Data electron quality
"June 2018"

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AHCAL Analysis Workshop

Tokyo, 10th August, 2018

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CALICE
Calorimeter for ILC

Check the data quality : electron "June 2018"

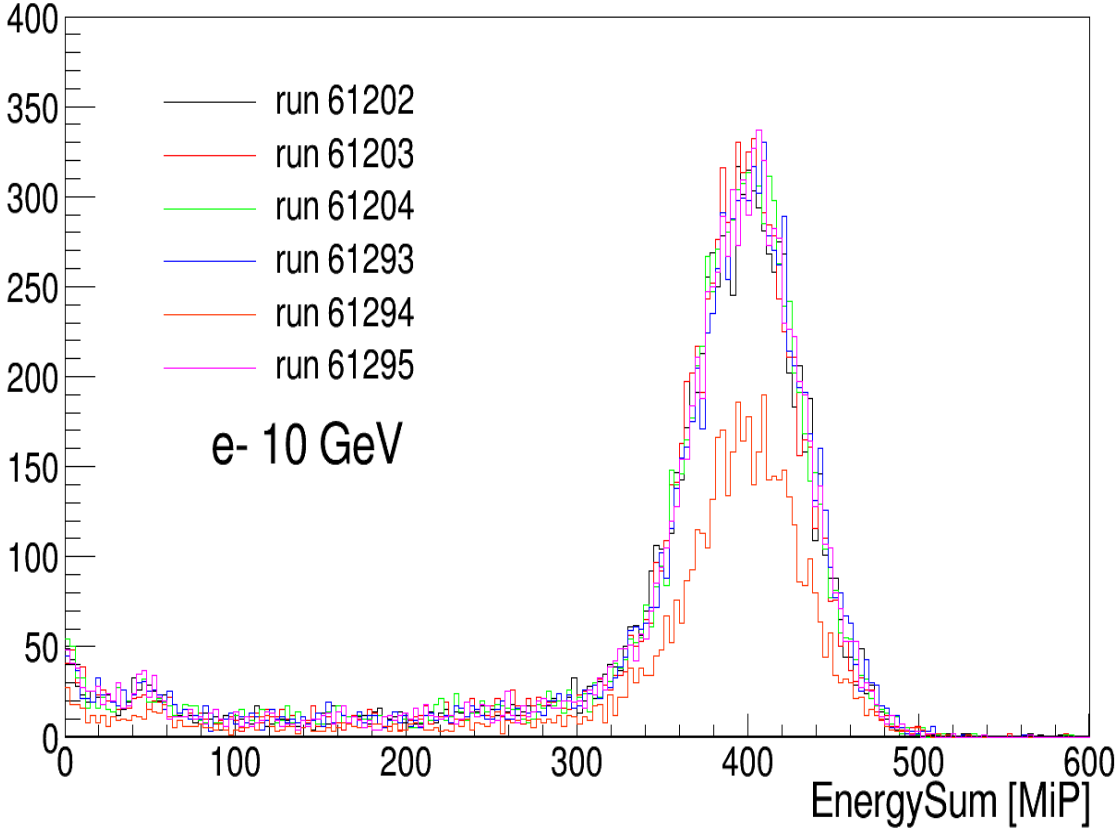
- Before the data reconstraction : I compared the data(.slcio) in the nfs with the runs in the google sheet.
- Reconstraction for electron data for all the energies: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100 GeV.
- Look to the ahc_energySum and ahc_nHits distributions.
- Compare these distributions for different runs in order to check the good and bad runs ?!

