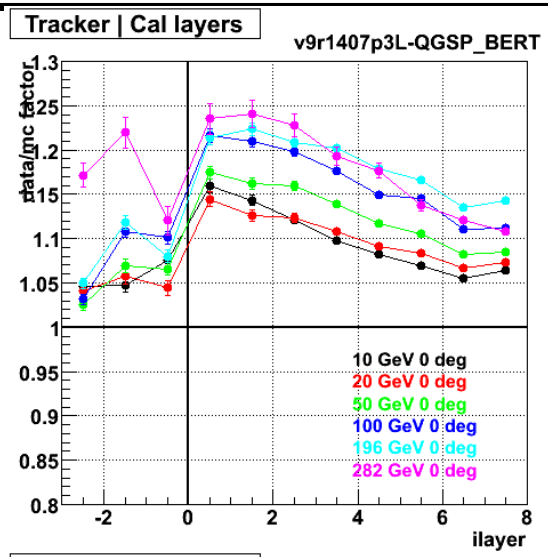
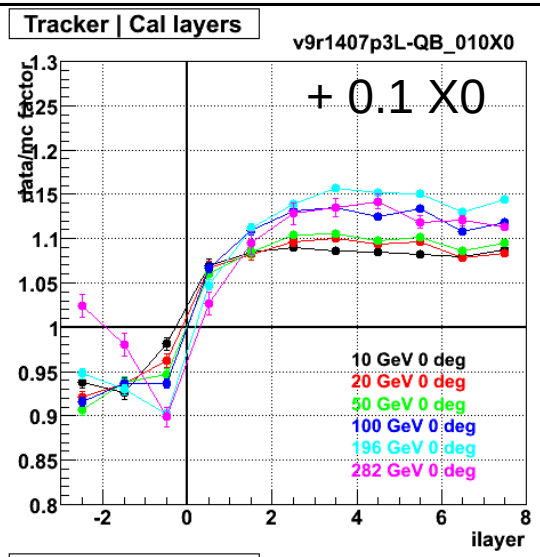
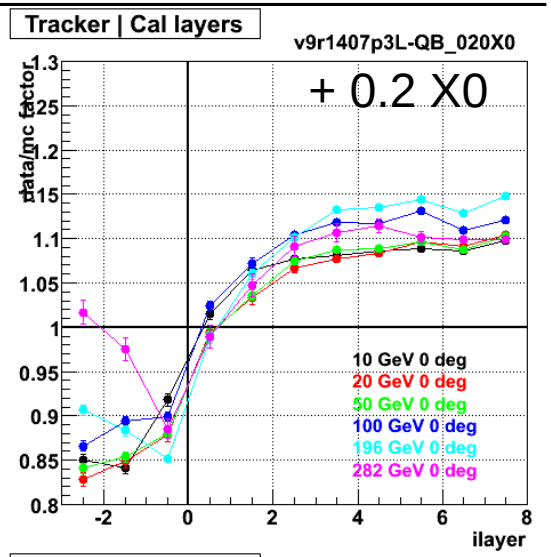
Energy droop due to pedestal drift (as Gary has shown at the last cal meeting)

Reminder (from my last presentation in June)

