NectarCAM preparation meeting

Thomas Tavernier

IRFU / CEA

thomas.tavernier@cea.fr

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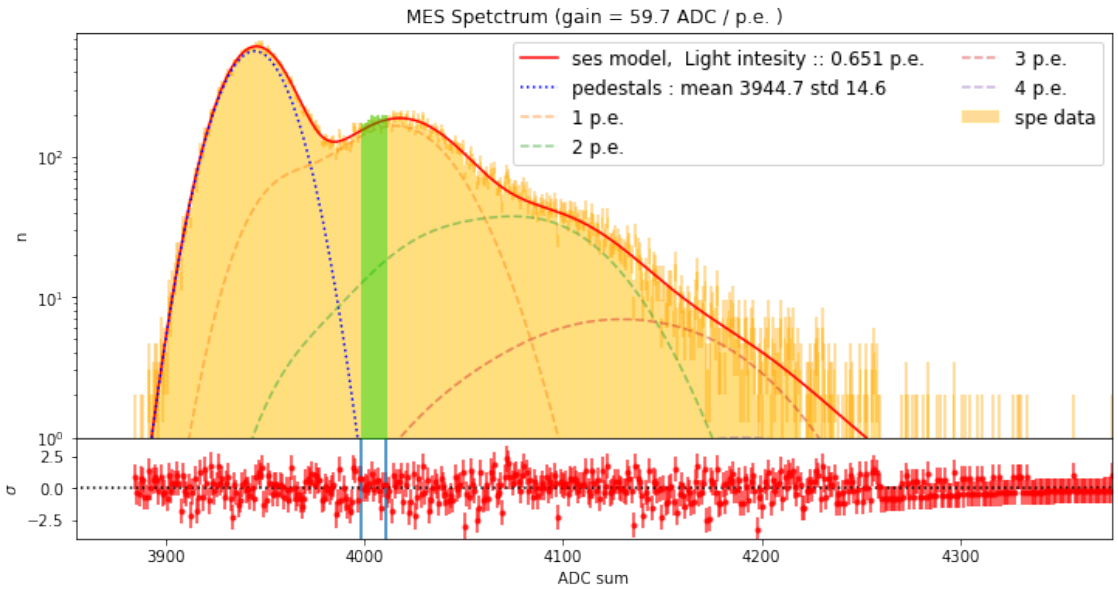
pulse shape events selection

Charge selection

- 1 p.e. +/- 10 %
- $<$ 1% of pedestal evt
- $<$ 1% of 3 p.e. evt
- $\sim$ 10 % of 2 p.e. evt