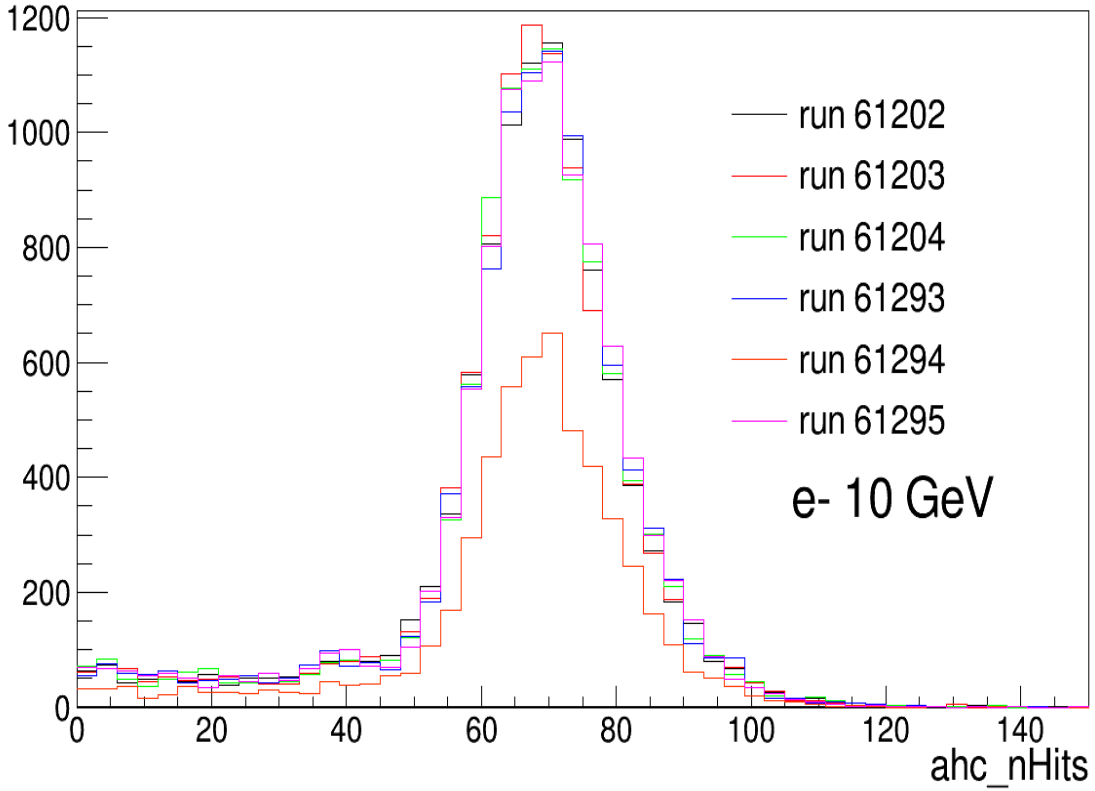
Check the data quality : electron "June 2018"

Before the reconstraction : I compared the data(.slcio) in the nfs with the runs in the google sheet.

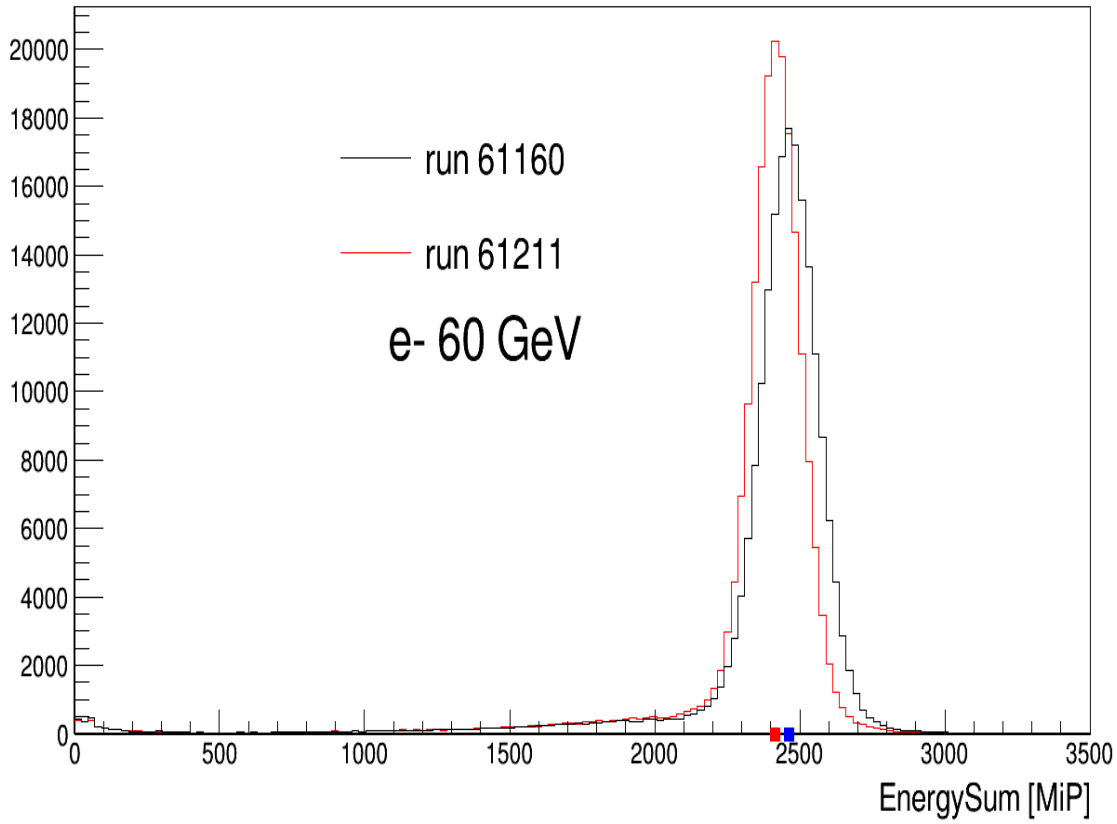
- Reconstraction for all the electron data. (but only 10000 events per run (by mistakes))
- Look to the ahc_energySum and ahc_nHits distributions.
- Compare these distributions for different runs in order to check the good and bad runs ?!

