STRUCTURE AND DYNAMICS WITH ULTRAFAST ELECTRON MICROSCOPES ... or how to make atomic-level movies of molecules and materials
Bradley J. Siwick
McGill University

Date and time: Thursday, April 23, 2020 at 4:00 p.m.

Series: Physics and Astronomy Colloquium

Abstract: In this talk I will describe how combining ultrafast lasers and electron microscopes in novel ways makes it possible to directly ‘watch’ the time-evolving structure of condensed matter and the couplings between carrier and lattice degrees of freedom on the fastest timescales open to atomic motion [1-4]. By combining such measurements with complementary (and more conventional) spectroscopic probes we can now develop structure-property relationships for materials under even very far from equilibrium conditions [2].

I will assume no familiarity with ultrafast lasers or electron microscopes.


Location: PAB 4-330

For more information, contact Yaroslav Tserkovnyak

We thank the following people for their contributions to the wine fund for the post-colloquium reception:
Professors Katsushi Arisaka, Andrea Ghez, Karoly Holczer, Huan Huang, HongWen Jiang, Per Kraus, Alexander Kusenko, Matthew Malkan, Mayank Mehta, Warren Mori, Ni Ni, Seth Putterman, Yaroslav Tserkovnyak, Vladimir Vassiliev, Shenshen Wang, and Nathan Whitehorn.