

CNM Short Course: Using the Hard X-ray Nanoprobe

Instructor: Martin Holt (CNM)

Course capacity: 12

Thursday, May 10, 2018

9:00 am-12:00 pm

Location: Sector 26

This course will consist of a functional overview of the nanoscale hard X-ray microscopy capabilities at the CNM/APS Hard X-ray Nanoprobe beamline. A step-by-step description of the basic experimental process steps<including sample requirements, sample preparation, alignment, data collection, and data analysis<will be provided through the use of demonstration experiments and data. A survey of recent literature and current experimental directions will also be presented to highlight the scientific impact of these unique imaging capabilities. This course is targeted for potential CNM users interested in a working understanding of the experimental strengths and functional requirements of the nanoprobe instrument. Topics will include the following:

- Scanning x-ray fluorescence microscopy
- Scanning x-ray diffraction microscopy
- Bragg projection ptychography