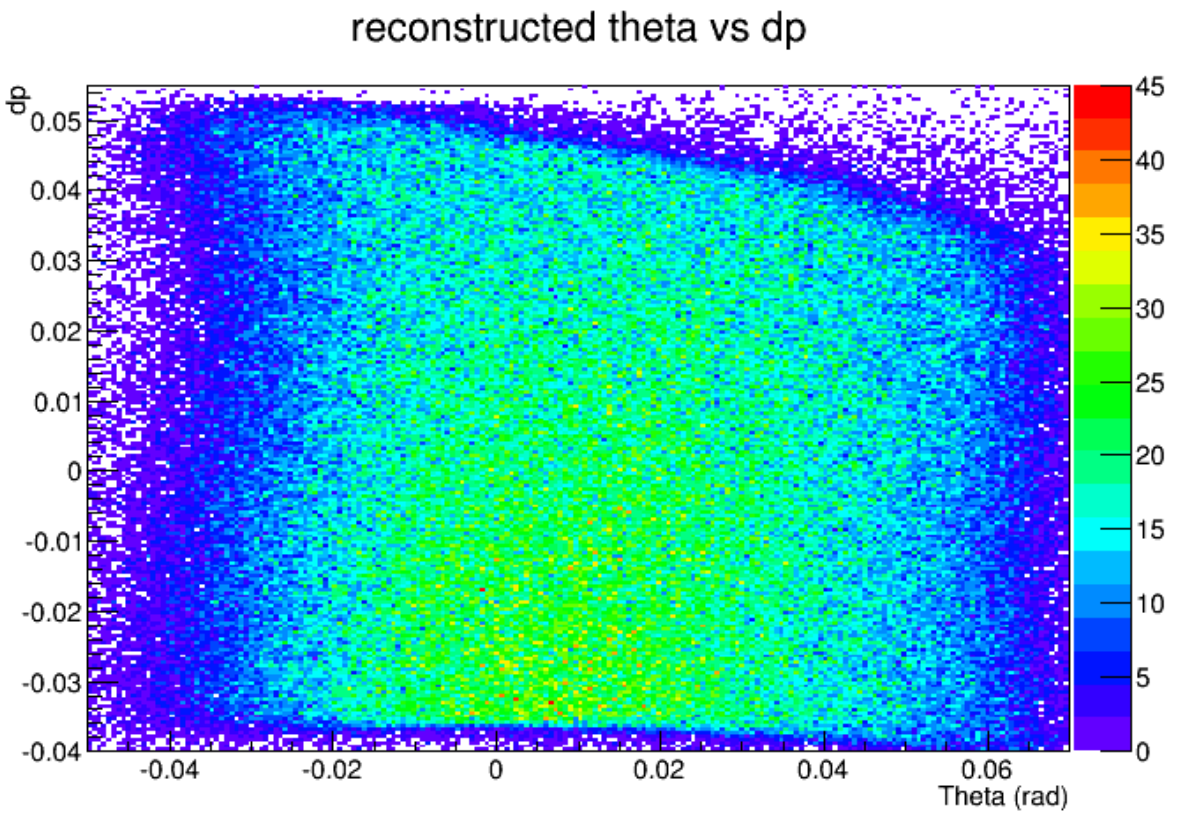


phi vs dp (before target effects)



dp vs reconstructed phi





- At the moment I can't recreate a continuous yield using any acceptance cuts.
- Still not sure if it is real or a bug, fairly confident it is not acceptance related though.
- Suggestions from meeting?

Also, target polarization re-analysis is done and results are on MySQL. Uncertainties are relative and systematic! I will send out an email to the collaboration with more information soon.