



## Theory Seminar

"Evidence for a new particle on the worldsheet of the QCD flux tube"



We propose a new approach for the calculation of the spectrum of excitations of QCD flux tubes. It relies on the fact that the worldsheet theory is integrable at low energies. With this approach, energy levels can be calculated for much shorter flux tubes than was previously possible, allowing for a quantitative comparison with existing lattice data. The improved theoretical control makes it manifest that existing lattice data provides strong evidence for a new pseudoscalar particle localized on the QCD fluxtube - the worldsheet axion.

**Sergei Dubovsky, New York University**

*Monday, February 25, 2013 / 831 Pupin Hall / 2:10PM*