

SEMINAR NOTICE

Canadian Light Source Inc.

SPEAKER: John P. Sutter, Optics Scientist, Diamond Light Source Ltd.

TOPIC: So much to see, so much to do: Optics and metrology at the Diamond Light Source

DATE: Wednesday, February 1, 2017

TIME: 2:30 p.m.

PLACE: CLS – Room 2068A&B

ABSTRACT:

The Diamond Light Source has been the United Kingdom's national synchrotron science facility since 2007. Located within easy reach of Oxford, Cambridge, and London, it is well suited to receive users for experiments in protein crystallography, spectroscopy, imaging, and diffraction. Since Diamond's establishment, the Optics & Metrology Group has been inspecting and installing X-ray beamline optics (mirrors, lenses, and monochromators) using state-of-the-art metrology. Inspections are performed both in a cleanroom metrology laboratory (ex situ) and on the beamlines themselves (in situ). Moreover, this group is conducting an active program of research and development that aims to improve both the optics themselves and the metrology used to determine their quality. Theoretical simulations and experimental techniques are both being advanced as part of this effort. An overview is shown of the equipment and the techniques now regularly used for metrology on optics at Diamond. This is followed by a selection of Diamond's current research projects in metrology and optics. A future upgrade that would increase the X-ray brilliance and coherent flux is under discussion. The exploitation of the improved beam properties would involve the Optics & Metrology Group's participation.

HOSTED BY: Dean Chapman

Refreshments will be served for those attending the seminar.

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