NAME

pyFAI-average – image preprocessing tool

DESCRIPTION

usage: pyFAI−average [options] [options] −**o** output.edf file1.edf file2.edf ...

This tool can be used to average out a set of dark current images using mean or median filter (along the image stack). One can also reject outliers be specifying a cutoff (remove cosmic rays / zingers from dark)

positional arguments:

FILE   Files to be processed

optional arguments:

−**h**, −−**help**

show this help message and exit

−**V**, −−**version**

show program's version number and exit

−**o** OUTPUT, −−**output** OUTPUT

Output/ destination of average image

−**m** METHOD, −−**method** METHOD

Method used for averaging, can be 'mean'(default) or 'min', 'max', 'median', 'sum', 'quantiles'

−**c** CUTOFF, −−**cutoff** CUTOFF

Take the mean of the average +/− cutoff * std_dev.

−**F** FORMAT, −−**format** FORMAT

Output file/image format (by default EDF)

−**d** DARK, −−**dark** DARK

Dark noise to be subtracted

−**f** FLAT, −−**flat** FLAT

Flat field correction

−**v**, −−**verbose**

switch to verbose/debug mode

−**q** QUANTILES, −−**quantiles** QUANTILES

average out between two quantiles −**q** 0.20−0.90

It can also be used to merge many images from the same sample when using a small beam and reduce the spotty−ness of Debye−Sherrer rings. In this case the "max−filter" is usually recommended.