A few words on some CAL trigger settings

- To calibrate CAL modules, I&T runs 3 online ‘suites’ of ‘scripts’, called calibDAC calibGEN muTrig

- calibDAC includes script called calf_trg_p03:
  1) Loops over FLE DAC values (threshold values);
  2) For each dac setting, loops over increasing charge injection amplitudes;
  3) Records ADC pulseheight when trigger fires >90% of time.
Example: FM102 Y2+ column5

ADC
(pedestal = 846)

Saturation occurs at
4095-846 = 3249 dc

x0.028 MeV/dc
= 91 MeV

DAC setting index

DAC value
0  7  14  63  64  71  92  127
genFLEsettings.py

- Offline calibGenCAL processes .digi files from the suites, includes e.g. genFLEsettings.py which reads in

  relgain.xml, fle2adc.xml  (outputs of online calibDAC)

  adc2nrg.xml, bias.xml  (outputs of offline calibGenCAL)

- And out comes e.g. G5_MeV100_FM102_CAL_fle.xml

- Use python+hippo to plot the contents…  (thanks Larry & Warren)
FM102 FLE DAC settings

e.g. Y2+ column 5 saturates at 92 dac (91 MeV), algorithm pegs it to 127, but 100 MeV is ~96. Algorithm being fixed.

(Only these 3 channels in 4 installed towers.) (Other two are X2- col 9, Y3- col 0).

Crystal index (0-192, since an FLE at both ends)