

Calorimeter calibration

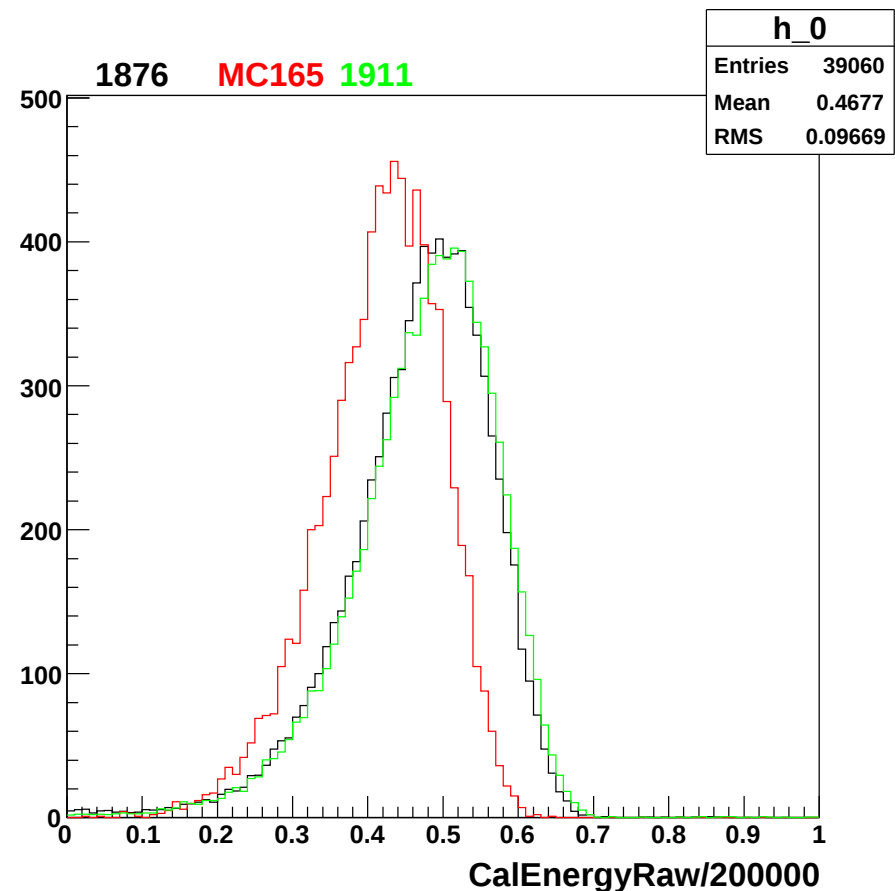
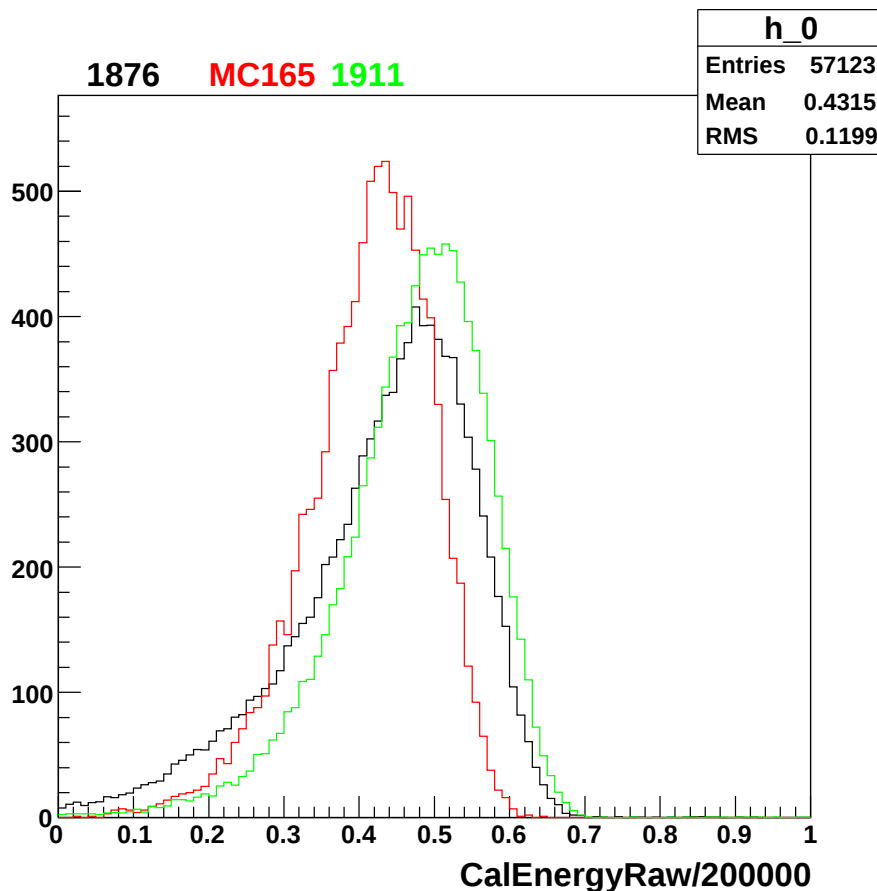
- consequences on energy
- consequences on position

