NAME
diff_tomo – diff_tomo

DESCRIPTION
usage: usage: diff_tomo [options] −**p** ponifile imagefiles* If the number of files is too large, use double quotes like "*.edf"

Azimuthal integration for diffraction tomography. Diffraction tomography is an experiment where 2D diffraction patterns are recorded while performing a 2D scan, one (the slowest) in rotation around the sample center and the other (the fastest) along a translation through the sample. Diff_tomo is a script (based on pyFAI and h5py) which allows the reduction of this 4D dataset into a 3D dataset containing the rotations angle (hundreds), the translation step (hundreds) and the many diffraction angles (thousands). The resulting dataset can be opened using PyMca roitool where the 1d dataset has to be selected as last dimension. This file is not (yet) NeXus compliant. This tool can be used for mapping experiments if one considers the slow scan direction as the rotation.

positional arguments:
FILE   List of files to calibrate

optional arguments:

−h, **−−help**
> show this help message and exit

−V, **−−version**
> show program's version number and exit

−o FILE, **−−output** FILE
> HDF5 File where processed sinogram was saved, by default diff_tomo.h5

−v, **−−verbose**
> switch to verbose/debug mode, defaut: quiet

−P FILE, **−−prefix** FILE
> Prefix or common base for all files

−e EXTENSION, **−−extension** EXTENSION
> Process all files with this extension

−t NTRANS, **−−nTrans** NTRANS
> number of points in translation. Mandatory

−r NROT, **−−nRot** NROT
> number of points in rotation. Mandatory

−c NDIFF, **−−nDiff** NDIFF
> number of points in diffraction powder pattern, Mandatory

−d FILE, **−−dark** FILE
> list of dark images to average and subtract

−f FILE, **−−flat** FILE
> list of flat images to average and divide

−m FILE, **−−mask** FILE
> file containing the mask, no mask by default

−p FILE, **−−poni** FILE
> file containing the diffraction parameter (poni−file), Mandatory

−O OFFSET, **−−offset** OFFSET
> do not process the first files

−g, **−−gpu**
> process using OpenCL on GPU

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