

1057-14-283

**Lara B Anderson\*** (andlara@physics.upenn.edu), Dept. of Physics, University of Pennsylvania, 209 South 33rd Street, Philadelphia, PA 19104. *Consequences of Heterotic Supersymmetry.*

In this talk, I will discuss some of the surprising consequences of global supersymmetric structure in heterotic theories. Heterotic theories generically do not admit supersymmetric vacua throughout their total moduli space. In particular, I will discuss the sub-structure of the heterotic Kahler moduli space that arises for vector bundles which are slope-stable in only part of the Kahler cone. Specifically, I will briefly explain the notion of vector bundle slope stability from an effective field theory point of view and discuss physical applications of this description including branch structure which allows for transitions between vector bundles, constraints on yukawa couplings, and applications to moduli stabilization. (Received January 25, 2010)