

A faint, light gray X-ray diffraction (XRD) pattern is visible in the background on the left side of the slide. It shows several distinct peaks of varying heights and widths, characteristic of a crystalline material's diffraction pattern.

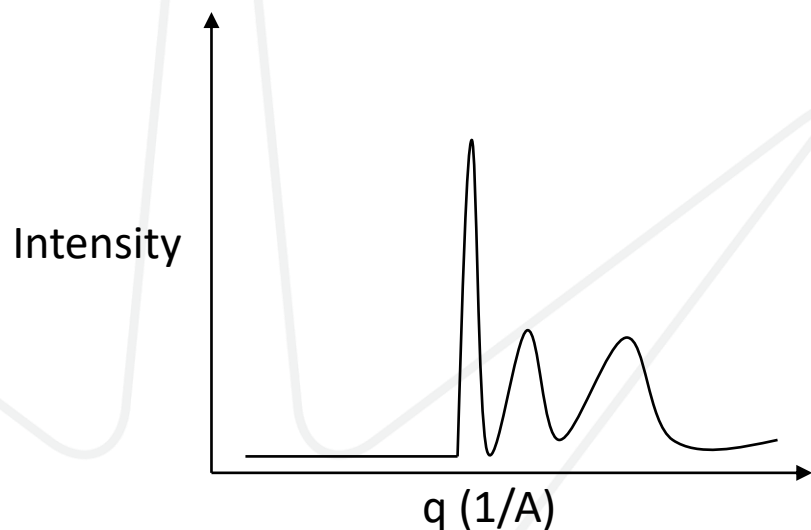
XRD Analysis Options

Fast overview

I14 Beamline

Autoprocessing

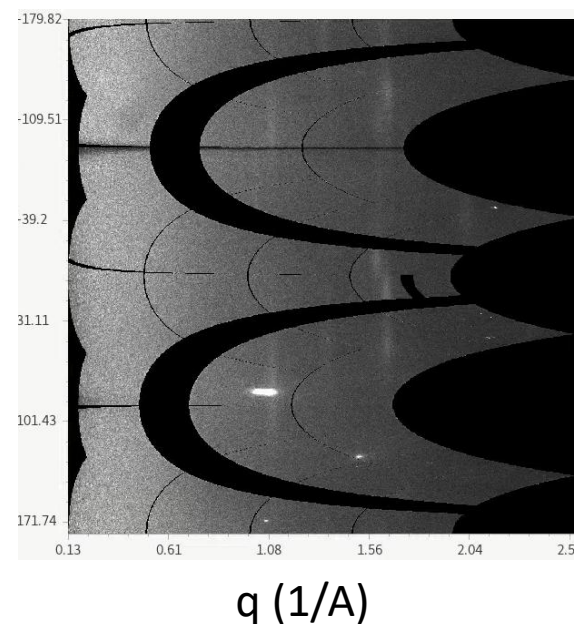
- 1D



Graph per pixel – no orientation information

- 2D

Azimuthal angle

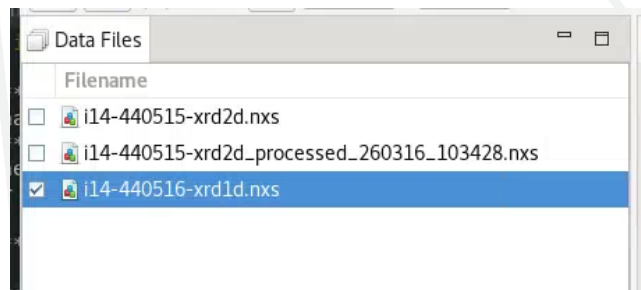


Detector image per pixel – easier to see what is on the same ring, and orientations.

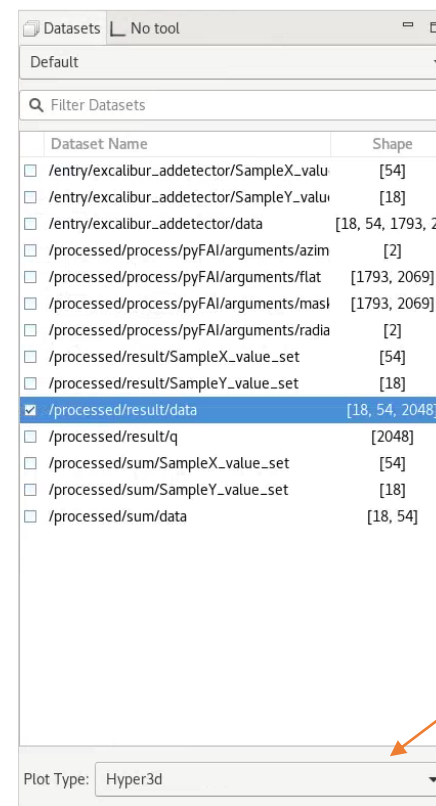
Also option to sum all frames:
Produces `_summed.nxs` files