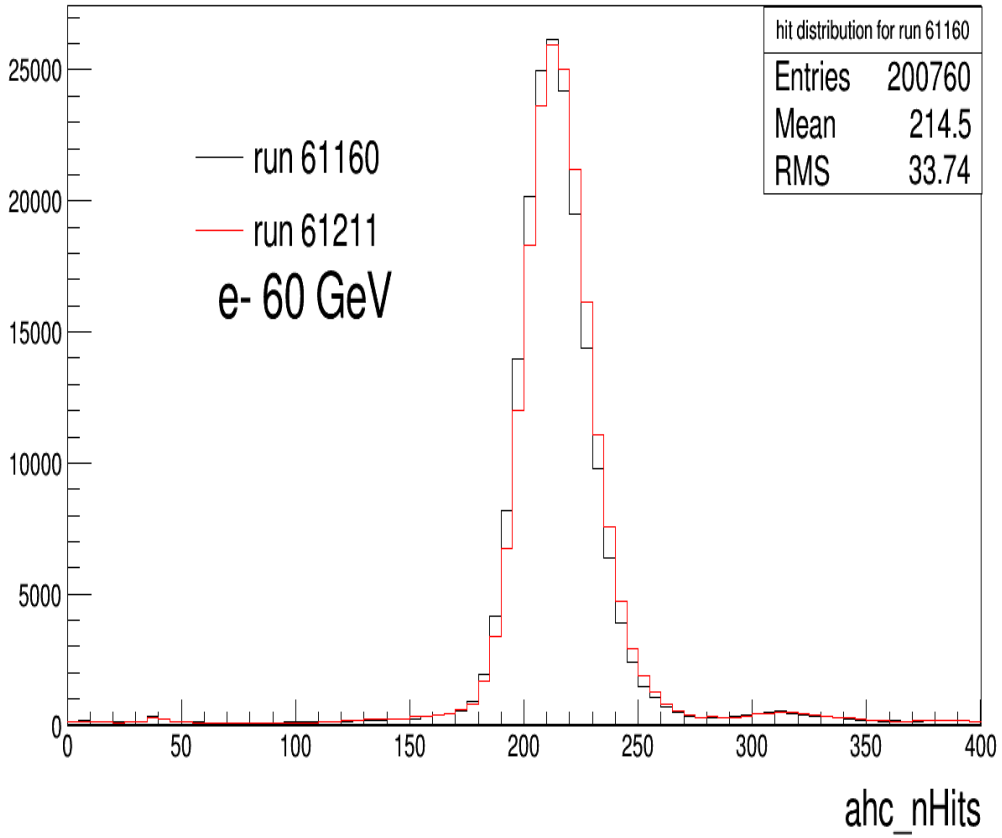
Energy_sum and hits distributions : 10 GeV



