

SE&T Colloquium Series-Winter 2013

Speaker	Dr. Bo Jayatilaka Fermi National Accelerator Lab Host: Christopher Nakamura
Title	<i>Colliders and their Window into the Universe: the past, present, and future</i>
Abstract	Particle physics aims to decipher the fundamental building blocks of the universe and the forces that govern their interaction. The most important experimental tool in this pursuit has been the particle collider: machines which hurl subatomic particles at each other and exploit mass-energy equivalence to create other (and hopefully new!) particles. I will present a brief history of colliders past, culminating in the most recently retired collider: the Fermilab Tevatron. I will discuss an example of a recent result from the Tevatron: the most precise measurement of the mass of the W boson ever made. The present-day (and foreseeable future) of collider physics is dominated by the CERN Large Hadron Collider (LHC). I will show how two teams of thousands of physicists and the largest scientific instrument ever built made headlines around the world by discovering a "Higgs-like boson."
Date	Tuesday, February 19
Time	4:10-5:00pm
Place	Pioneer 240
	Refreshments will be served at 4:00pm.