

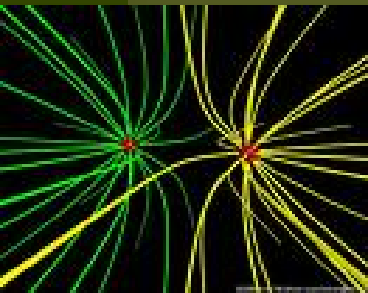
# Theory Seminar

Monday, December 1, 2008 2:10 PM 831 Pupin Hall



## Background Electric Fields and Charged Hadron Correlators on the Lattice

The response of hadrons to electromagnetic probes is highly constrained by chiral dynamics. In some cases, theoretical predictions have not compared well with experimental data. Lattice calculations can be used to test the predicted chiral-electromagnetic deformation of hadrons and ultimately confront experiment. I will discuss the use of background field techniques to study the electromagnetic polarizabilities of hadrons. I will focus on lattice calculations of hadrons correlation functions in background electric fields and present preliminary results for both the charged and neutral hadron polarizabilities. The former are extracted using a novel method.



Andre Walker-Loud, College of William and Mary