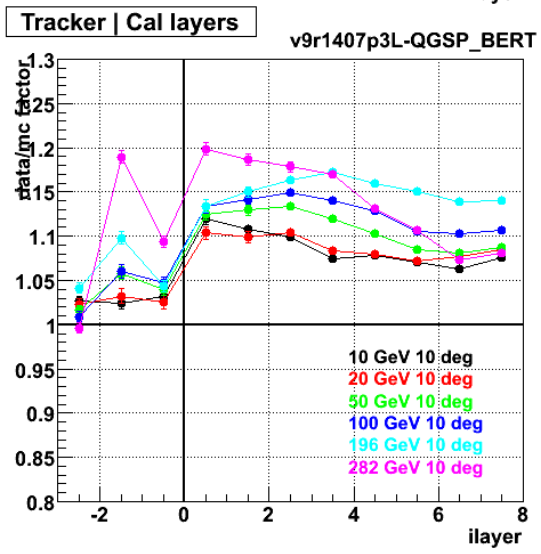
0 deg

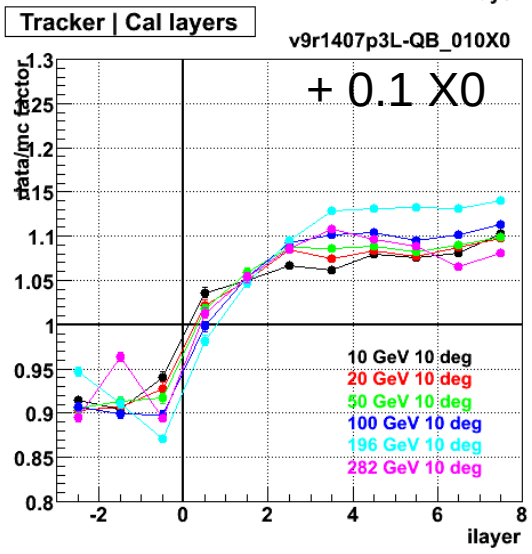


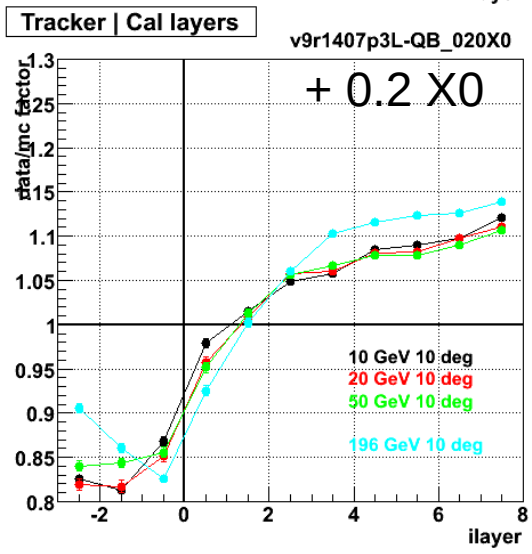




10 deg



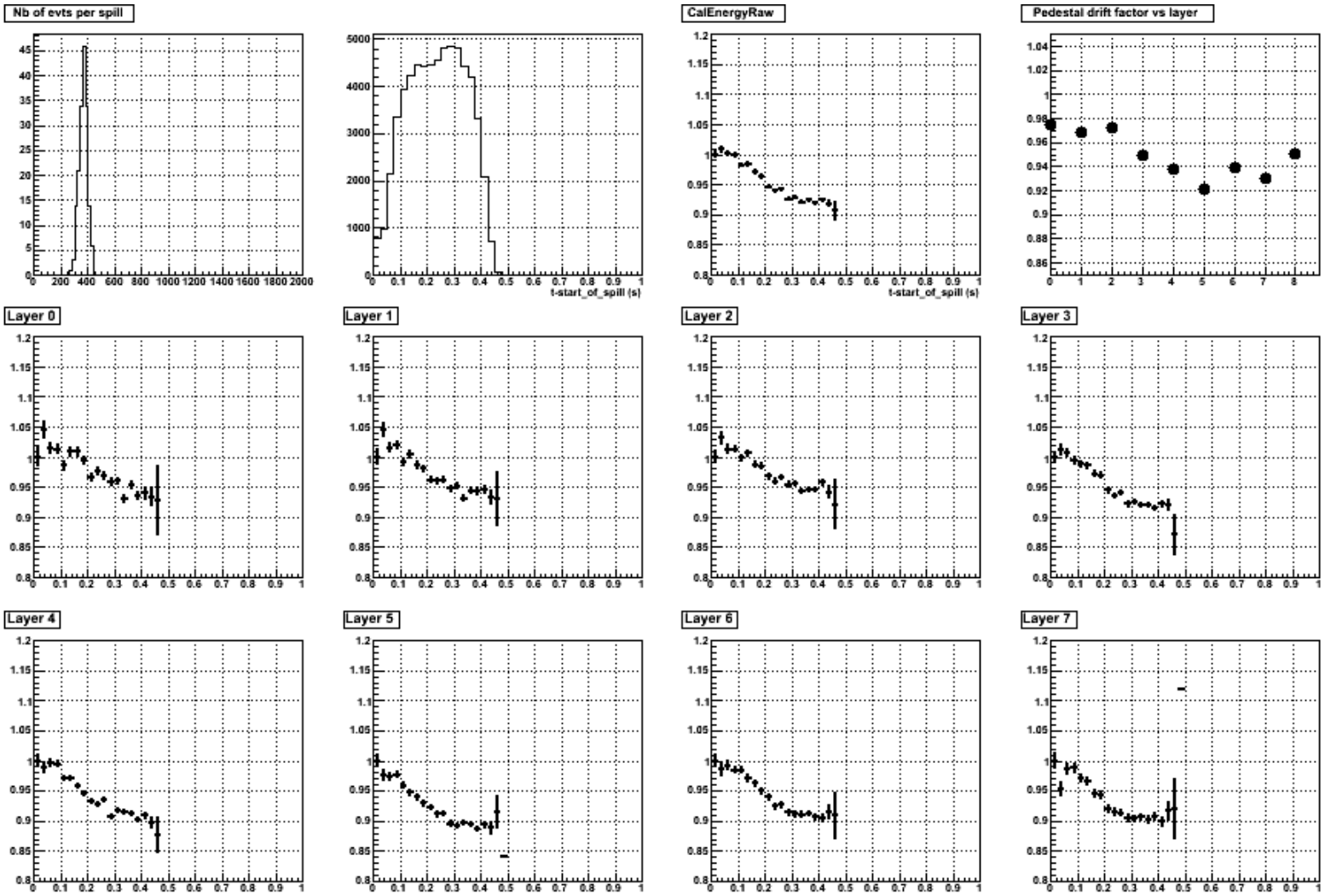




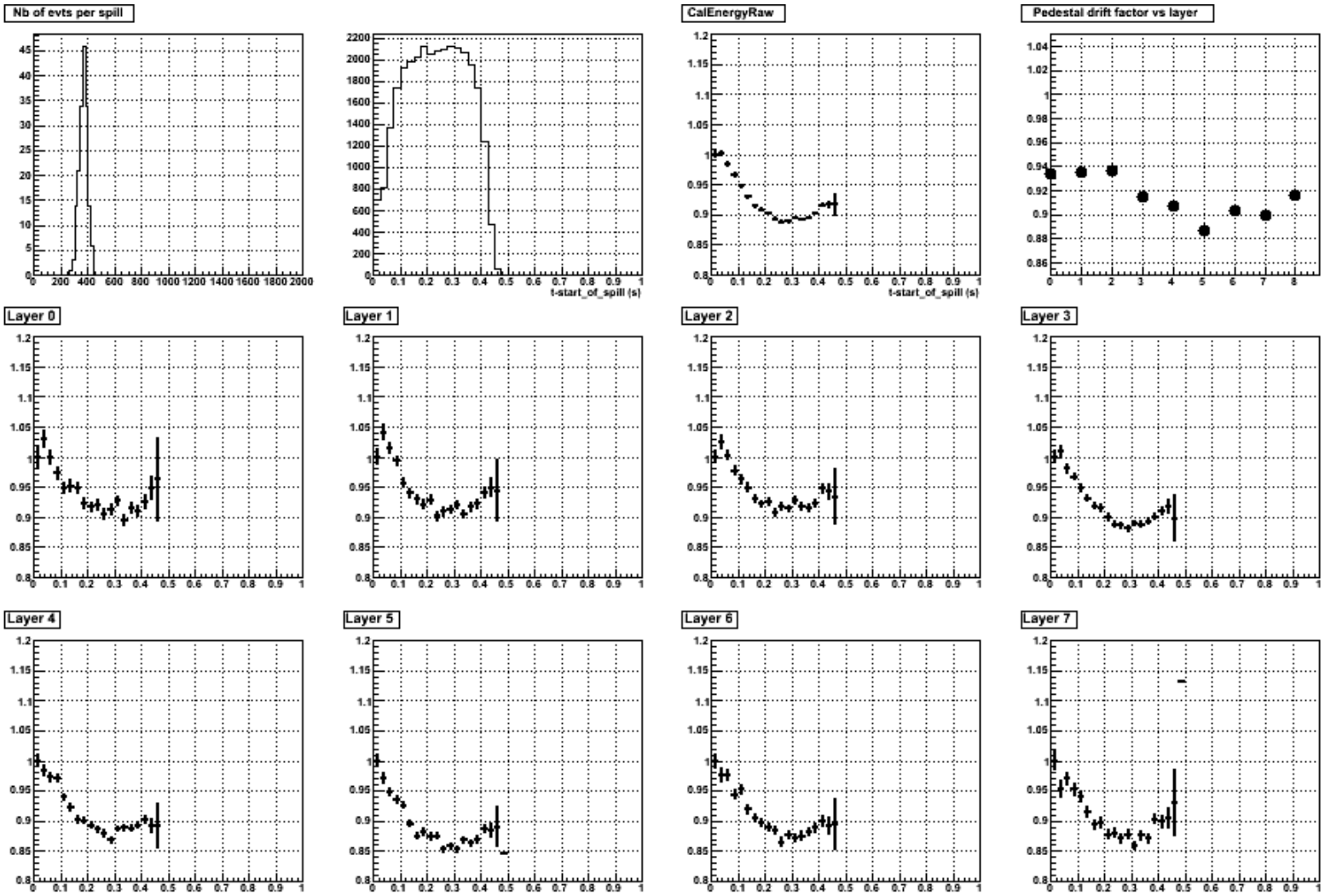
EvtTime vs EvtTicks

- Gary told me to use EvtTicks…
- But since it's a counter that is reset (128s difference), I used EvtTime…