How to look at the data in Dawn – 1D

Load data using File>Open file

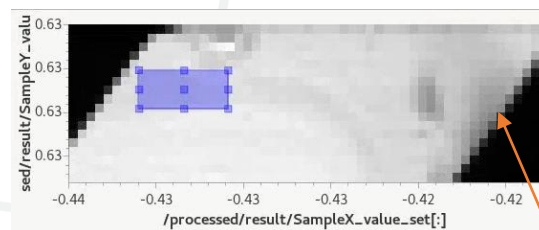
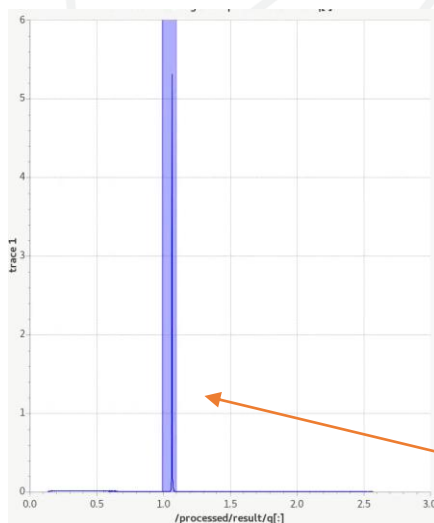


Check the box to select the 1D data



Select result/data

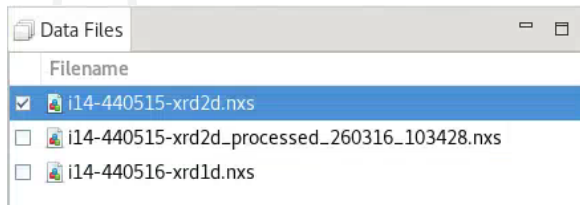
Select Hyper3D



Adjust the blue boxes to select a particular peak or a particular area – be patient!

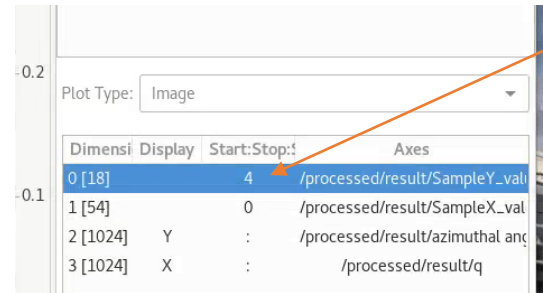
How to look at the data in Dawn 2D

Load data using File>Open file



Check the box to select the 2D data

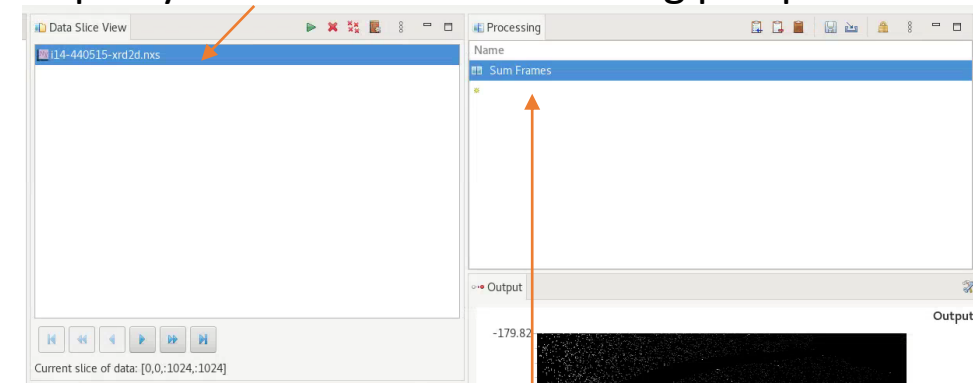
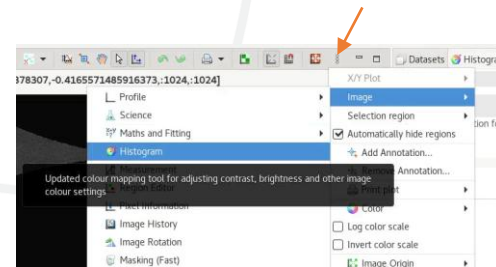
To peruse
the data
per pixel



Click on the Start:Stop value
to scan through the pixels
using the scroll bar

To look at
all pixels
together

Open your data in the Processing perspective



Sum all the frames

Save in your processing folder

Open in data vis and adjust using the histogram



The autoprocessing didn't run:

Log in to NoMachine

Run:
module load i14webapp/
Then:
./setup_web_app_i14.sh

Copy and paste the web address
that appears into a browser
(don't use CTRL+C)

