

## PHYSICS AND ASTRONOMY SEMINAR

## **Heather Russell**

Ph.D. Candidate, University of Washington, Department of Physics

## "Searches for Long-Lived Neutral Particles with the ATLAS Detector at the LHC"

## **Abstract**

Many extensions of the standard model predict the existence of long-lived, neutral particles that could be produced at the LHC. For example, Stealth SUSY models propose a way that SUSY might be evading limits from direct searches, and can have a phenomenology that includes long-lived particles. The decays of these particles lead to unique detector signatures that can be exploited using specialized reconstruction techniques. I will describe some of these reconstruction methods, and summarize the most recent results from searches for long-lived particles from the ATLAS experiment.

Wednesday, April 8, 2015 1:30 p.m. Elliott Building Room 160