- I finally discovered today that EvtTime does not correspond to the trigger time, thus not always increasing with event number !
- So back to EvtTicks, as Gary told me…
- (always do what Gary tells you !)

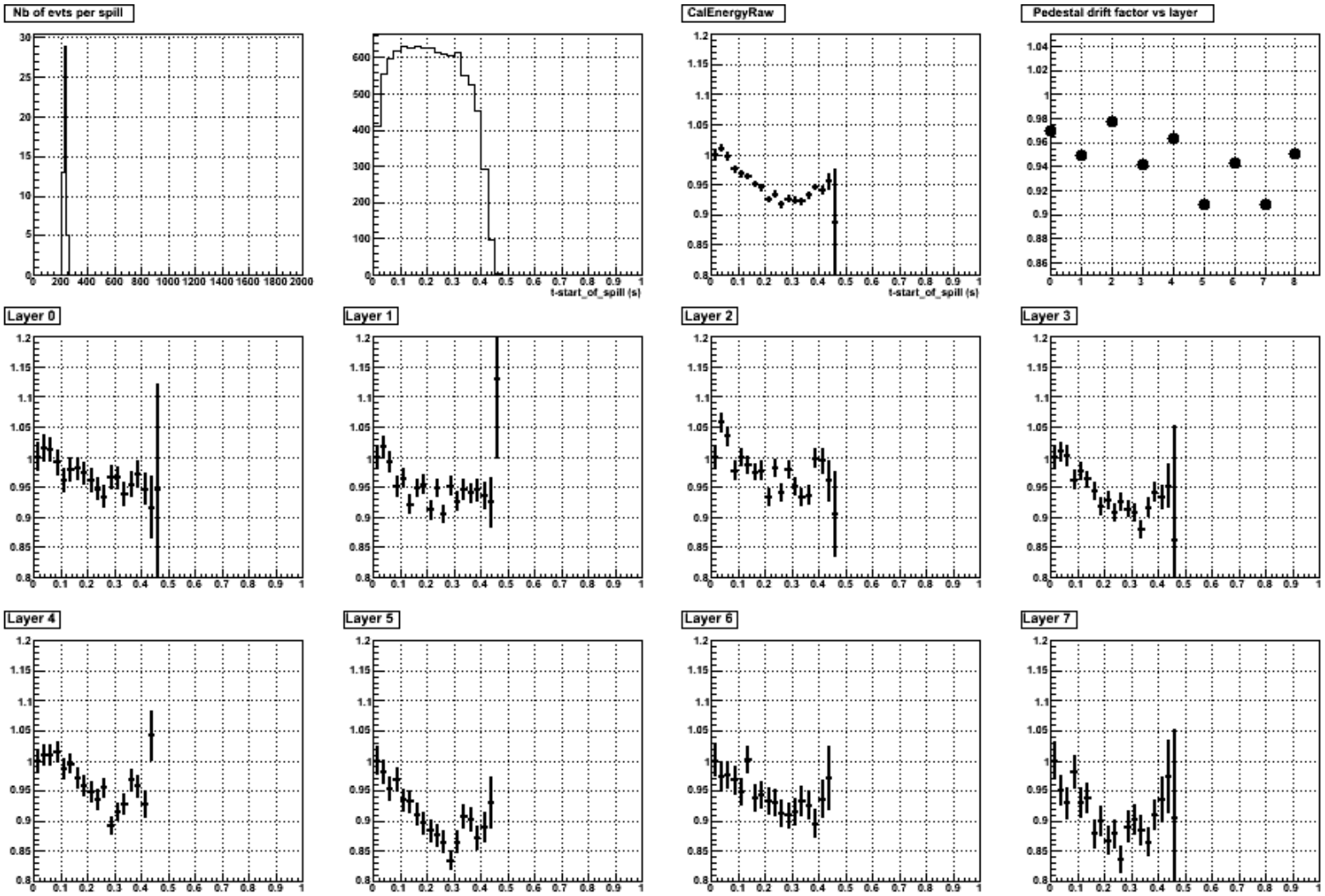
Measuring the energy droop (700001433)



