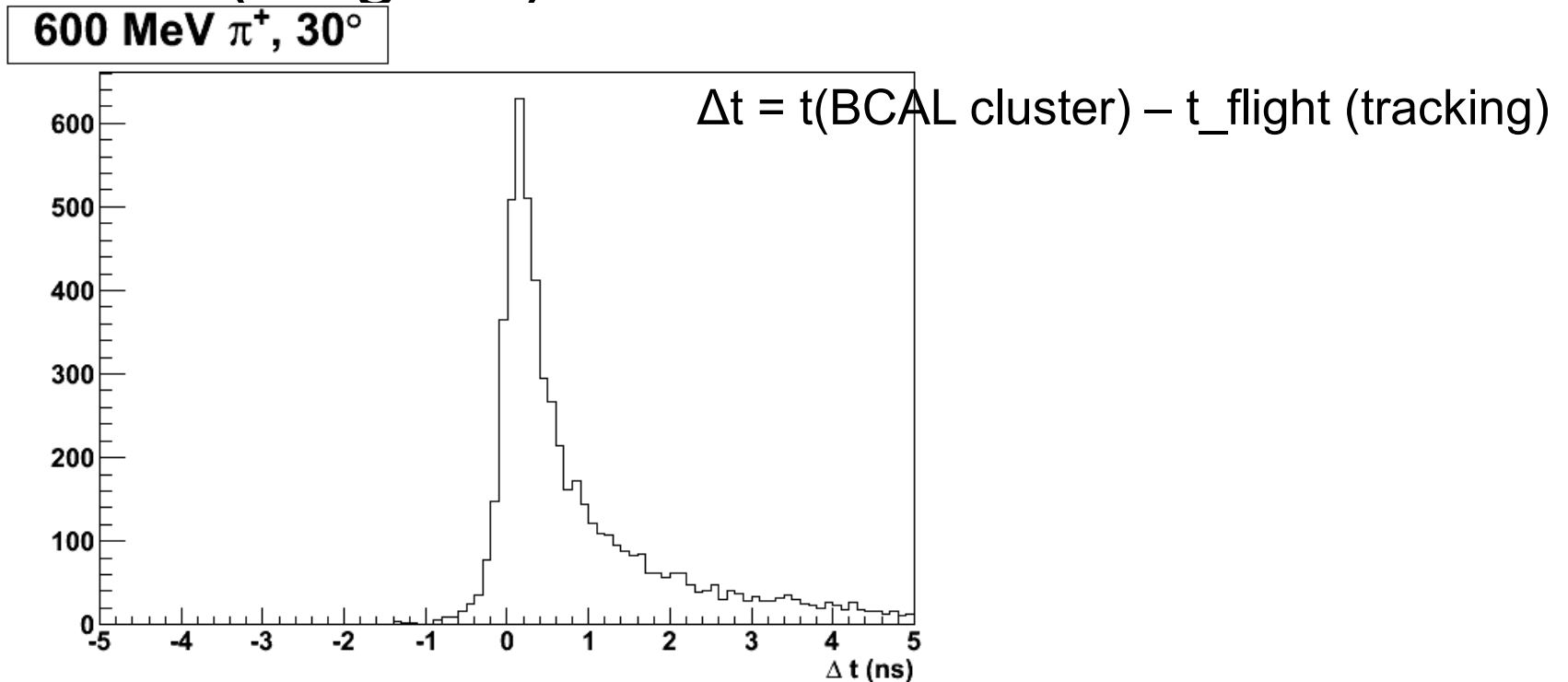


# BCAL TOF: Hadrons

- The problem: hadrons appear to arrive late in the BCAL (long tail)