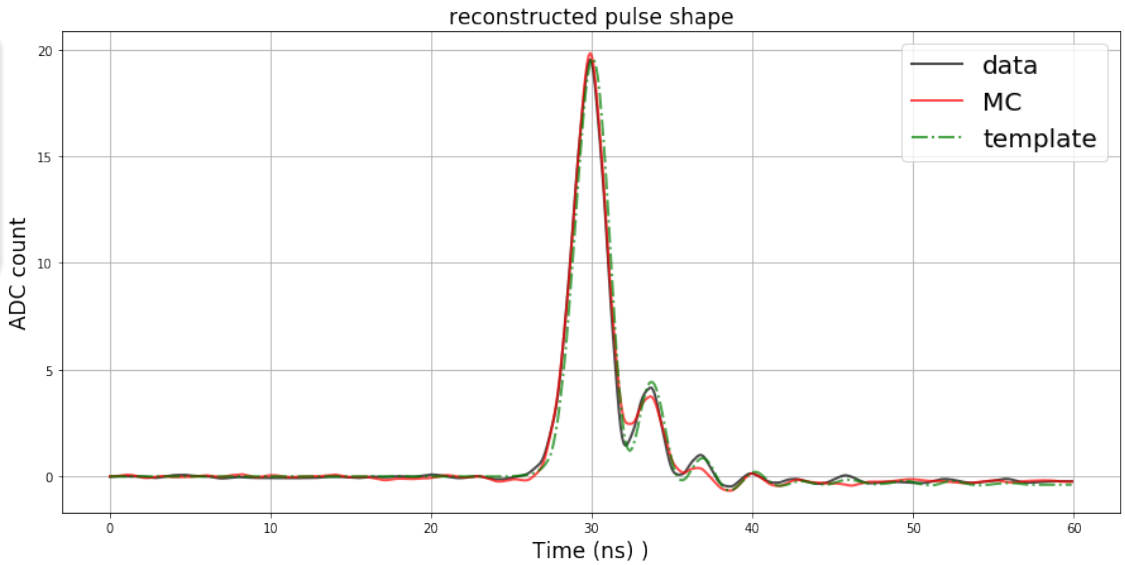


5000 events from all pixels
-> rescaled in time

SPE pulse shape comparison

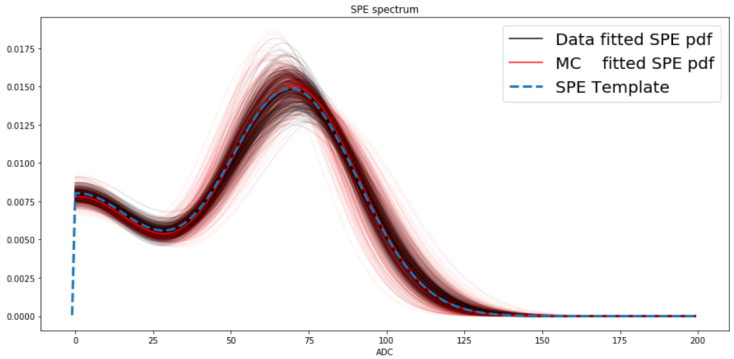
- 1 p.e. +/- 10 %
- Good agreement between MC and NectarCAM data.

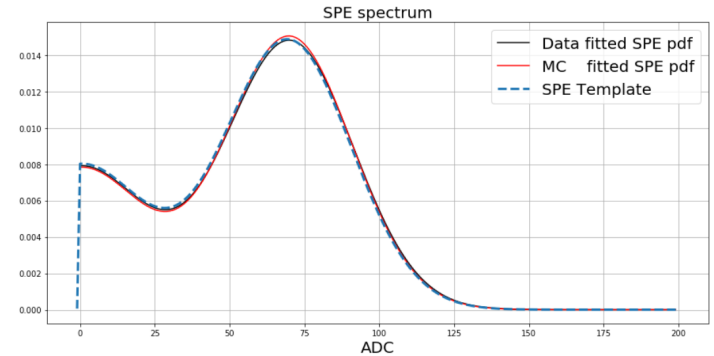
5000 events from all pixels



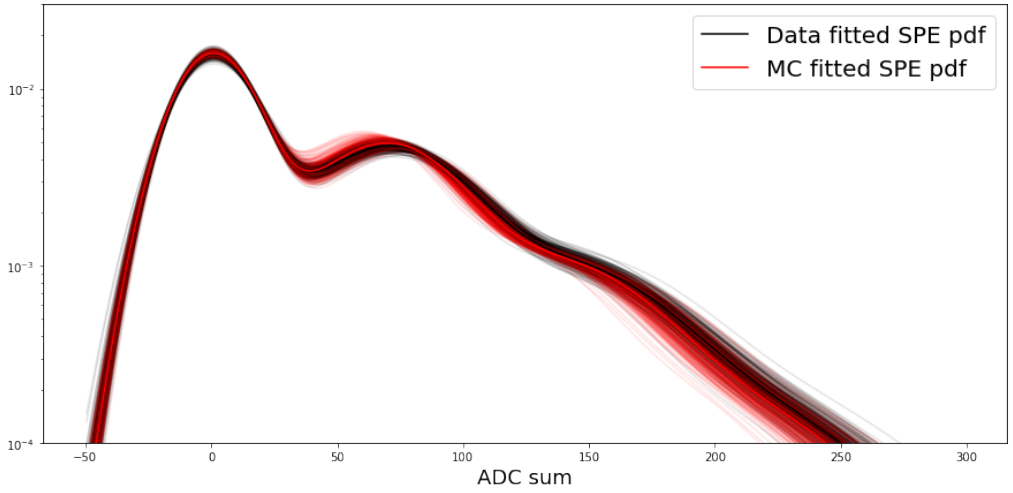
Ses comparison

- Good agreement between MC and NectarCAM data.