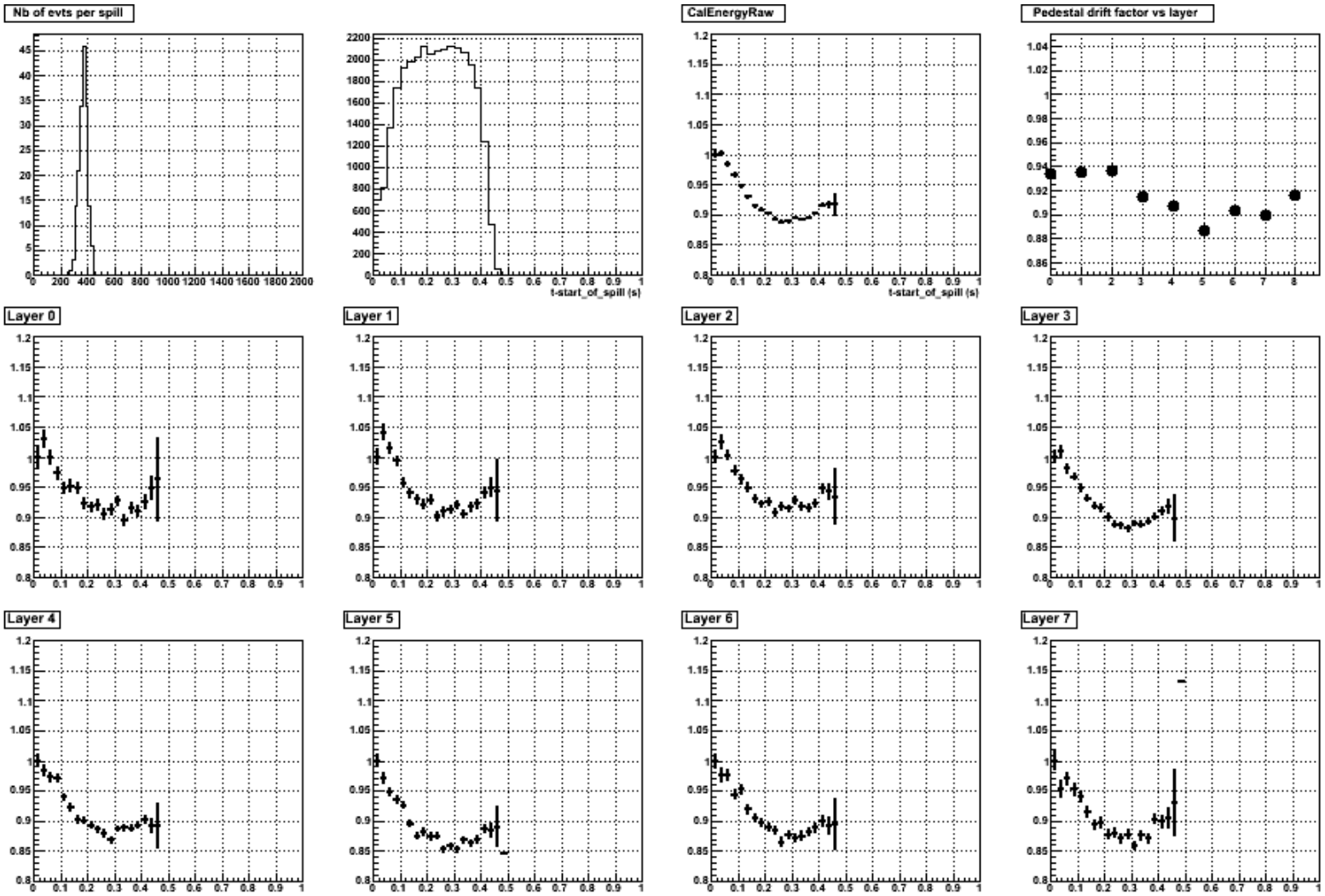
Still 700001433 but with cuts (CalEnergyRaw<2400 and GemDeltaEventTime<10000)



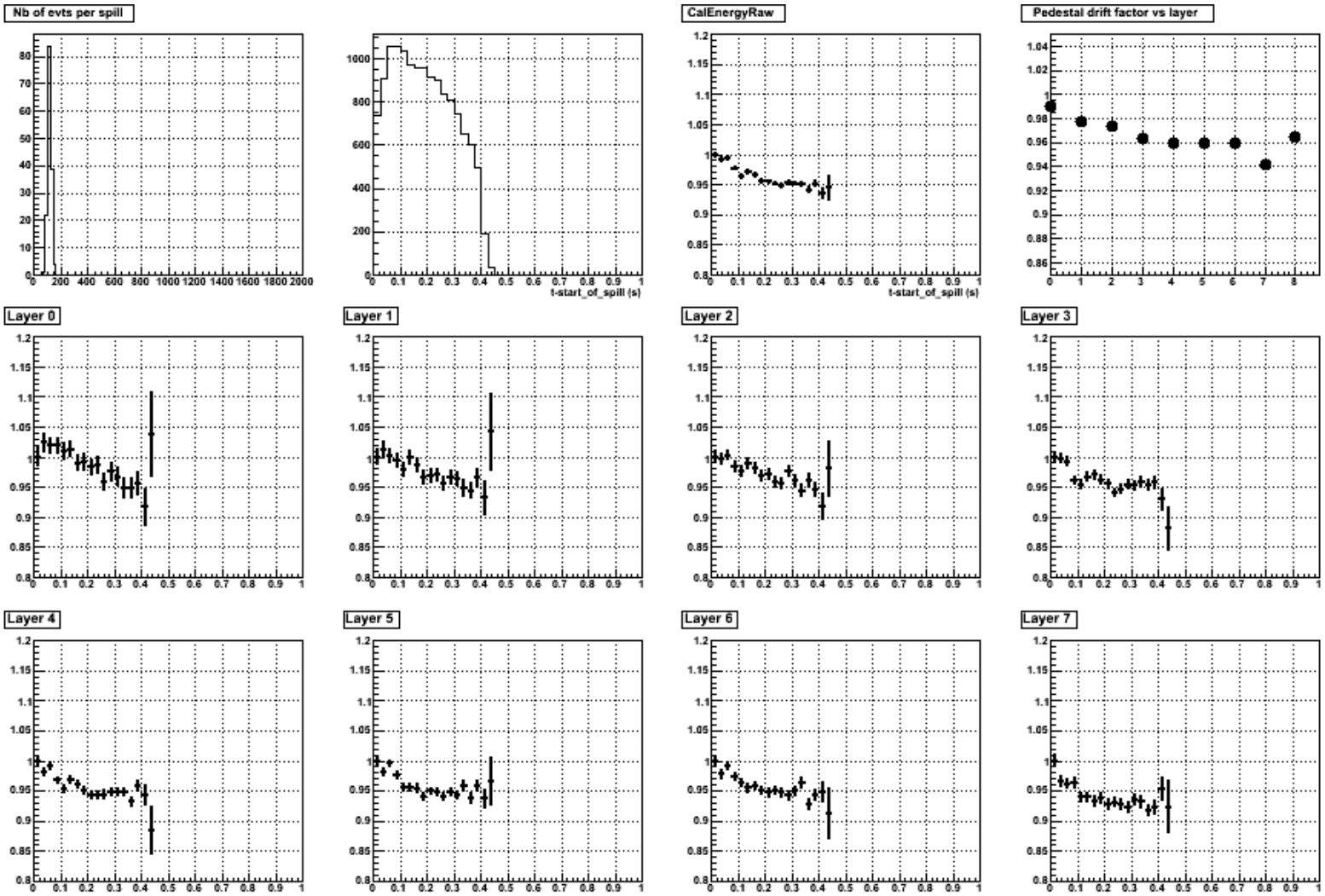
1 GeV (700001259)



