

**Diffraction Measurements on Micro and Nano Scales Using Synchrotron Workshop
Thursday, June 17, 2010 (full day workshop)**

Description: Synchrotron X-ray diffraction combines 3rd generation synchrotron radiation with modern optics and detectors, therefore provides unique capabilities to nondestructively characterize the materials from the micrometer to nanometer scales. The workshop will highlight the research, applications and instrumentation in this area, while at same time provide attendees with background knowledge. Three dimensional diffraction imaging techniques, such as polychromatic Laue diffraction, tomographic diffraction, and coherent diffraction, will be extensively discussed during the workshop. It is expected that the attendees of the workshop to come from different backgrounds.

Organized by: Renfei Feng, Canadian Light Source

Location: Gallery A, TCU Place, Downtown Saskatoon

Time	Speaker/Affiliation	Title
8:00	<i>Registration</i>	
8:50	Tom Ellis, Canadian Light Source	Introduction
9:00	Gene Ice, Oak Ridge National Lab	The unique importance of 3D submicron X-ray diffraction to understanding materials behavior
10:00	<i>Coffee Break</i>	
10:15	Ulrich Lienert, Advanced Photon Source, Argonne National Lab	High energy diffraction microscopy at the 1-ID APS beamline
11:15	Kenji Tamasaku, SPring-8/RIKEN	Micro/nano-beam by mirror optics in SPring-8
12:00	<i>Lunch Break (lunch provided)</i>	
1:00	Wenjun Liu, Advanced Photon Source, Argonne National Lab	X-ray Laue diffraction 3D microscopy at 34-ID beamline in Advanced Photon Source
2:00	Felix Hofmann, University of Oxford	Studying grain level deformation - micro beam Laue and other synchrotron based micro diffraction techniques
3:00	<i>Coffee Break</i>	
3:15	Nobumichi Tamura, Advanced Light Source, Lawrence-Berkeley National Lab	Overview of the X-ray microdiffraction beamline science program at the Advanced Light Source
4:15	Stewart McIntyre, University of Western Ontario	Use of Streaming Software for On-Line Analysis of Massive Laue XRD Data Sets
5:00	<i>Round Table Discussion</i>	
6:00	<i>Workshop Adjournment</i>	

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