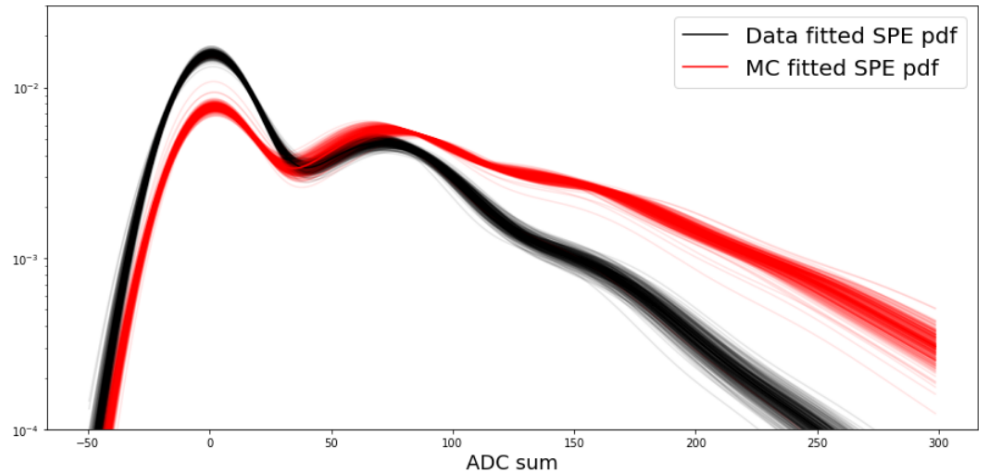




last spe template



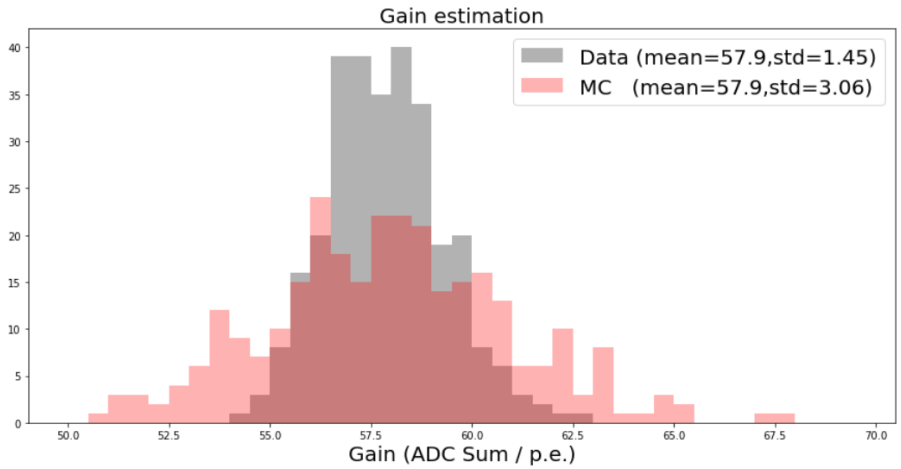
new spe template



Ses comparison

New spe pdf parameters (Taken from Sami's talk in Barcelona)