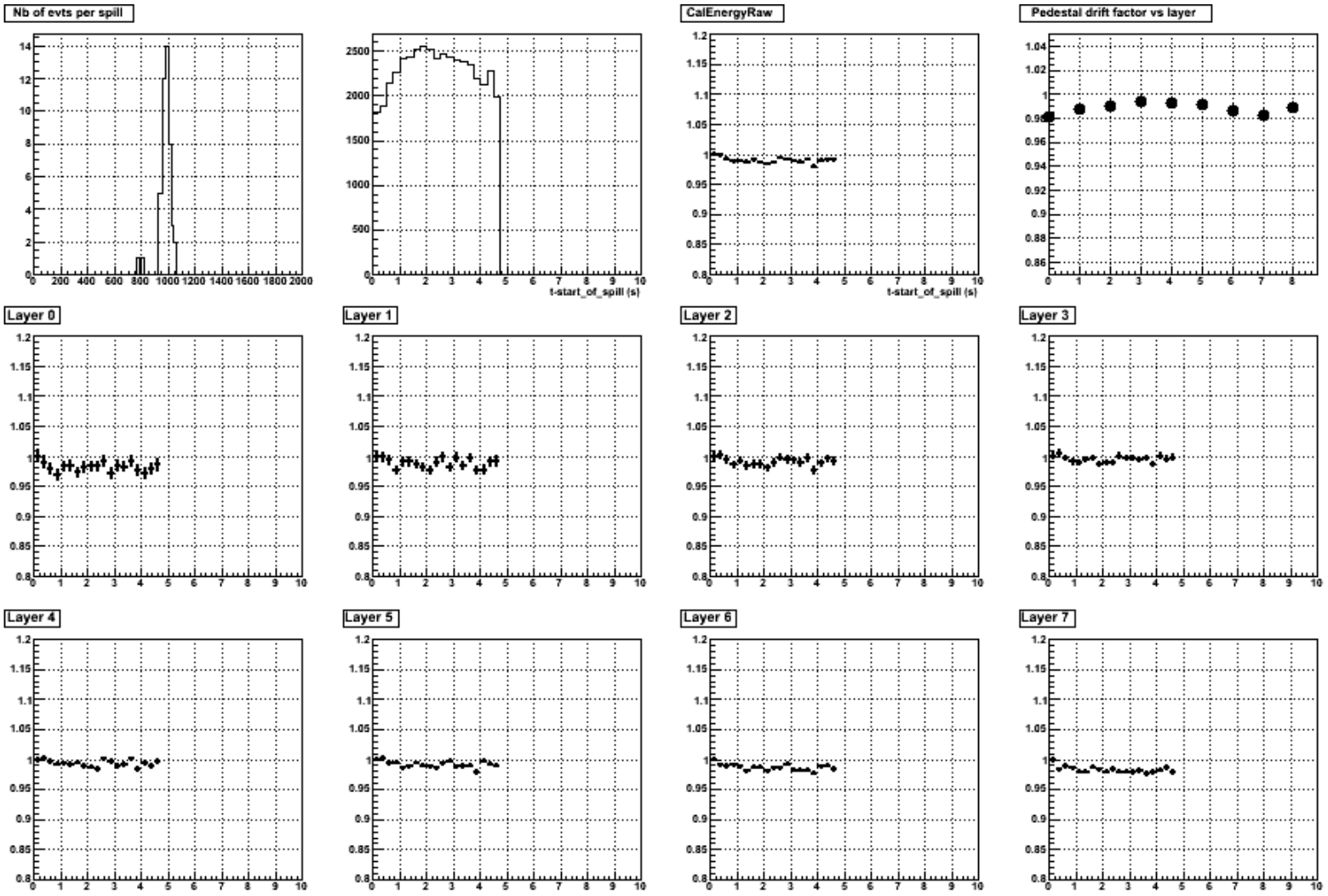
2.5 GeV (700001433)



