Georgia Tech
Institute for Materials

Workshop

Energy-Tunable X-Ray Infrastructure At GT: Where We Are and Where Do We Want to Go?

May 16th, 10:00am – 4:00 pm | Marcus Nanotechnology Bldg.| Room 1117-1118

HIGH Q-SPACE PDF

ANOMALOUS X-RAY DIFFRACTION

X-RAY ADSORPTION & HIGH-ENERGY RESOLUTION X-RAY EMISSIONS

PHOTON-IN PHOTON-OUT OPERANDO EXPERIMENTS

REGISTRATION REQUIRED
REGISTER AT:
https://tinyurl.com/IMATxrayWKSP2022

Morning session:

Presentation of current capabilities
Presentation of potential target areas
Discussion on NSF Midscale Research Infrastructure (breakout session)

Afternoon session:

Presentation of XAS and XES analytical tools (hardware and software)
Workshop on Demeter, and XAS analysis software package Athena and Artemis
Hands-on work with real data using Athena and Artemis (data reduction and data modeling/fitting)

This event aims to bring together researchers from across GT around the topic of energy-tunable and high-flux x-ray research infrastructure at GT. Energy-tunable x-ray infrastructure allows for unique measurements of materials structure and chemistry such as x-ray absorption, anomalous x-ray diffraction, high q-space pair distribution function, photon-in/photon-out operando experiments, and elemental contrast x-ray microscopy. The workshop has the dual purpose of: 1) uniting the interested parties to discuss further development, including plans for an NSF Mid-Scale Research Infrastructure proposal, and 2) training our current and future users on the data reduction, analysis (including fitting to models), and interpretation x-ray absorption spectra obtained at our benchtop easyXAFS instrument.

Led By: Faisal Alamgir, Professor; School of Materials Science & Engineering