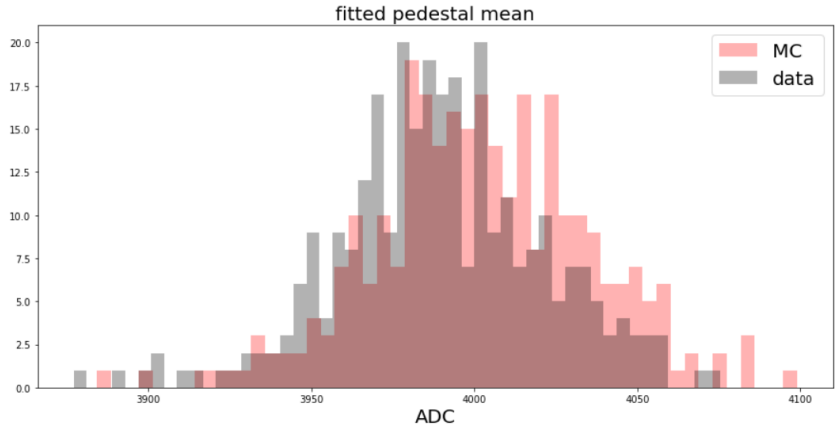
- Very good agreement for the mean reconstructed gain
- wider dispersion in the gain distribution in the MC gain distribution

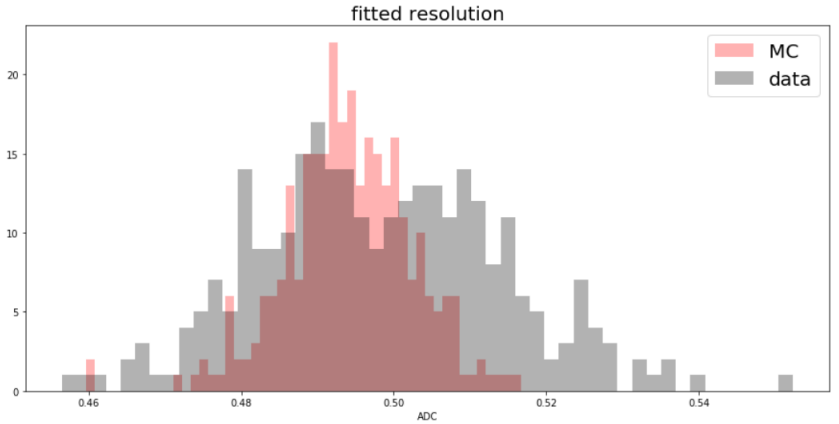


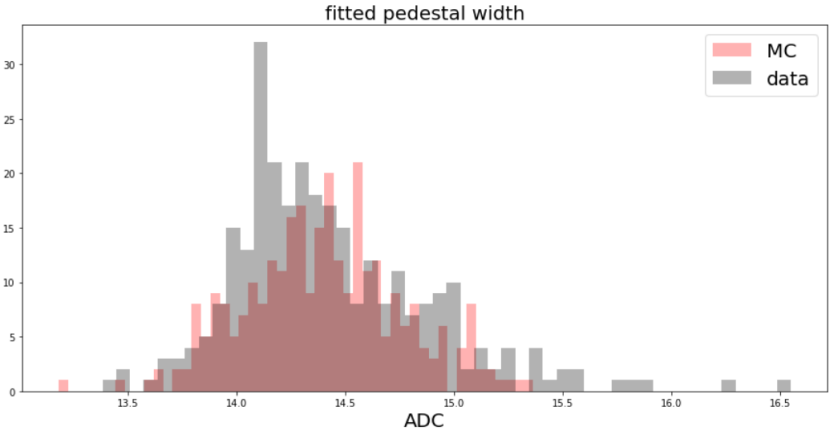
$\frac{G_{\text{reco}}}{G_{\text{sim}}}$ distribution