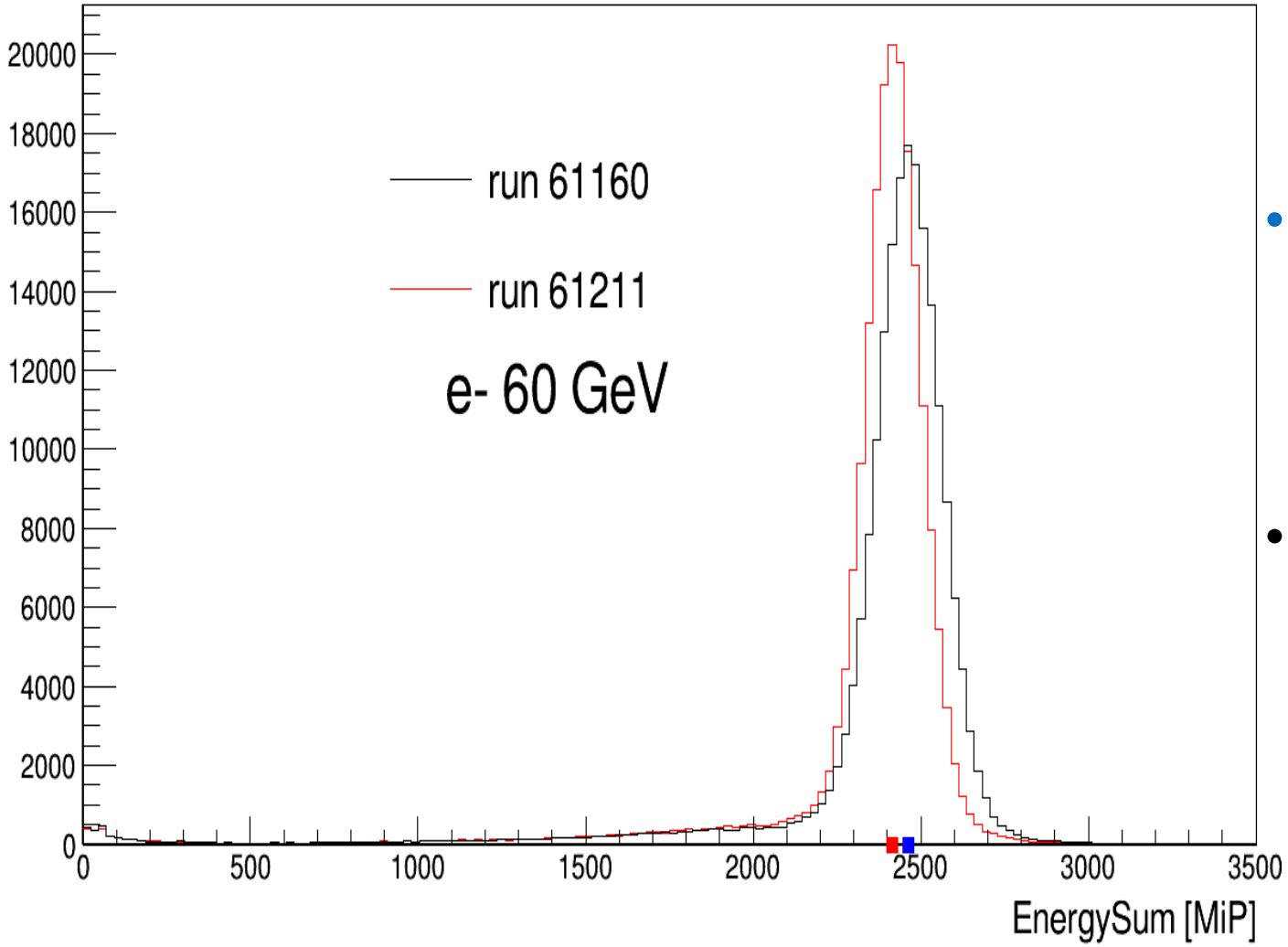


Energy_sum and hits distributions : 60 GeV





Energy_sum distribution : 60 GeV



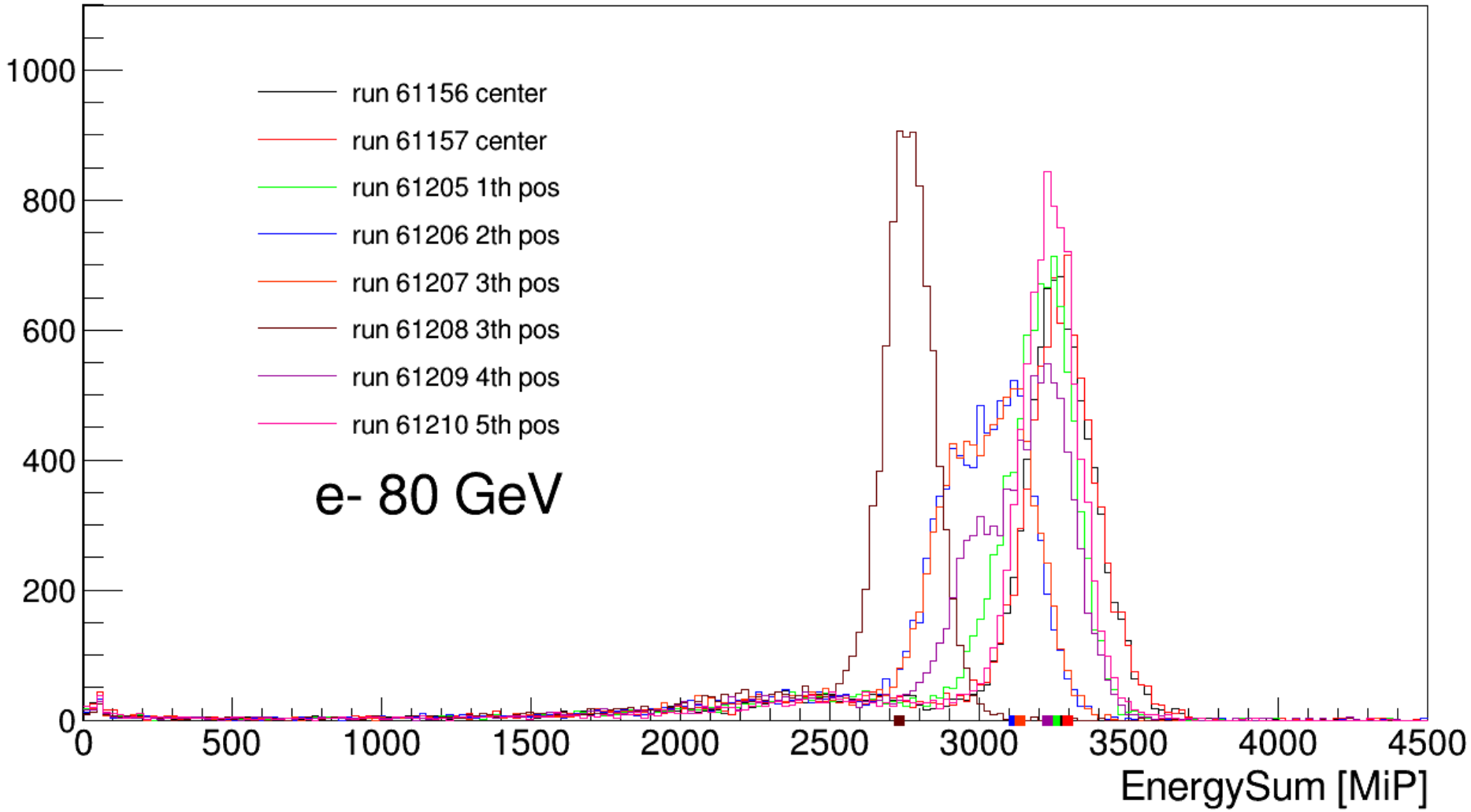
