



Contribution ID: 60

Type: Oral

Mantid Imaging

Thursday, September 22, 2022 4:00 PM (20 minutes)

Neutron imaging instruments, such as IMAT at ISIS in the UK, require dedicated software for pre-processing projection data and reconstructing it into 3D volumes using filtered back projection or iterative methods. Mantid Imaging puts powerful tools for noise reduction, artefact removal, alignment, and advanced iterative reconstruction methods in the hands of scientific users without requiring knowledge of programming. Mantid Imaging builds on algorithms provided by libraries including ASTRA Toolbox, Core Imaging Library and Tomopy in a cross platform Qt GUI. It can be installed locally or deployed via remote desktop systems such as the ISIS Data Analysis as a Service to give users access to sufficient resources to handle large datasets. Mantid Imaging has allowed IMAT to migrate away from proprietary software that was no longer supported. We present the software, show examples of its use at IMAT, and discuss planned extensions of Mantid Imaging for energy-resolved neutron imaging.

Email address of presenting author

sam.tygier@stfc.ac.uk

Primary authors: Ms AKELLO-EGWEL, Dolica (STFC); TYGIER, Sam (STFC)

Presenter: TYGIER, Sam (STFC)

Track Classification: NOBUGS 2022