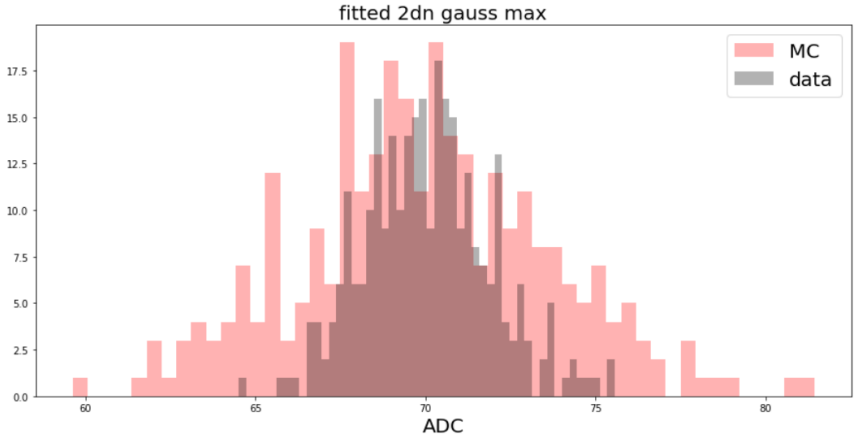
- how is really define the gain in the simulation ?
- ~~statistic error $\sigma \sim 8\%$~~
- statistic error $\sigma \sim 3.7\%$! !

