

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

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**SPEAKER:** Dr. Tim Kelly  
Department of Chemistry

**TOPIC:** *Solution-processed photovoltaic devices: control and characterization of active layer morphology*

**DATE:** October 2nd , 2018

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

**PLACE:** Physics 103

## **ABSTRACT:**

Emerging photovoltaic technologies such as organic photovoltaics and perovskite solar cells have the potential to revolutionize solar technology. These devices can be made lightweight, colorful, flexible, and transparent, enabling their application in a wide variety of unique form factors. Yet despite the promise of these technologies, the fabrication of high efficiency devices requires exquisite control over the morphology and crystallinity of the thin film active layers (both organic and perovskite). In this talk, I will discuss some of our research group's recent efforts to provide nanoscale-level control over the film morphology in both organic bulk heterojunction solar cells and perovskite-based devices. The talk will emphasize our use of advanced characterization techniques, such as photoinduced force microscopy (PiFM) and in situ / in operando grazing-incidence wide angle X-ray scattering (GIWAXS), to characterize the morphology and crystallinity of the resulting films..

*Coffee and Cookies will be served in Physics lounge at 3:00 p.m. for those attending the seminar.*