

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

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**SPEAKER:** Scott Rosendahl  
Canadian Light Source

**TOPIC:** *So, you want to do Infrared spectroscopy at a Synchrotron?*

**DATE:** Tuesday November 15th

**TIME:** 3:30-4:30 p.m.

**PLACE:** *Physics 103*

## **Abstract:**

Synchrotron infrared light when coupled with appropriate optics enables broadband, diffraction-limited spatial resolution with high-quality (signal-to-noise) spectra for material analysis in numerous fields. This is the primary advantage to using synchrotron infrared light compared to conventional sources found in benchtop instruments. The Mid-Infrared Spectromicroscopy beamline facilities available to researchers at the Canadian Light Source have generated many collaborations with multiple partners in Agriculture, Bio/Life, Environment, Materials and Cultural Heritage sciences.

Developing the tools, devices and techniques that exploit these advantages of synchrotron light for infrared spectromicroscopy has been a focus of my research and is an ongoing effort. Lately, these include the developments in data analysis tools, in-situ devices and expanding the capabilities of time-resolved, polarization modulation techniques and most recently the addition of a horizontal ATR (attenuated total internal reflection) microscope endstation.

This talk will provide an overview of techniques available at the beamline through a series of examples and will highlight the advantages of using synchrotron mid-infrared spectromicroscopy in research programs.