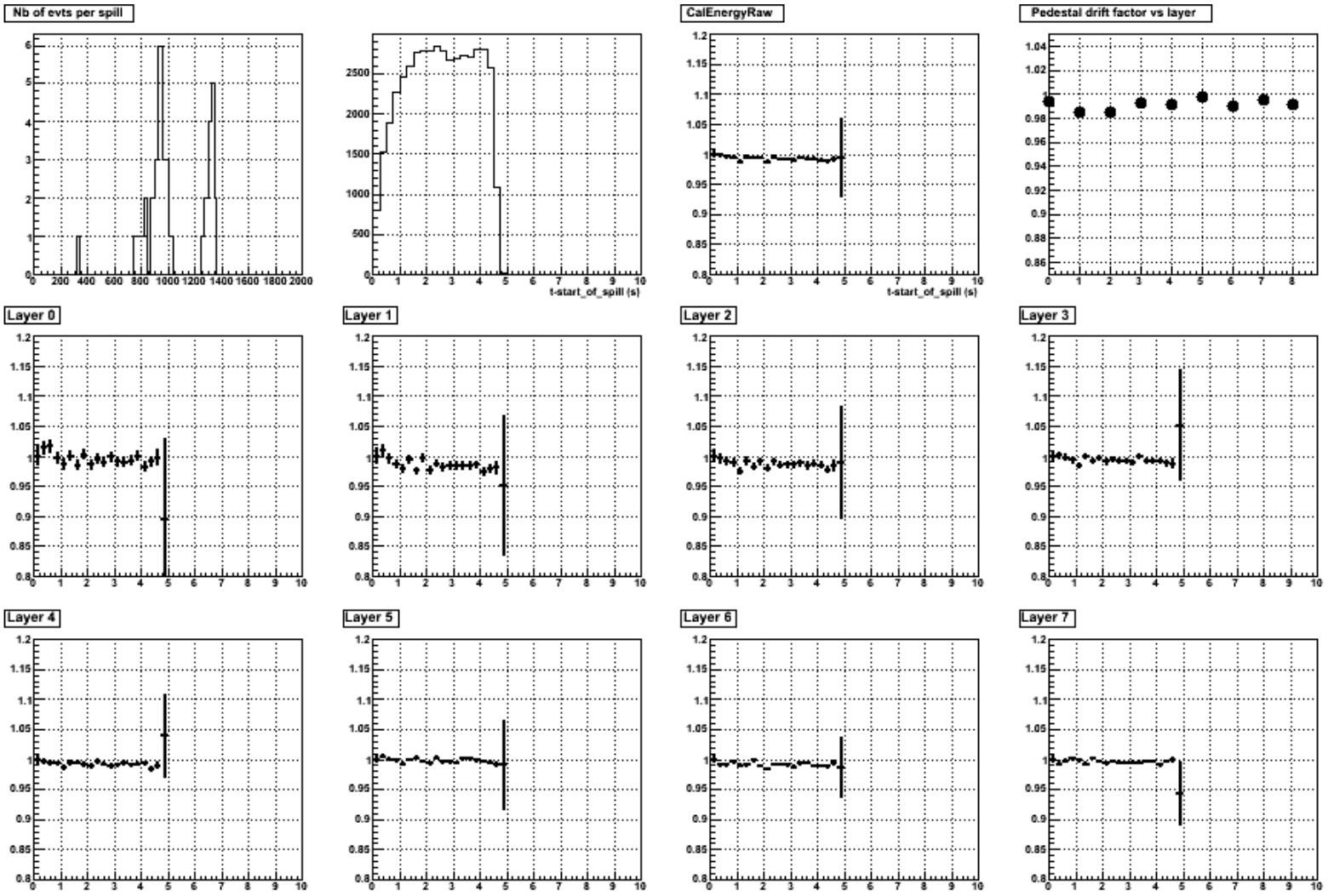
5 GeV (700001460)



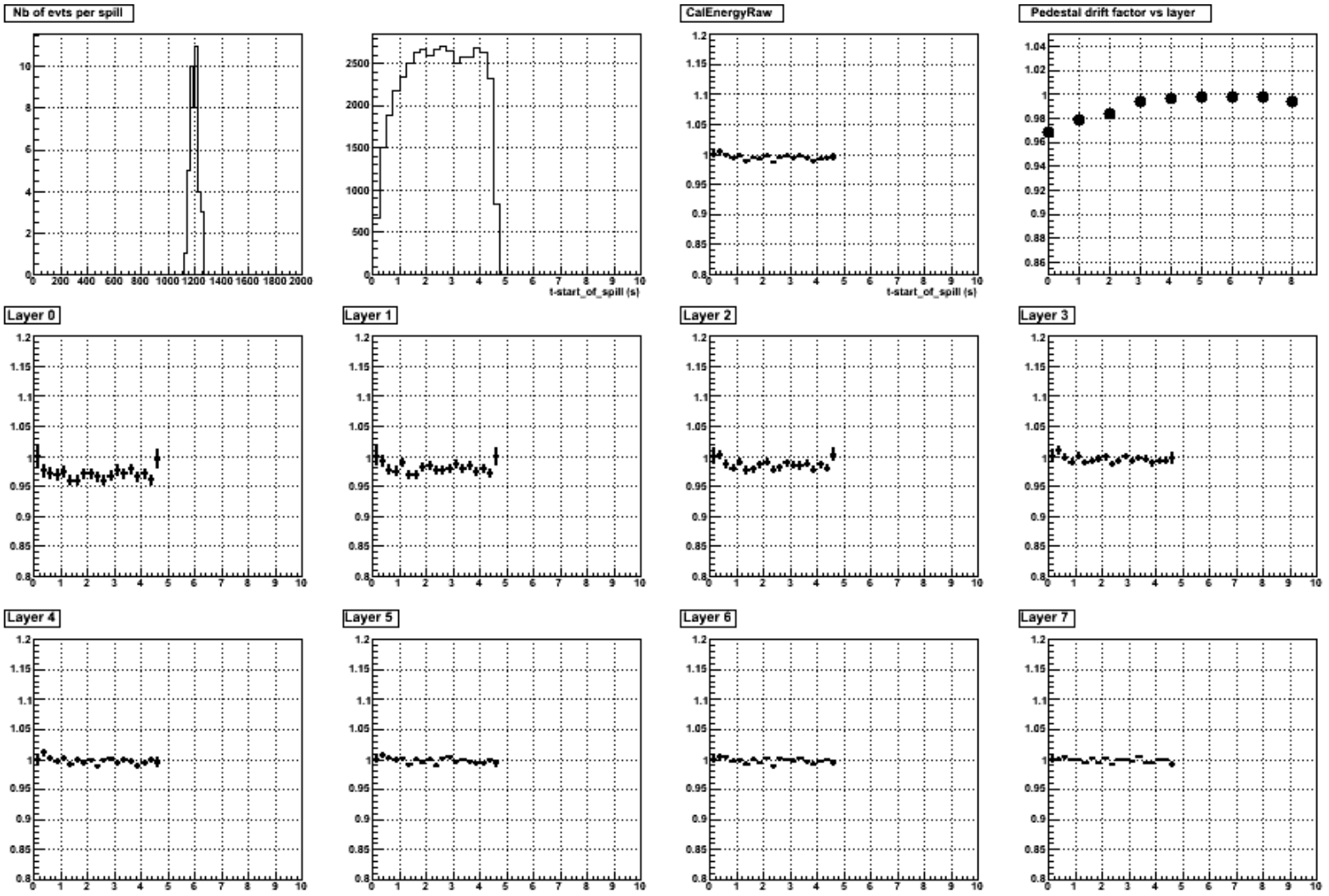
10 GeV (700002338)



