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' ,
   'cutoff', 'std'. Multiple filters can be defined with ',' separator.

   −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

   −−monitor−name MONITOR_KEY

   Name of the monitor in the header of each input files. If defined the contribution of each input file
   is divided by the monitor. If the header does not contain or contains a wrong value, the contribu-
   tion of the input file is ignored. On EDF files, values from 'counter_pos' can accessed by using the
   expected mnemonic. For example 'counter/bmon'.

   −−quiet

   Only error messages are printed out

   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.