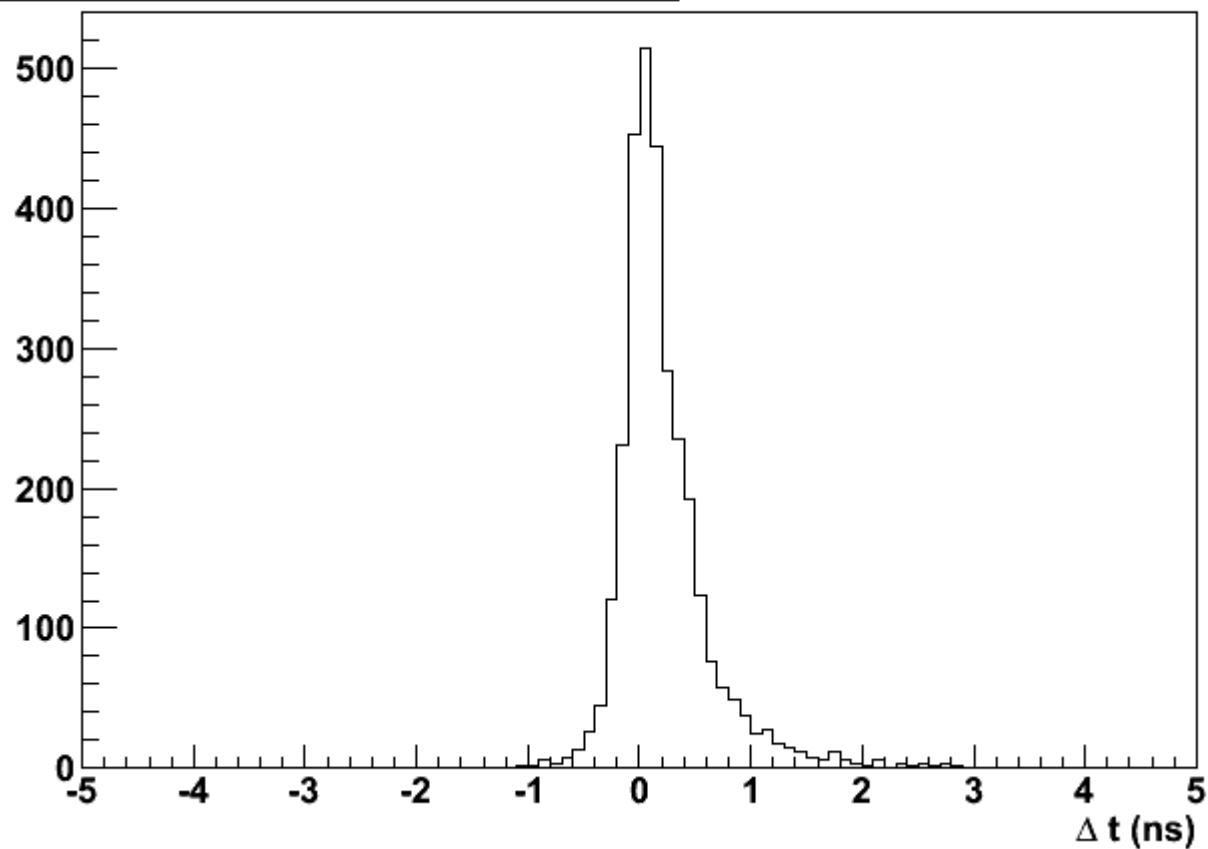


- The reason: neutrons?

# BCAL TOF: photons

- Does not happen for photons!