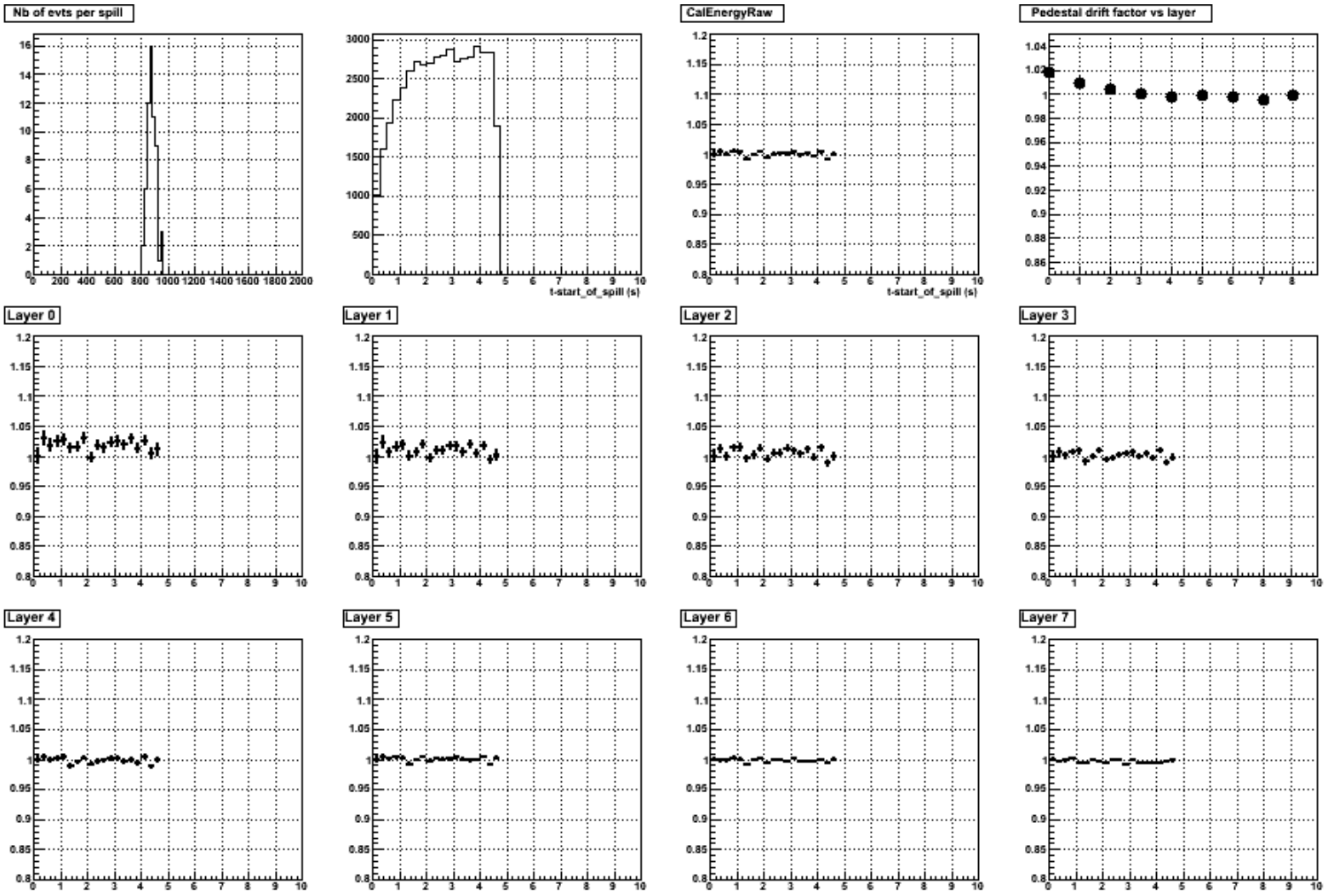
20 GeV (700002082)



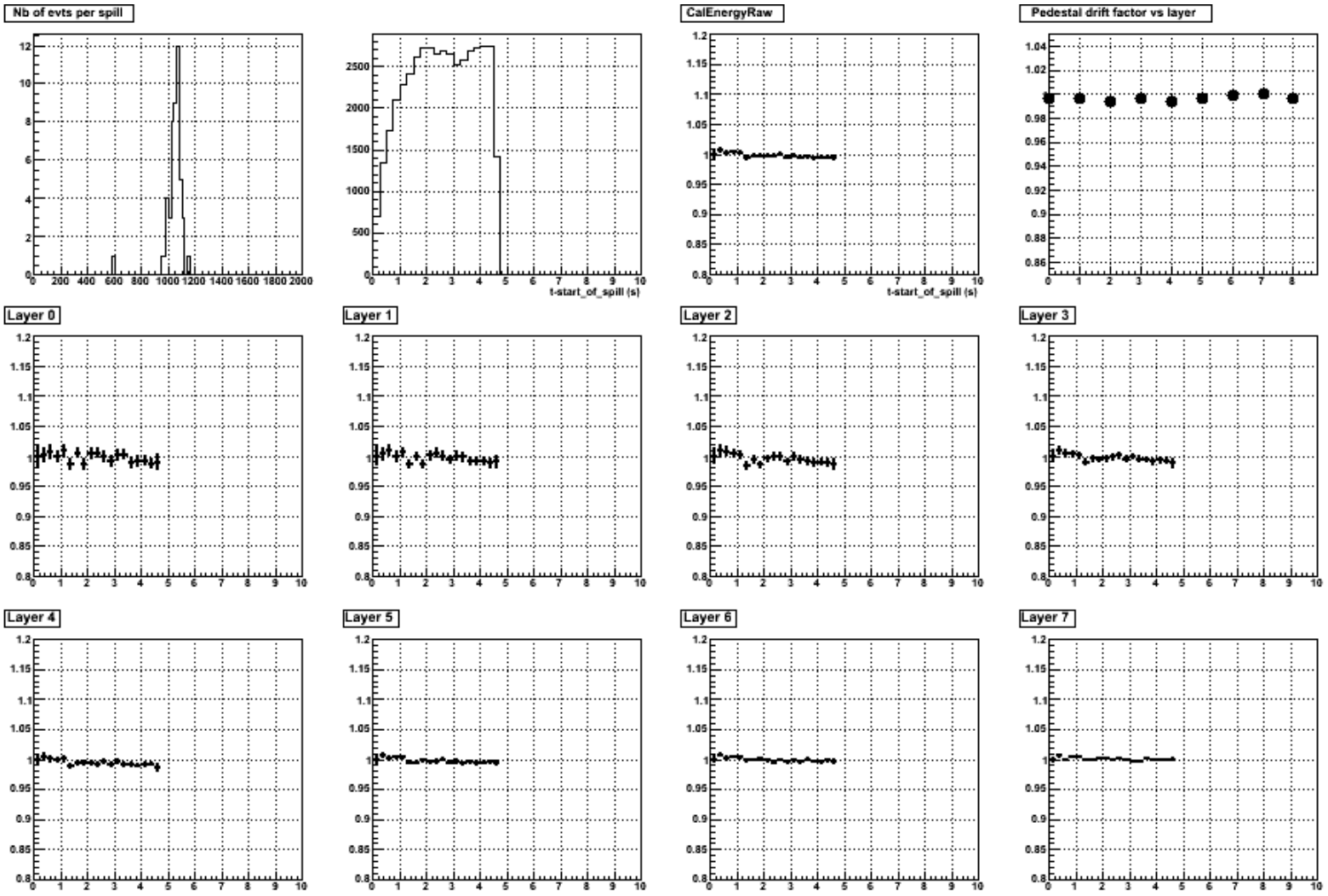
50 GeV (700002039)