Reminder : between logs

200 GeV electrons in the center of the towers at 0 deg

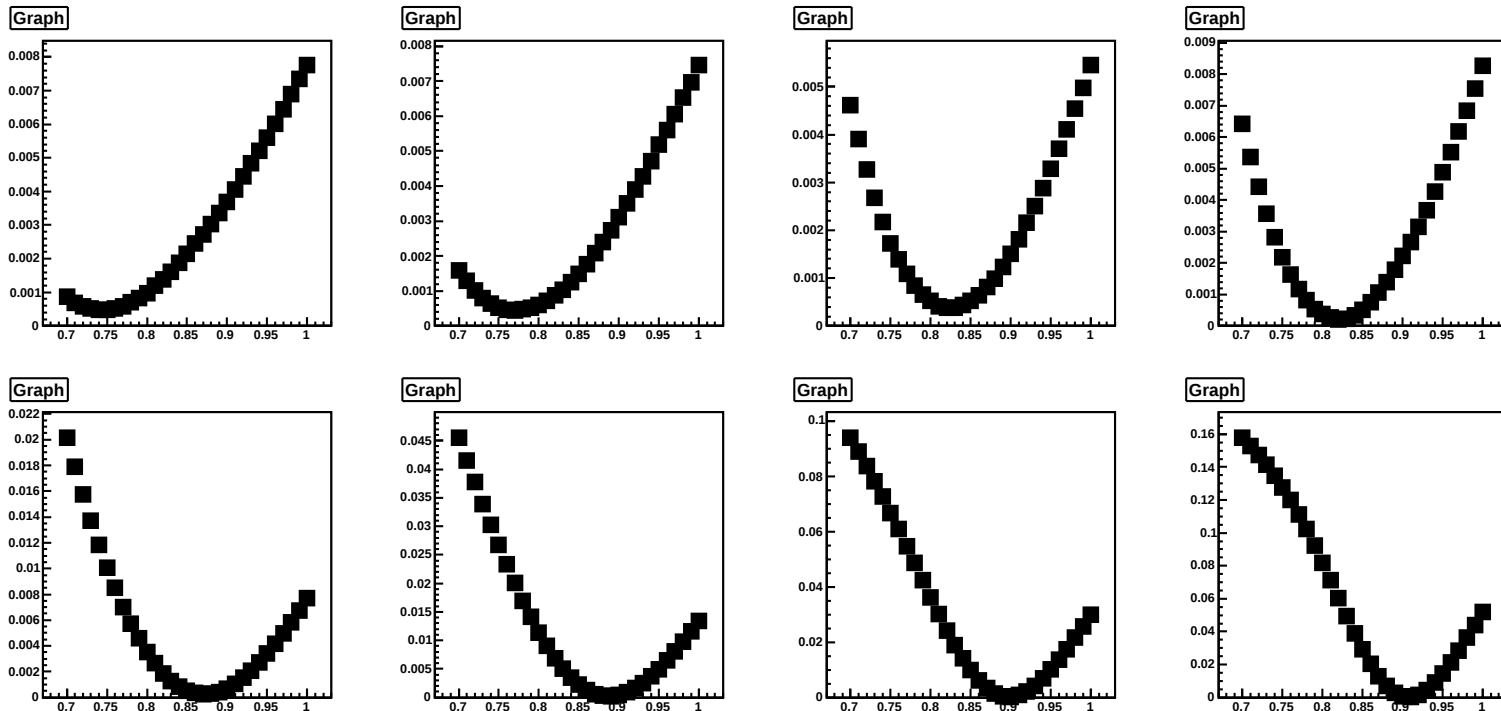
Left : no interlog rejection. Right : interlog rejection.

⇒ The data runs difference disappears but still 10% less energy in the simulation



Layer correction

determining the best scaling factor for each layer in order that the data distribution matches the MC prediction

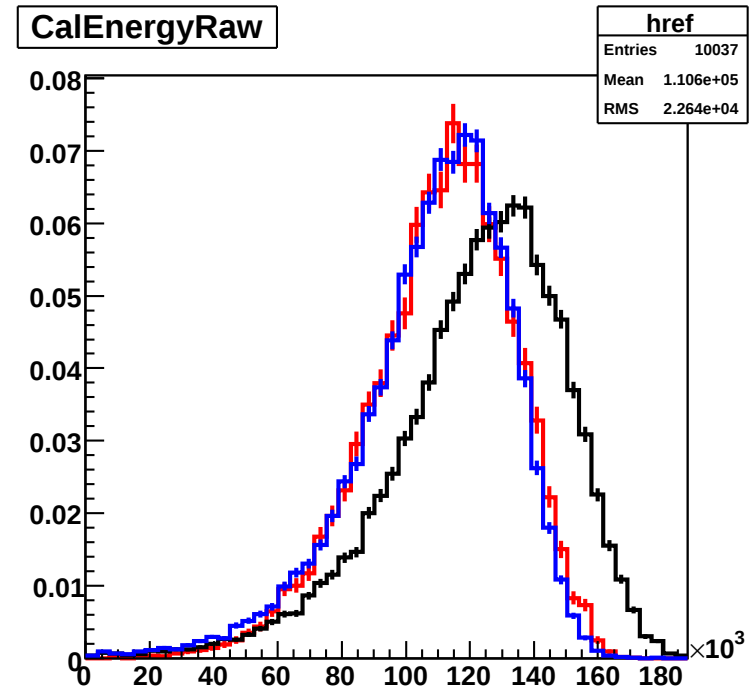
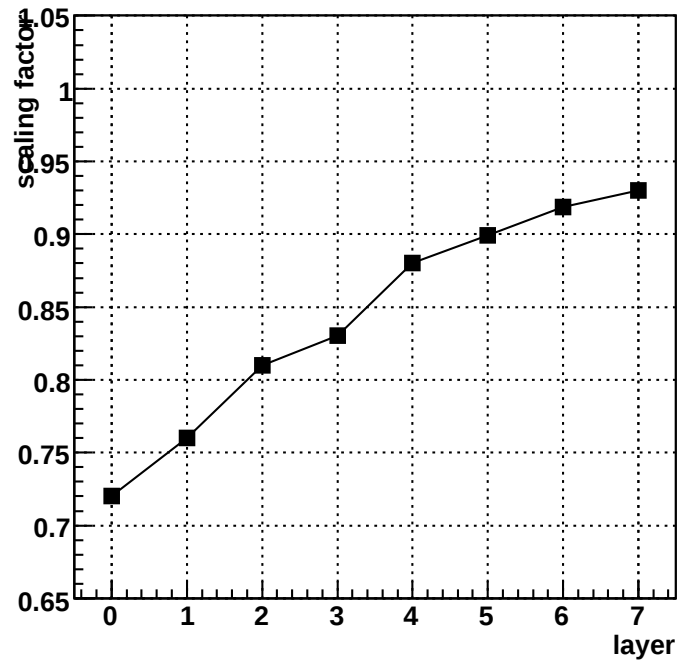


Layer correction at 280 GeV

red : MC (Beamtest-0166)

black : run 700001922

blue : data with layer correction applied

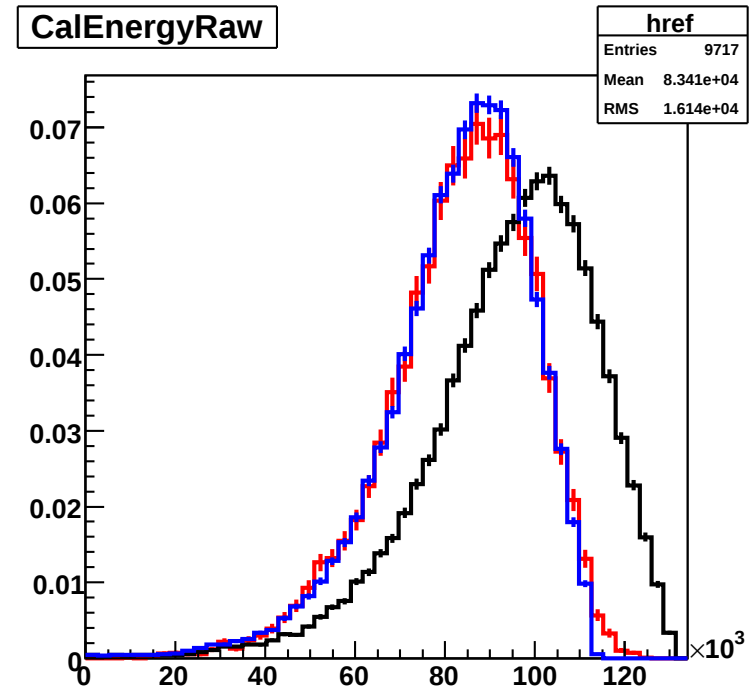
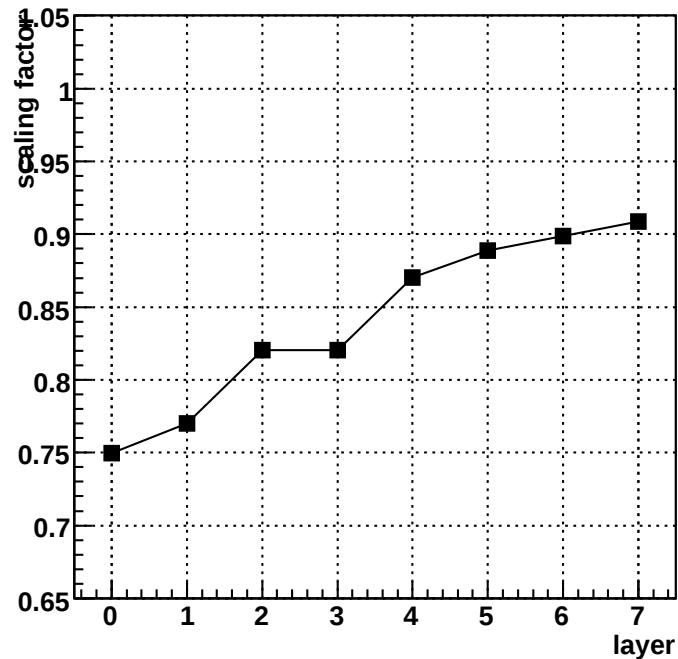