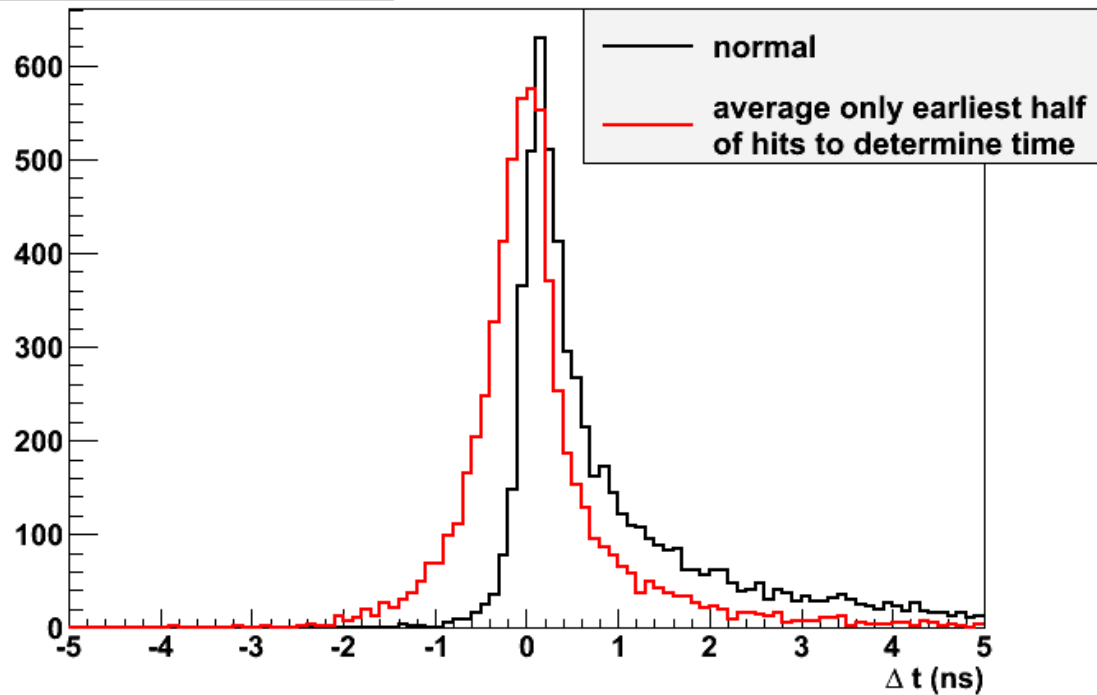
100 MeV photons, 30°



# Prune late hits

- How we can get a better TOF measurement?
  - Need to prune late hits
  - Only use earliest half of hits to determine cluster time?

600 MeV  $\pi^+$ , 30°

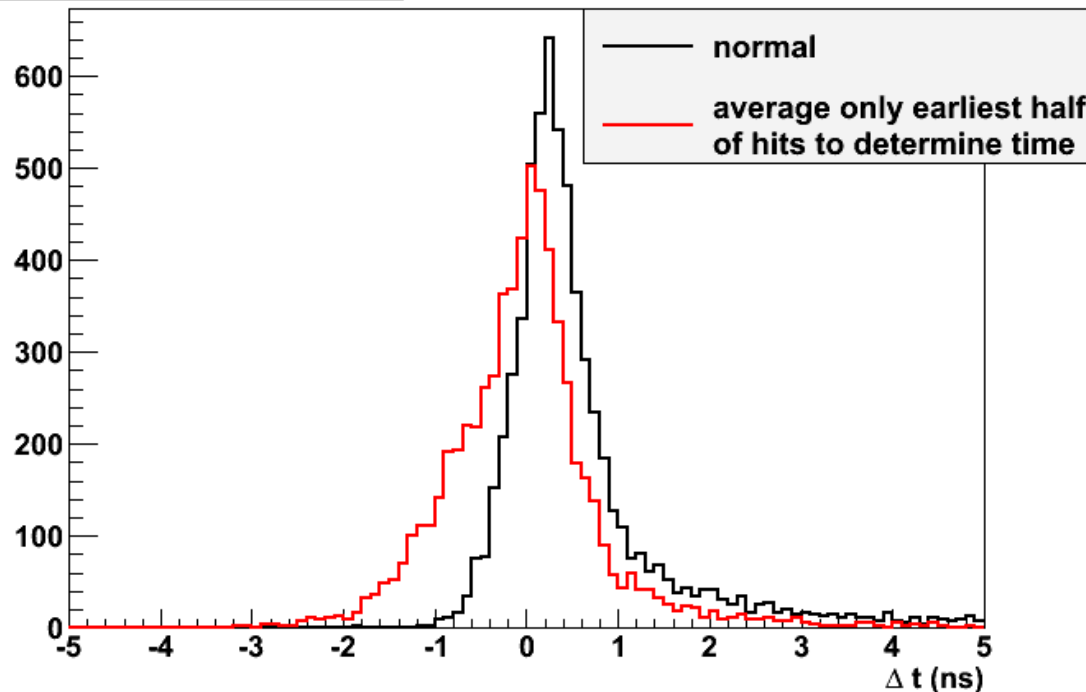


Looks good!

# Prune late hits

- How we can get a better TOF measurement?
  - Need to prune late hits
  - Only use earliest half of hits to determine cluster time?