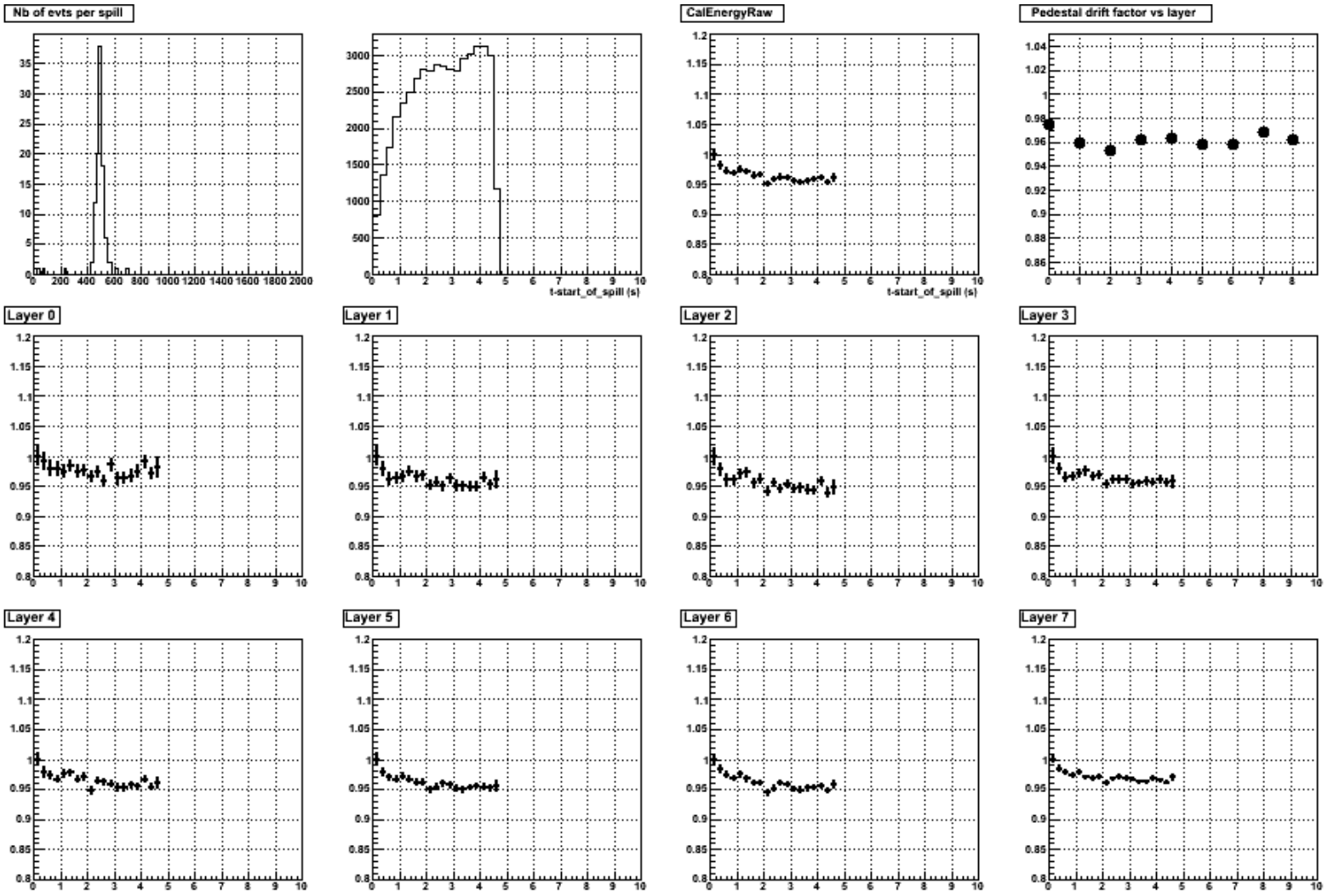
100 GeV (700001981)



196 GeV (700001911)



282 GeV (700001922)



Conclusions

- The energy droop correction factors depend on the layer and the cuts
- We have to take them into account in order to :
  - Estimate the optimal extra-material along the beamline
  - Determine the global scaling factor
- Next :
  - Reprocess the data with the global scaling factor
  - Compare EvtEnergyCorr, CalLkHdEnergy and CalCfpEnergy between data and MC