Layer correction at 196 GeV

red : MC (Beamtest-0164)

black : run 700001911

blue : data with layer correction applied

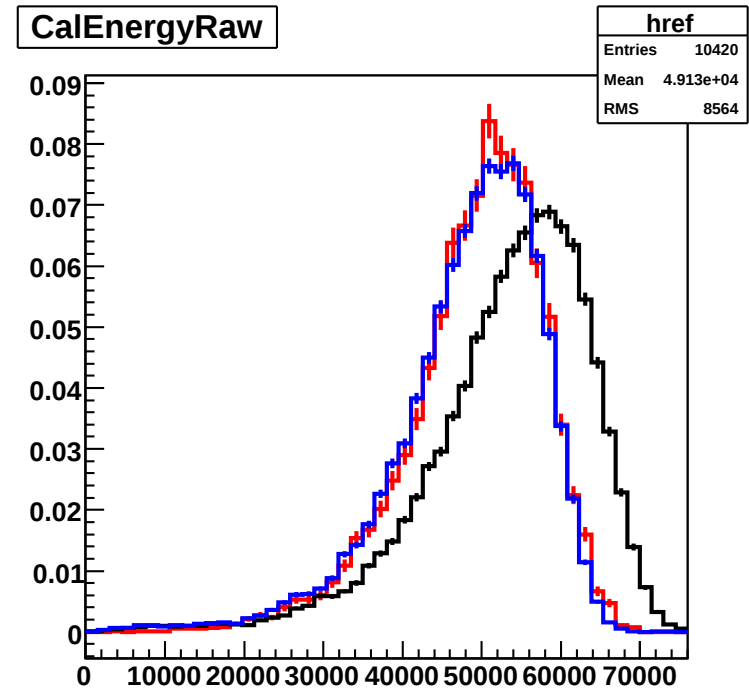
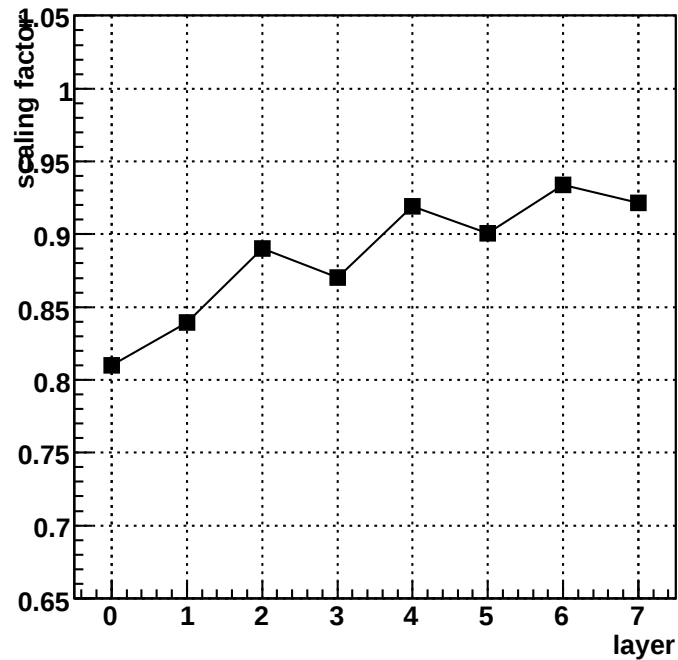


Layer correction at 100 GeV

red : MC (Beamtest-0162)

black : run 700002024

blue : data with layer correction applied

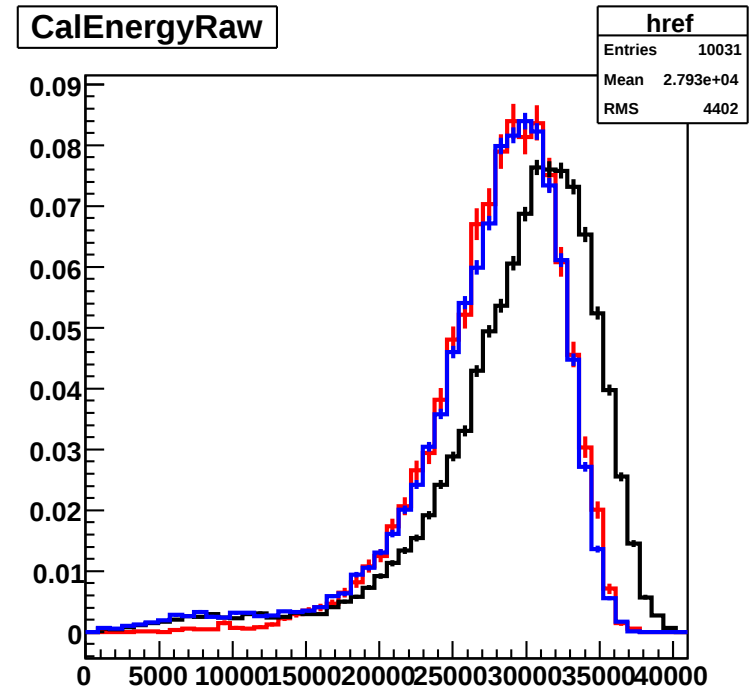
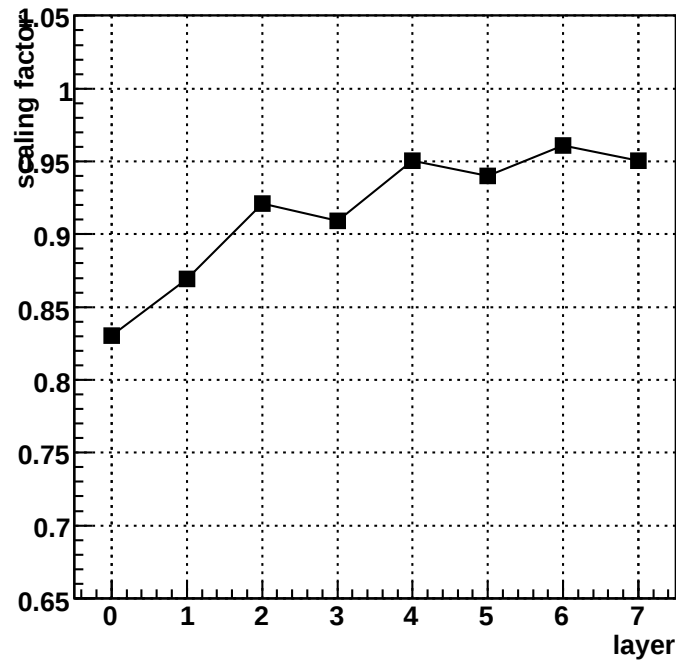