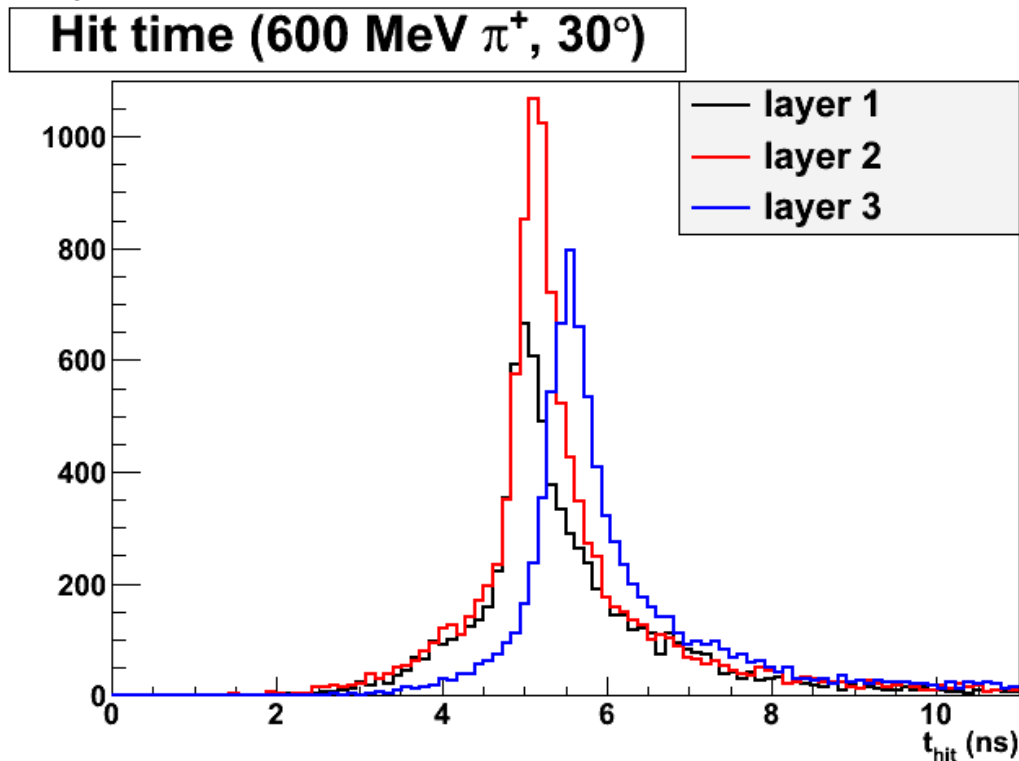
600 MeV  $\pi^+$ , 90°



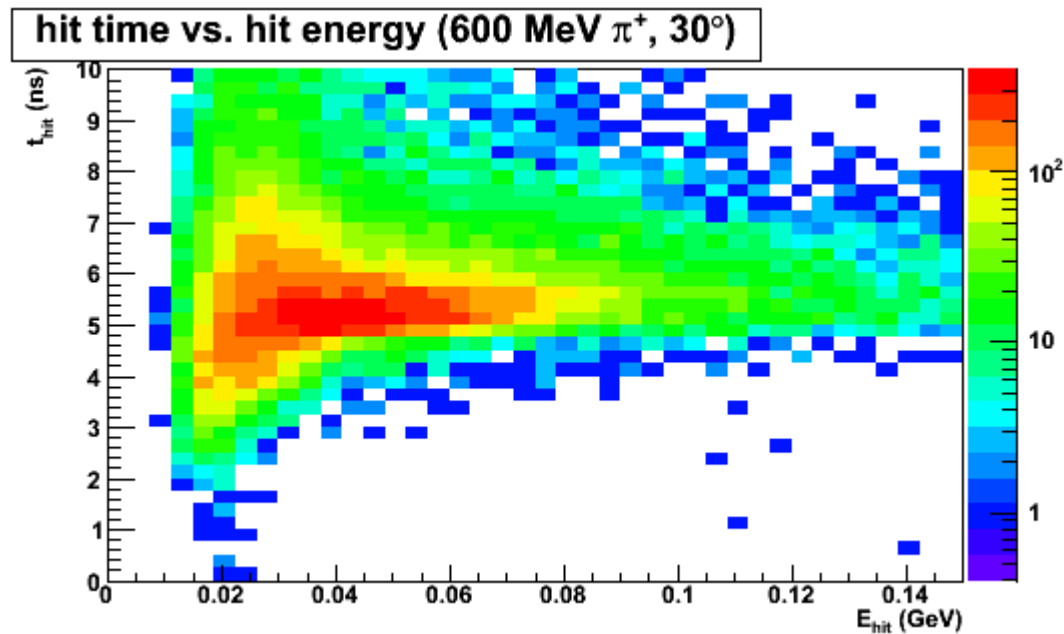
Looks bad!

Eliminating later hits  
can bias distribution

- Eliminating arbitrary late hits will bias distribution
- Is there a smarter way to identify late hits
  - By layer?



- Eliminating arbitrary late hits will bias distribution
- Is there a smarter way to identify late hits
  - By energy?



- Eliminating arbitrary late hits will bias distribution
- Is there a smarter way to identify late hits
  - No?