MES fitted parameters



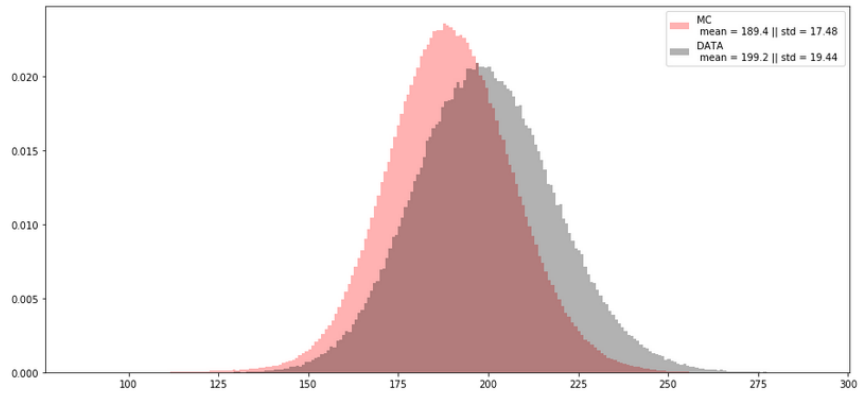


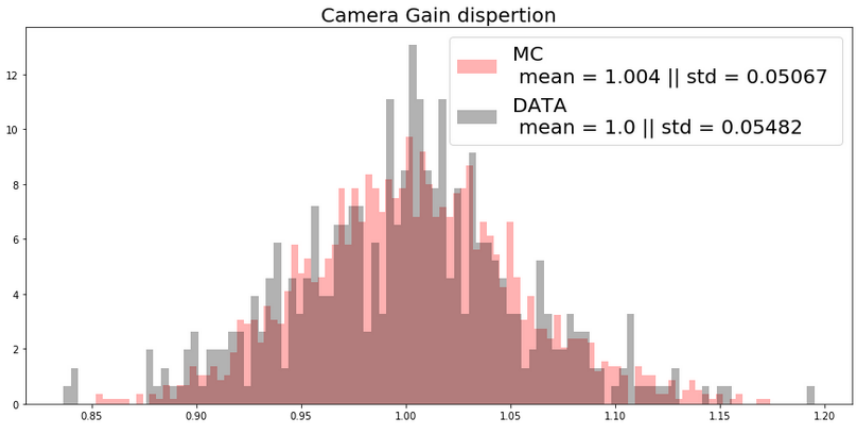


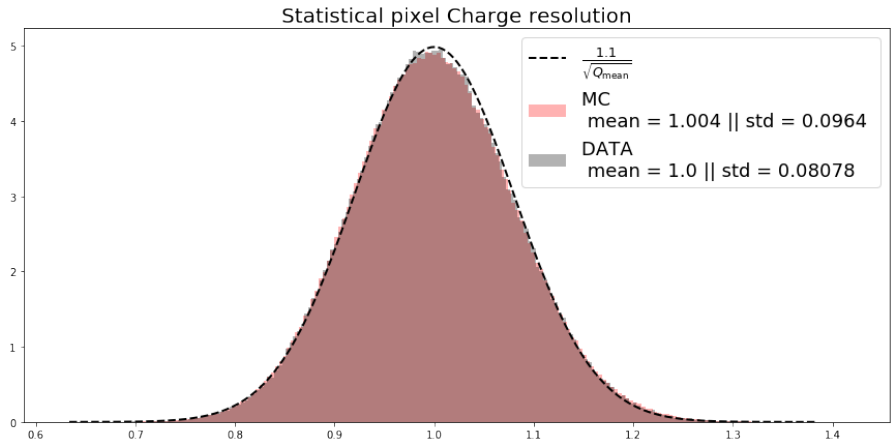


results from the MC Flat fields run

- comparing the MC FF run and a FF run at similar intensity :
  - statistical dispersion seems to agree very well
  - as well as the channel to channel dispersion.