Choose XRD1D or 2D
Single scan, or batch

Fill in your parameters

Upload your config file
(the .yaml file in your
calibration folder)

Background can be left
empty unless you need
removal

The screenshot shows a web form for submitting a process. It has several sections: 'Select workflow' with radio buttons for 'Single Scan', 'Multiple Scans', and 'Batch processing', and a dropdown for 'Processing workflow' set to 'XRD1D'; 'Select data source' with a dropdown for 'Experiment folder' and a text input for 'Scan number' set to '0'; 'Set output folder name' with a text input for 'Output folder name' set to 'auto'; 'Select configuration file' with a blue 'UPLOAD FILE' button and a message 'Selected file: pylai_live_cm40631-2_centre.yaml'; 'Override calibration file parameters' with text inputs for 'Calibration path', 'Detector mask path', and 'Flat field path'; and 'Background Task' with a dropdown set to 'Exponential'. A blue 'SUBMIT' button is at the bottom.

SUBMIT Submit

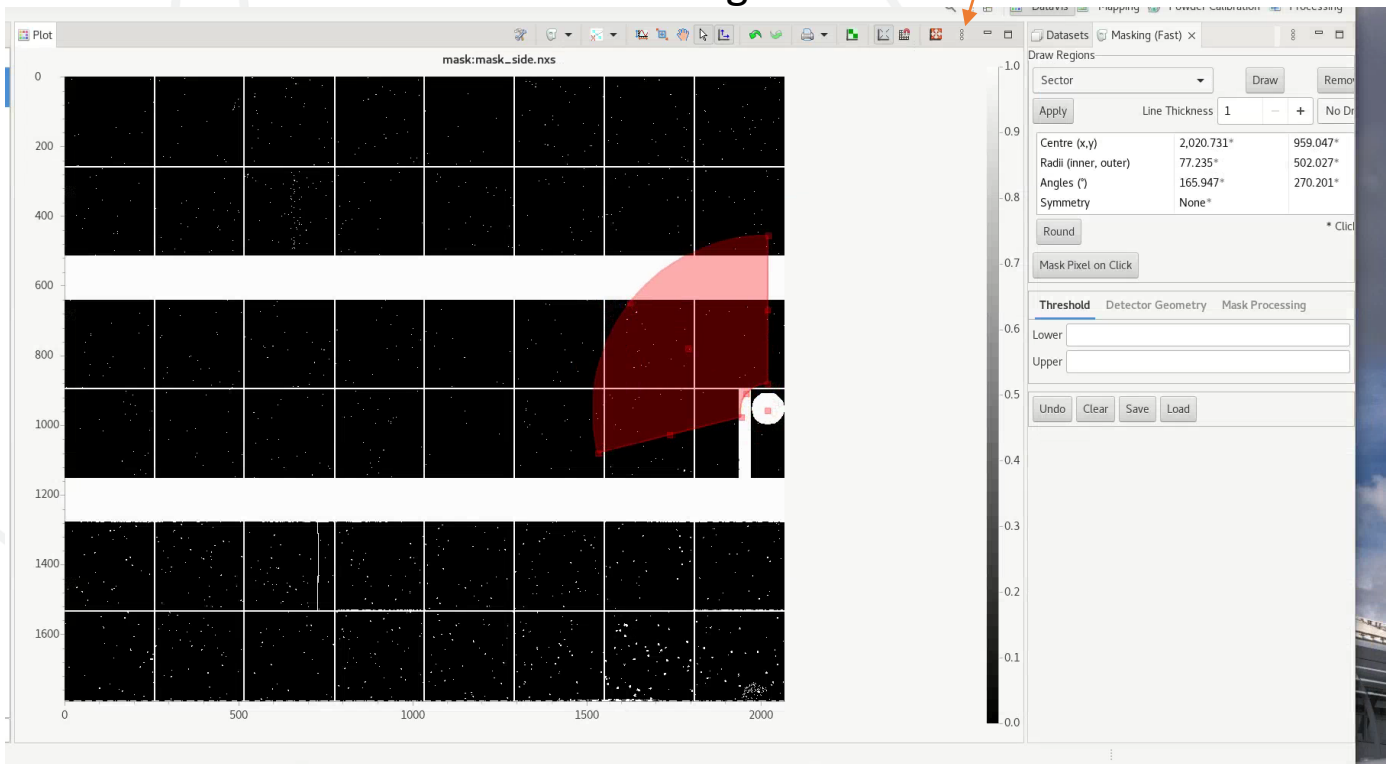
Launch the I14 Process
Submitter

I14 FastAPI Data Analysis Portal

The screenshot shows a web interface with a section titled 'Non-Interactive Processing' containing a large green button labeled 'Launch I14 Process submitter'. Below it is a section titled 'JupyterHub' with a green bar.

Other processing in DAWN

Select a sector - masking



Select a sector – via Processing