- Detector position " center ":

  61160: pos[mm]: x= 613.3, y= -620.9
  61211: pos[mm]: x= 652.6, y= -579.5

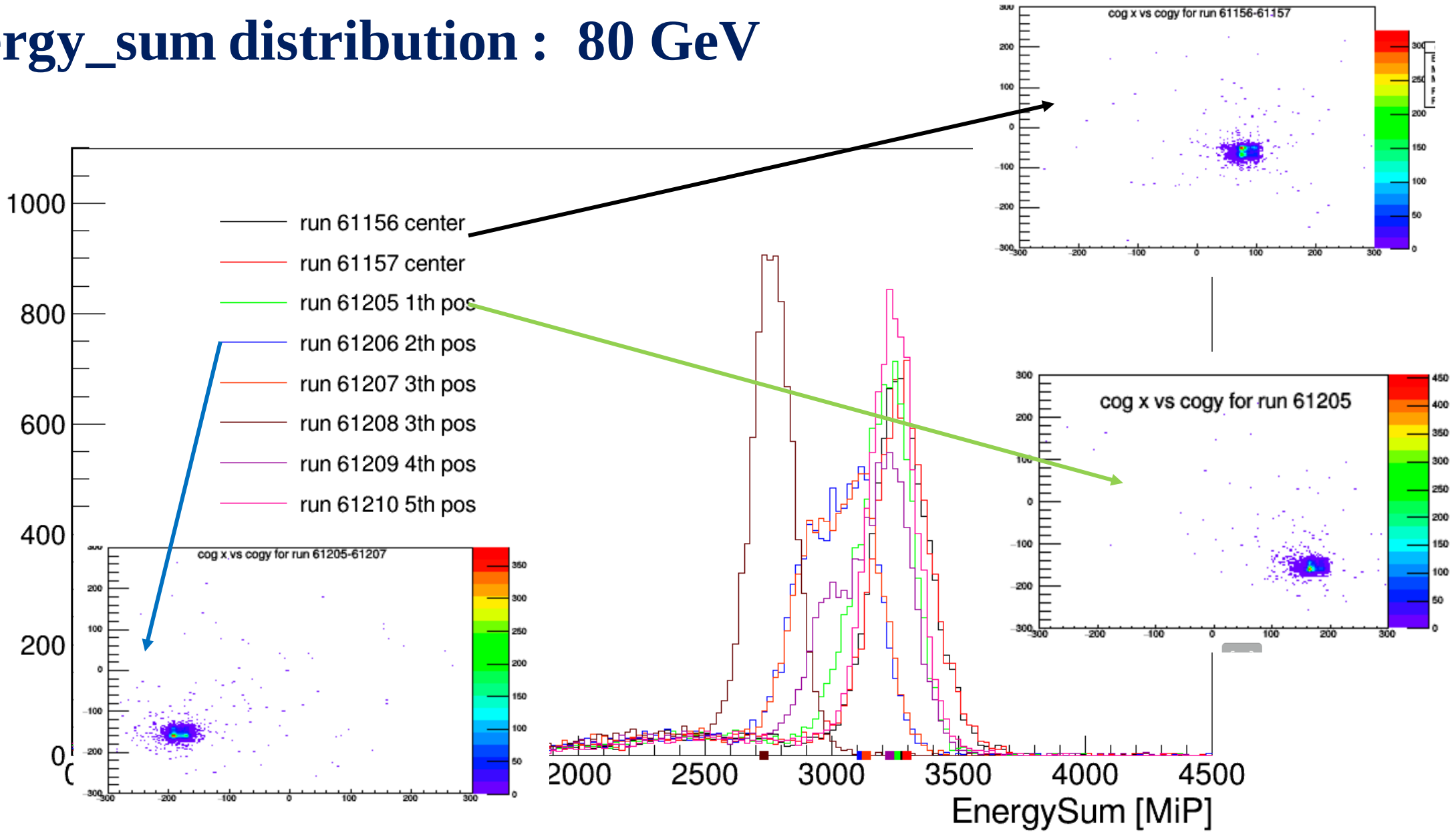
- The center position was shifted by :