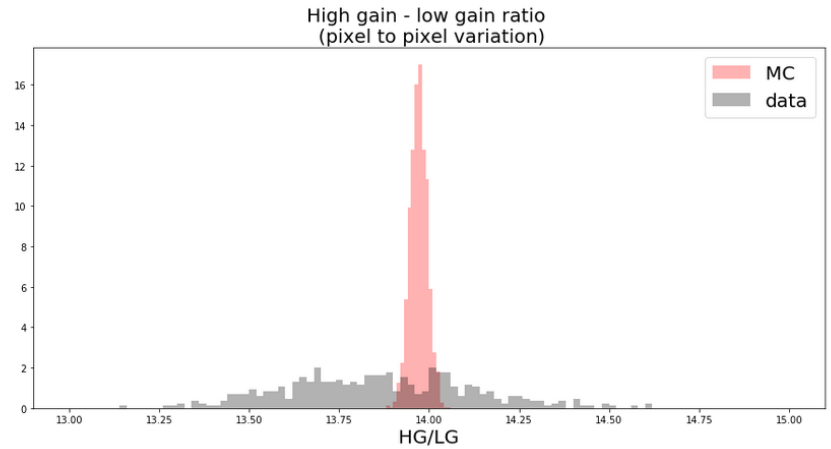


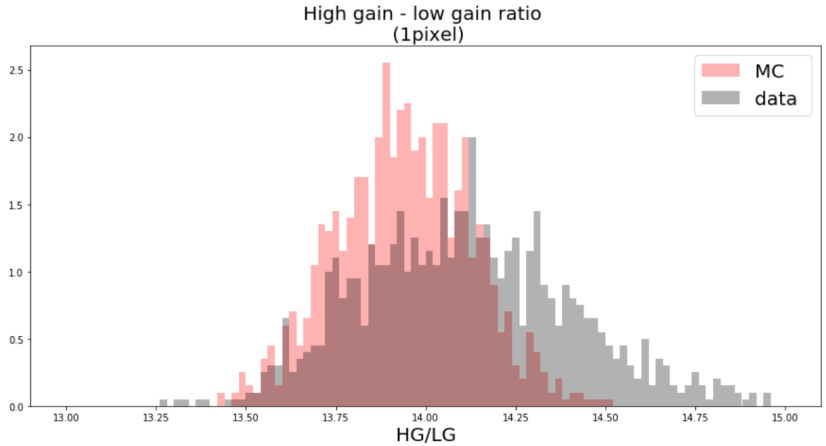




High gain / low gain ratio

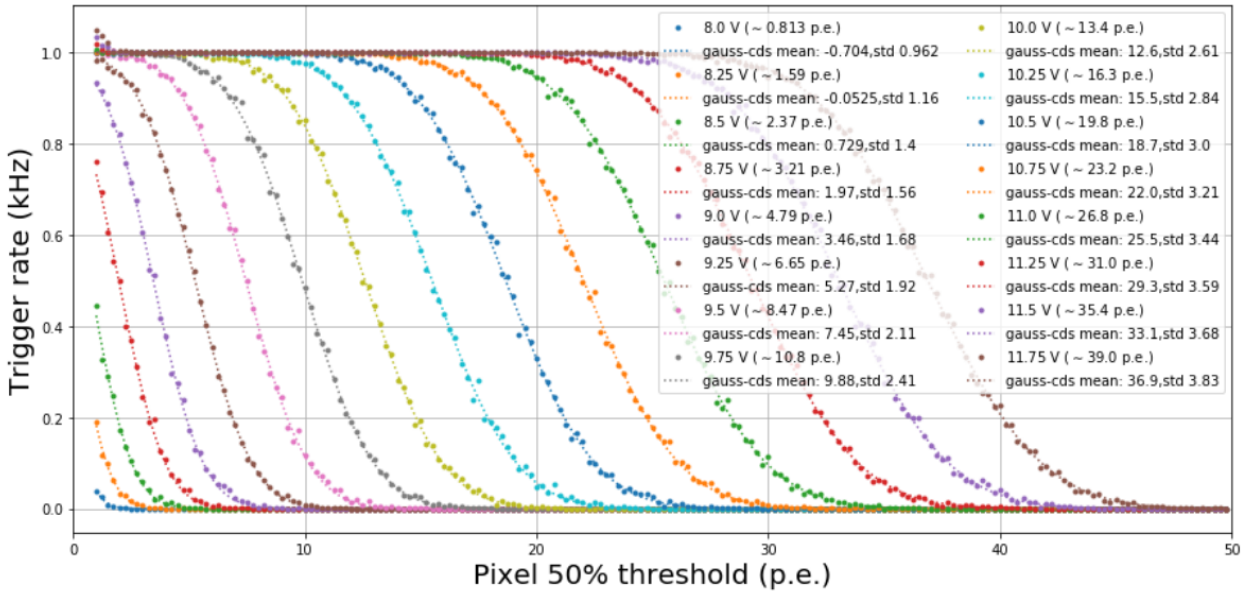
- comparing the MC FF run and a FF run at similar intensity :
  - high gain / low gain ratio dispersion is much wider in the camera data
- mean value :
  - MC : 13.98
  - Data : 17.87
- dispersion a bit more important in the data for individual pixels
- at the end not a capital issue since the HG/GL will be calibrated trough Flat field run for the data analysis



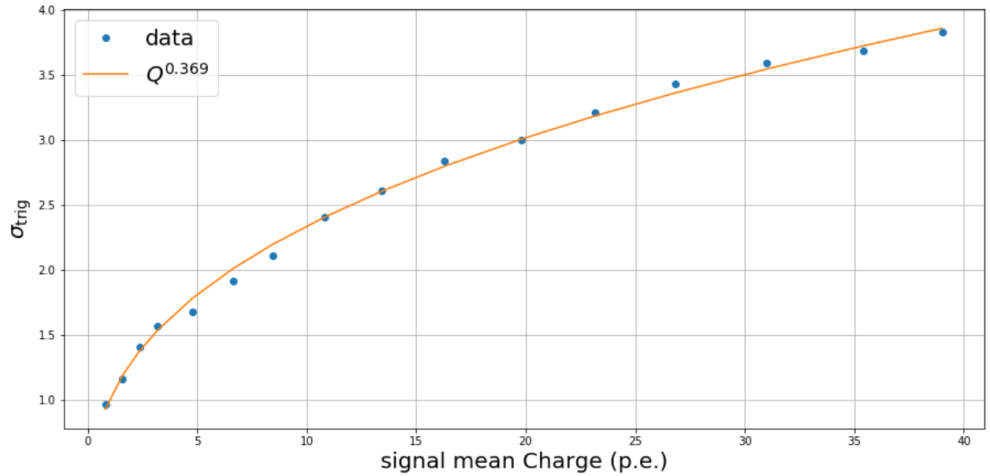


Trigger

- L1 scaler of only one module (6 pixels)
- Well describe by a normal cumulative distribution.



- is there theoretical expectation for this curve
- (I failed to find one)



Overview

- Freezing the last version of the Waveform & spe pdf Template as well as most of the readout parameters seems reasonable.