**Physics** & **Astronomy**

Colloquium

**––––––––––––––––**

**Prof. Bob Hirosky**

University of Virginia

**3:30 - 4:30 p.m. | Tuesday, Nov. 12**

**Science Building 234**

**High resolution EM calorimetry from the LHC to the Higgs Factory**

Calorimeters using various technologies are ubiquitous in High Energy Physics experiments for the measurement of high energy particles.  This talk will review the detector physics and recent applications of homogeneous crystal calorimeters in the CMS Experiment at the CERN LHC, and discuss preparations to achieve the physics goals of the High Luminonisty LHC starting on 2029.  Looking forward to a future Higgs Factory, I will summarize plans for the larger machine and physics program that is being proposed to follow the LHC in the 2040's and discuss some of the international efforts to prepare for this future, including the US-led CalVision R&D program which aims to produce a new, hybrid dual-readout calorimeter to achieve state-of-the-art calorimetric measurements of all particles with a new level of precision.

**Refreshments at 3 p.m. | SC 103**