Layer correction at 50 GeV

red : MC (Beamtest-0172)

black : run 700002039

blue : data with layer correction applied

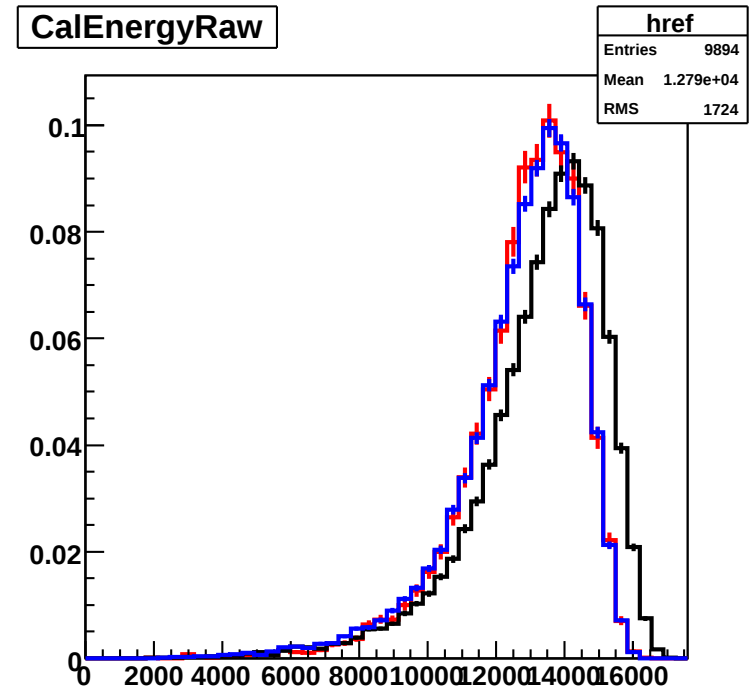
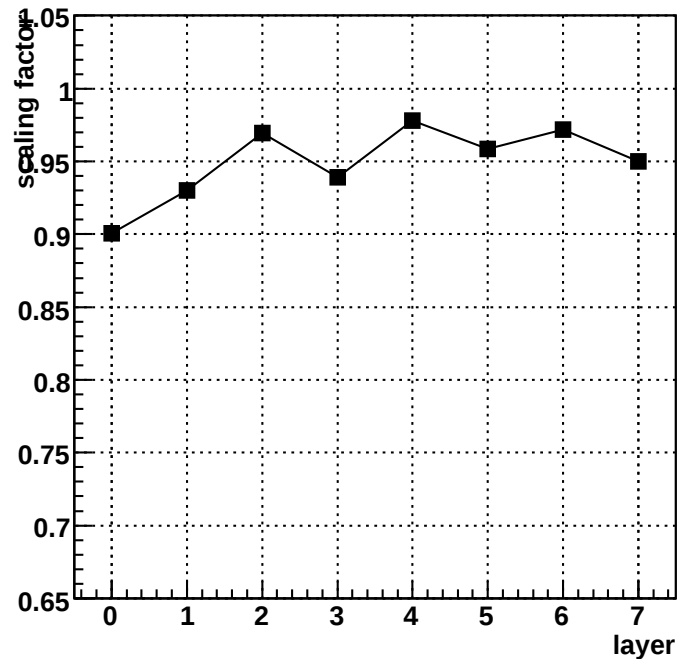


Layer correction at 20 GeV

red : MC (Beamtest-0176)

black : run 700002082

blue : data with layer correction applied

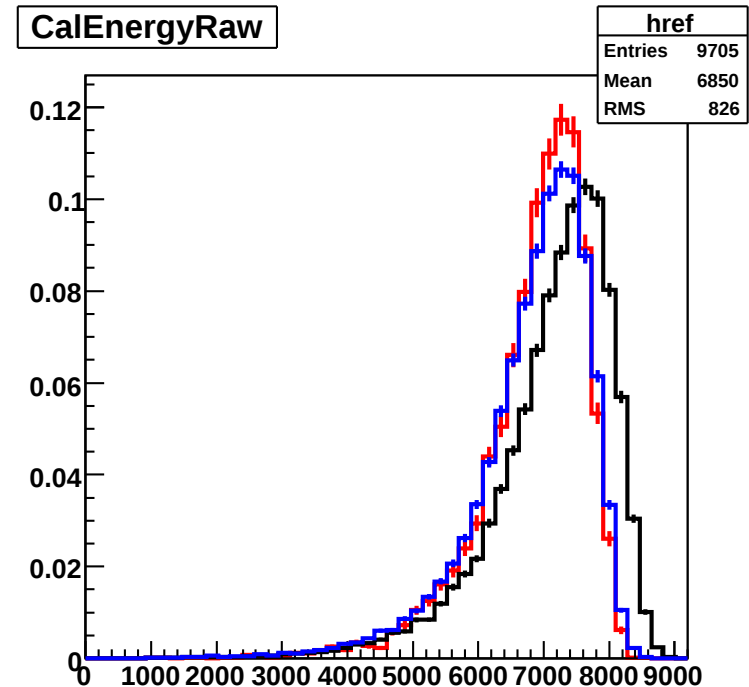
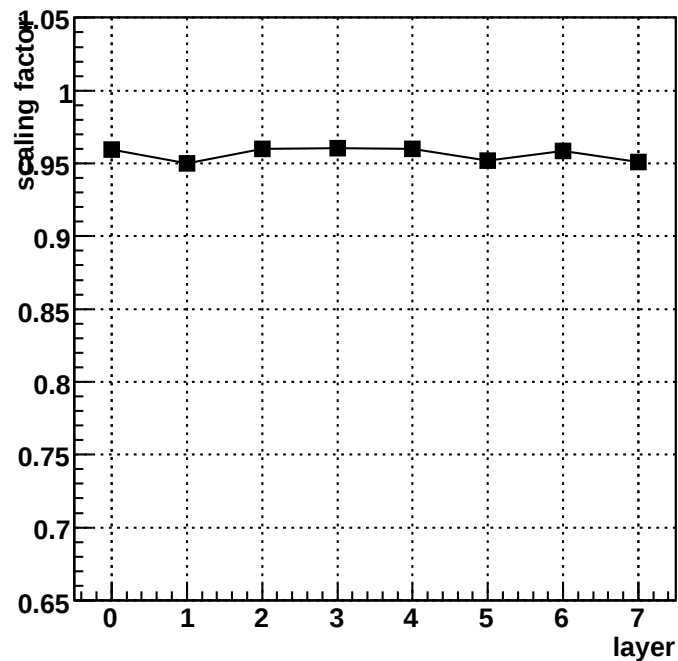


