

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

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**SPEAKER:** Jordan Morelli, PhD, P.Eng  
(U of S 2003)

**TOPIC:** *Applied Magnetics: Seeing Through Walls and Fueling the Future.*

**DATE:** Tuesday March 26th, 2019

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

**PLACE:** Physics 103

## **ABSTRACT:**

Magnetic fields are routinely applied to carryout non-destructive evaluation of conducting components, such as the fuel channels and steam generators in Candu (fission) reactors, and in other cylindrical conducting structures (such as pipelines used in the oil and gas industries), to ensure their structural integrity. At higher energies, magnetic fields are applied to confine hot plasma in a fusion reactor, and also to refuel fusion reactors.

This presentation will introduce eddy current-based inspection technologies that have been developed in collaboration with industry partners such as Ontario Power Generation, Canadian Nuclear Laboratories, Hatch, and Mequaltech. It will also present recent work modelling compact toroid injectors. Opportunities for graduate student projects will be highlighted.

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