

## EASY\_Charge\_Analysis.py

Program to calculate charge deposition in ADCs and Energy, after calibration. The program also plots the common mode noise, hit map, pedestal, noise, number of clusters, and number of strips in cluster.

To run the program:

```
>> python EASY_Charge_Analysys.py Data-file.h5 [options]
```

Options:

```
-h, --help      show this help message and exit
--gauss         It will try a gauss fit to the data
--landau        It will try a Landau-like fit to the data (default)
--tmin=TMIN     Minimum TDC to be considered in the analysis (default=0.)
--tmax=TMAX     Maximum TDC to be considered in the analysis (default=100.)
--fmin=FMIN     Minimum ADC for the fit (default=100)
--fmax=FMAX     Maximum ADC for the fit (default=250)
--ADCmin=ADCMIN Minimum ADC for the plot (default=0)
--ADCmax=ADCMAX Maximum ADC for the plot (default=600)
--ADCbin=ADCBIN Binning for ADC plot (default=6)
--Emin=EMIN     Minimum energy for the fit (default=70)
--Emax=EMAX     Maximum energy for the fit (default=200)
--Eplotmin=EPLOTMIN Minimum Energy for the plot (default=0)
--Eplotmax=EPLOTMAX Maximum Energy for the plot (default=300)
--Eplotbin=EPLOTBIN Binning for Energy plot (default=3)
--label=LABEL   Label for the plots (default=Sr-90)
--s/n=SNCUT     Signal/Noise cut (default=5)
--PE0=PE0       Parameter 0 to convert ADCs to Energy (default=-270.13)
--PE1=PE1       Parameter 1 to convert ADCs to Energy (default=160.904)
--PE2=PE2       Parameter 2 to convert ADCs to Energy (default=0.174026)
--PE3=PE3       Parameter 3 to convert ADCs to Energy (default=-0.000734166)
--PE4=PE4       Parameter 4 to convert ADCs to Energy
                 (default=.00000187504)
```