  40 mm in x
  49 mm in y

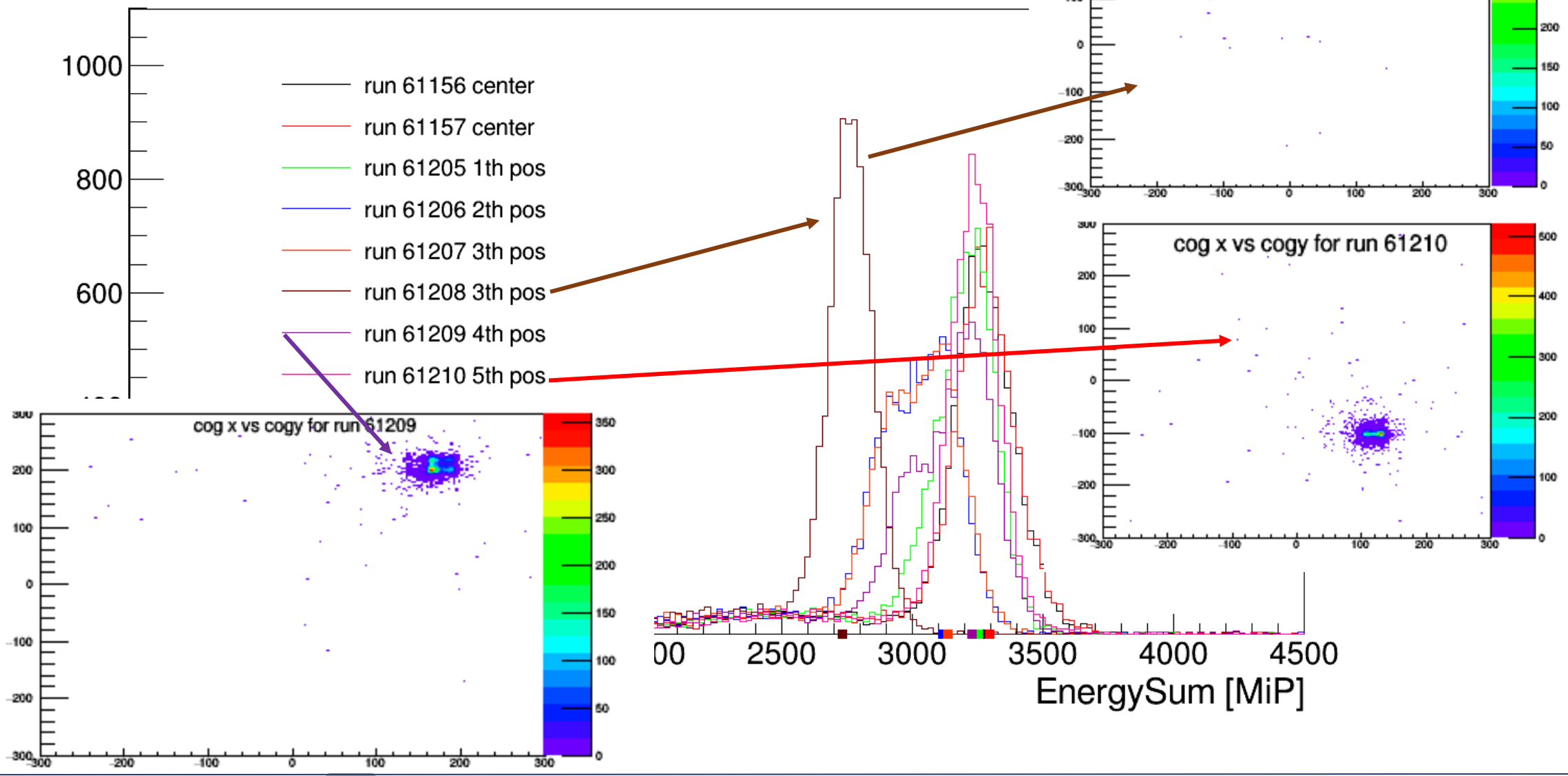
Energy_sum distribution : 80 GeV



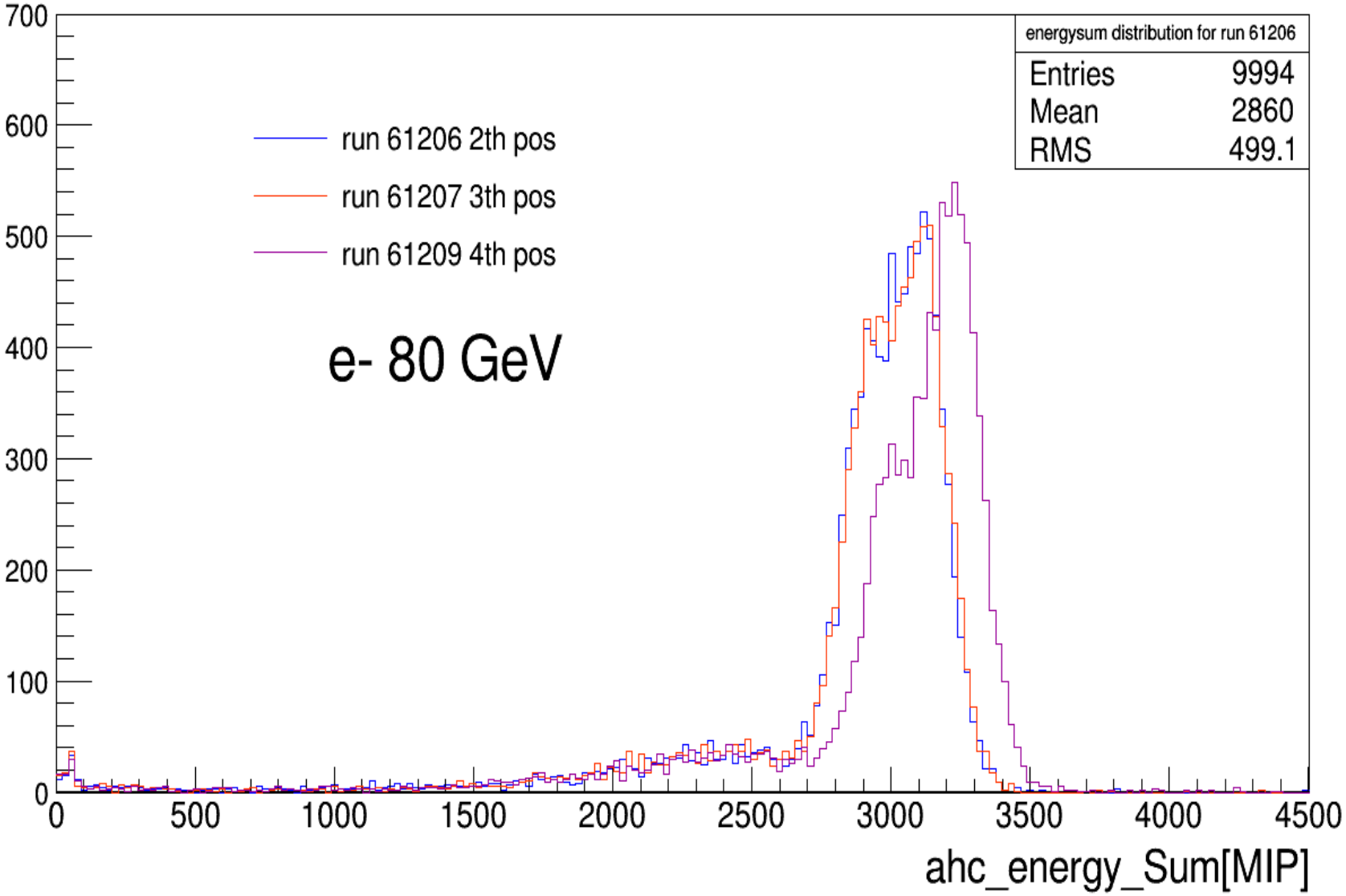
Energy_sum distribution : 80 GeV