Layer correction at 10 GeV

red : MC (Beamtest-0178)

black : run 700002338

blue : data with layer correction applied

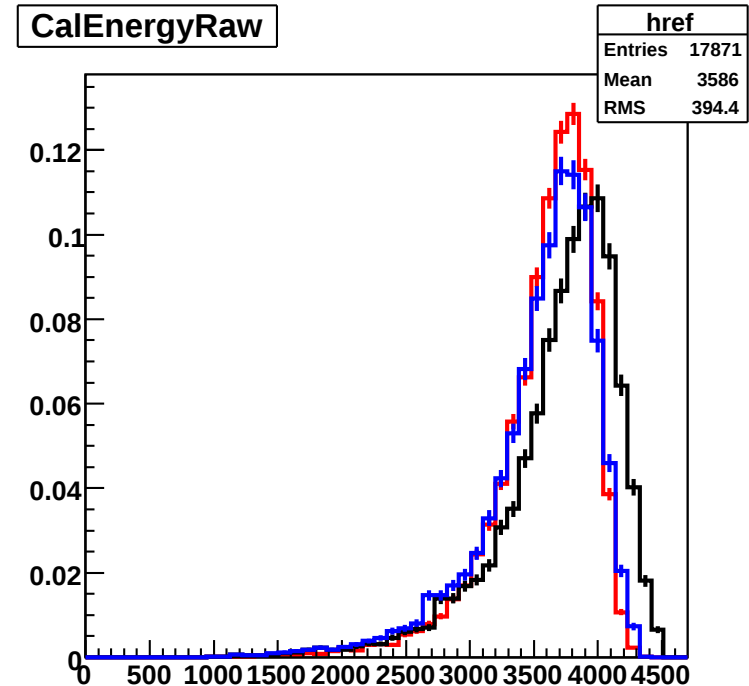
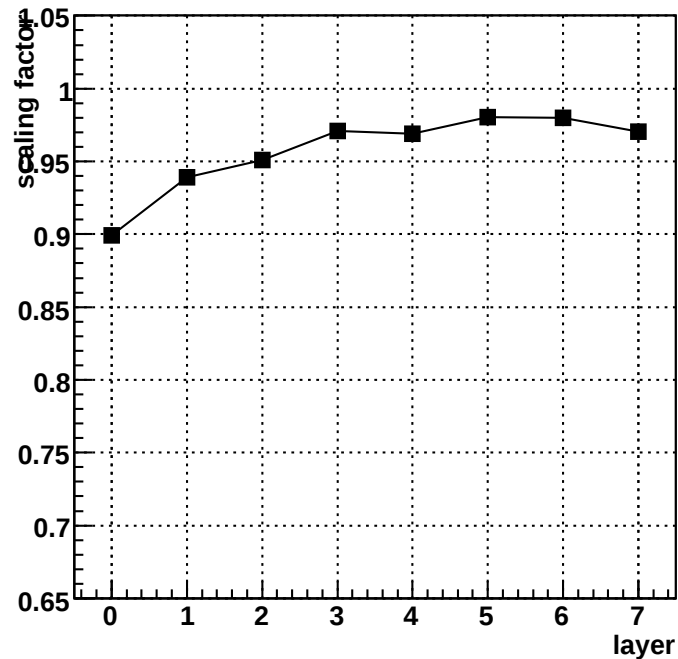


Layer correction at 5 GeV (PS !)

red : MC (Beamtest-0161)

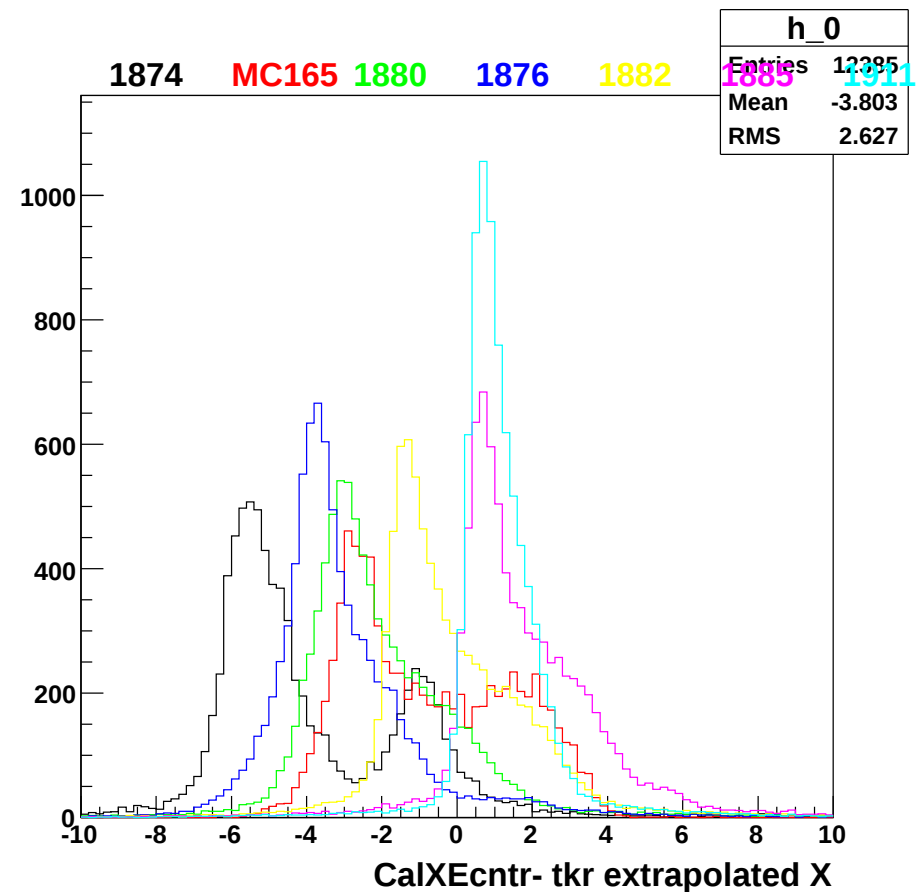
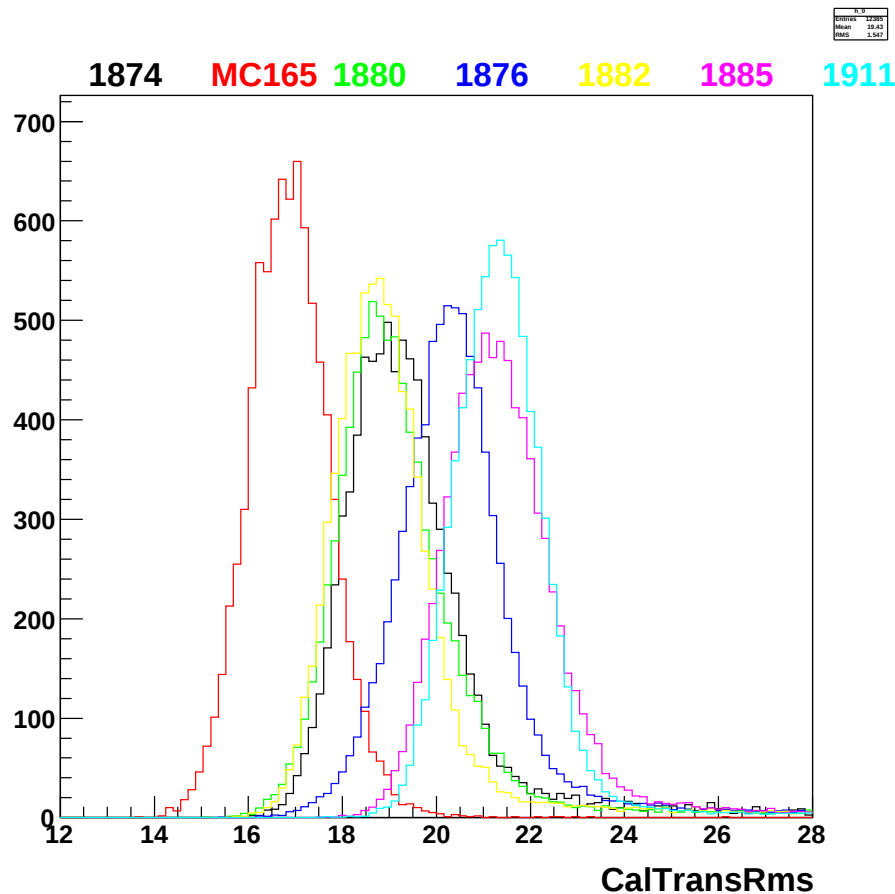
black : run 700001460

