Contribution ID: **14** Type: **not specified**

XRF image de-noising

The project is about de-noising of xray fluorescence (XRF) images from the P06 scanning microscopy beamline. While several contrast modes are available at P06, the main workhorse of the beamline is xray fluorescence. An important figure of merit for the beamline is how quickly images can be acquired. Acquiring faster comes at the cost of nosier images. We would like to investigate whether we can improve on the current trade-off between noise and speed by incorporating sample specific spatial information to reduce image noise. We envision the solution to be neural network based, in the form of auto-encoder networks, however, the student will be free to investigate other approaches as well.

Group

FS-PETRA-P06

Project Category

A6. Theory and computing

Special Qualifications

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