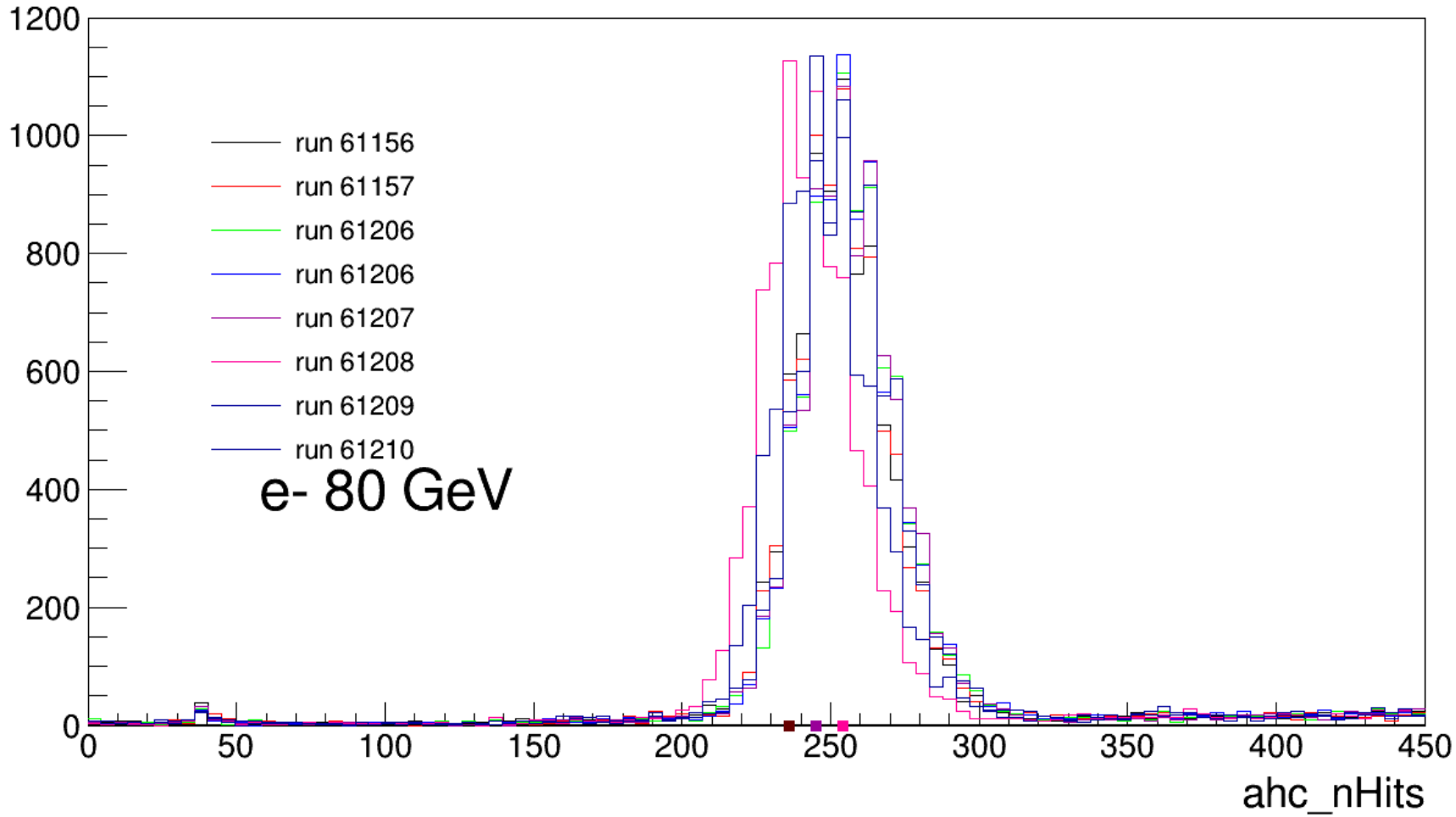
Energy_sum distribution : 80 GeV



Energy_sum distribution : 80 GeV



hits distribution : 80 GeV



Outlook:

- The reconstraction of all the data will be done by tomorrow
- Look more in details to the data of each run and choose the good run to merge in order to have more statistics.
- Start running the simulation.
- Compare the MC with the data.