blue : data with layer correction applied



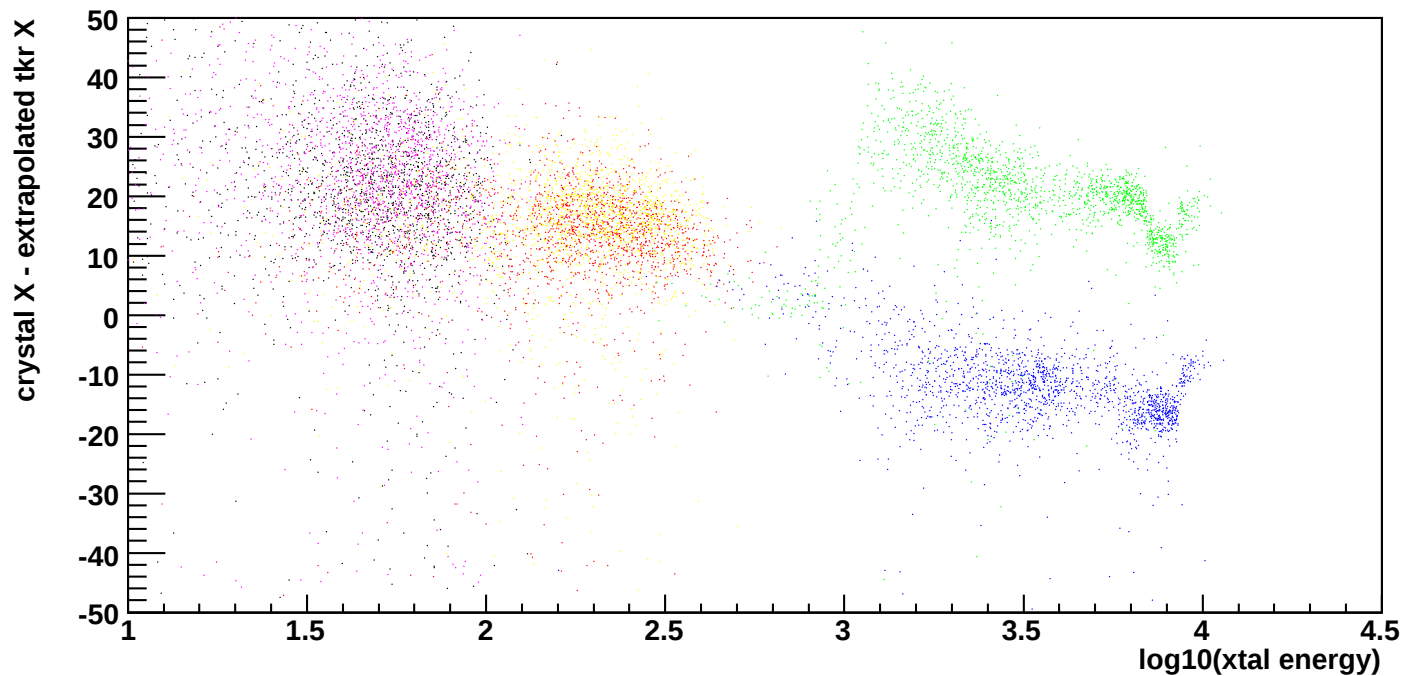
Reminder : Shower measurement

Wrong energy calibration should/could be related to wrong position measurement in the cal



