

## Upcoming Nuclear Particle Astrophysics Seminar

**Thursday, April 14, 2016**

3:45 PM

Wright Lab, EAL 108

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Duke University



### **Hidden structure and high-mass diboson resonance searches at ATLAS**

Natural models of electroweak symmetry breaking confront pressing questions about the structure of the Standard Model that the discovery of a 125 GeV Higgs boson leaves unanswered. The Large Hadron Collider experiments are poised to take full advantage of the order-of-magnitude increase in the amount of 13 TeV collision data anticipated this year, having recently developed powerful new techniques for resonance searches that enhance the experiments' sensitivity to the very massive new states typically predicted by these models. I will describe developments in jet substructure reconstruction and tagging and their application in recent ATLAS diboson resonance searches, and comment on the exciting challenges facing us for Run 2 and beyond.

**Hosts: Kyungeun Lim**

Sponsored by the Flint Fund, Wright Laboratory, Physics Department, and Yale University