

# SEMINAR NOTICE

*Department of Physics and Engineering Physics  
University of Saskatchewan*

---

**SPEAKER:** Zhi Wei Wang, PhD Candidate

**TOPIC:** *The hidden world: Higgs, dark matter and conformal symmetry*

**DATE:** Tuesday, March 8<sup>th</sup>, 2016

**TIME:** 3:30-4:30pm

**PLACE:** Rm. 103, Physics Building

## **ABSTRACT:**

This talk will address the two most important topics in particle physics in the LHC era: Higgs and dark matter. The Higgs mass suffers from the well-known hierarchy/naturalness problem and a custodial symmetry is needed. In this talk, I will show conformal symmetry as a non-conventional custodial symmetry protects the Higgs mass from UV sensitivity. In addition, the Standard Model with hidden sector extensions provide ideal dark matter candidates and interesting collider signatures. Combining the idea of conformal symmetry and hidden sectors, I will introduce the conformally-symmetric hidden sector where both the hierarchy problem and dark matter are addressed.

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