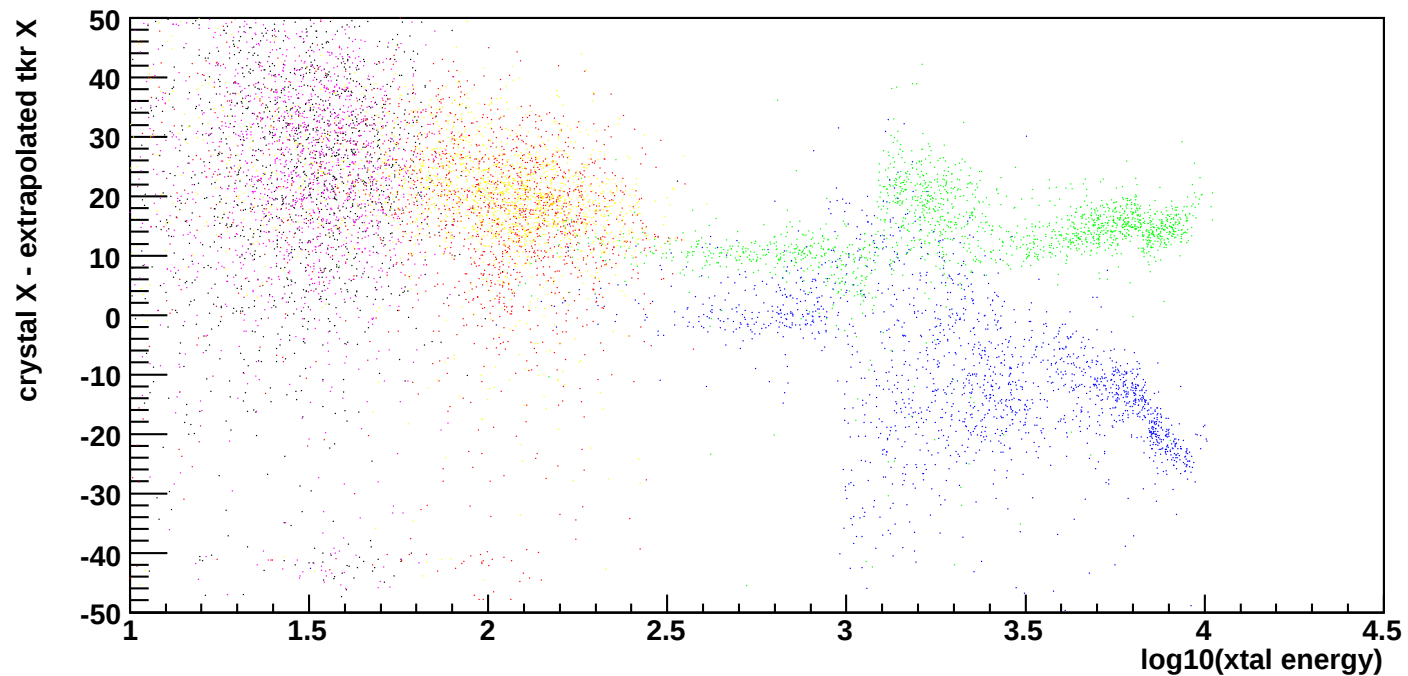
Looking at individual crystals

looking at the position measurement as function of the energy of the crystal
run 700001815, tower 2, layer 6, col from 3 to 8



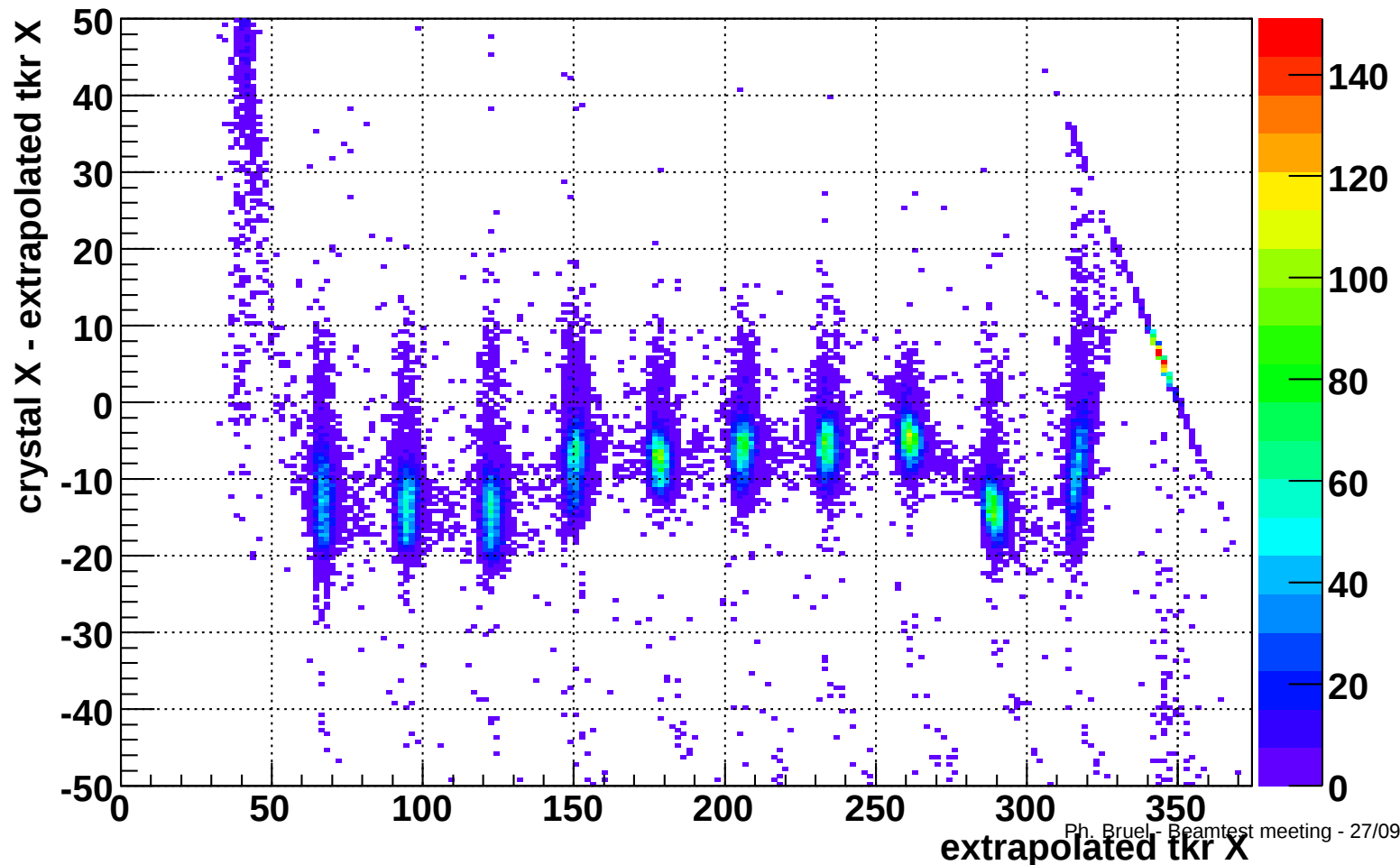
Looking at individual crystals

run 700001815, tower 2, layer 4, col from 3 to 8



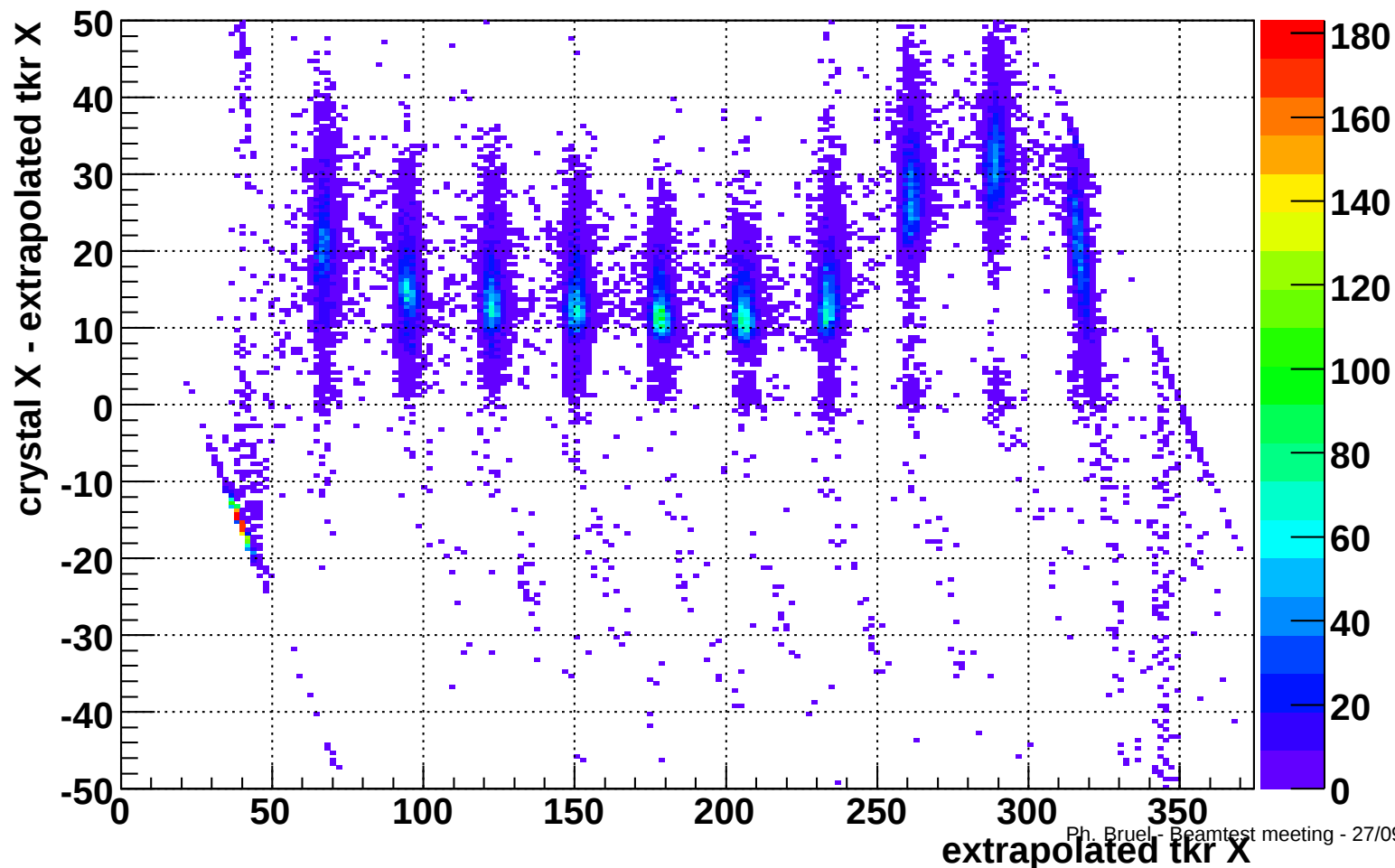
Looking at individual crystals

use 100 GeV calibration runs : scan along X of tower 2 (700001814 to 700001825), look at even layers (longitudinal position = X)
crystal : (tower 2, layer 6, col 6)



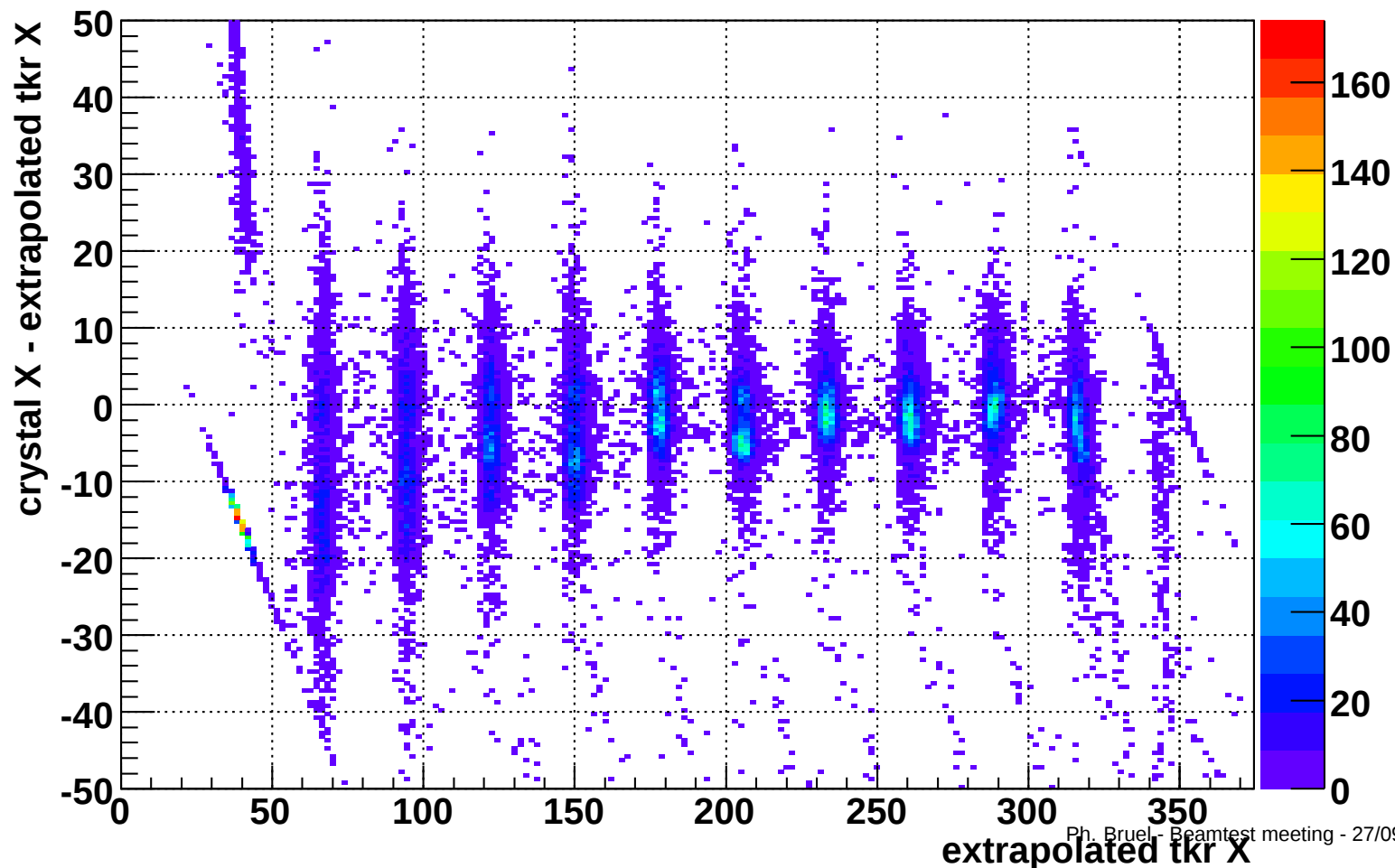
Looking at individual crystals

crystal : (tower 2, layer 6, col 5)



Looking at individual crystals

crystal : (tower 2, layer 4, col 6)



Looking at individual crystals

crystal : (tower 2, layer 4, col 5)

