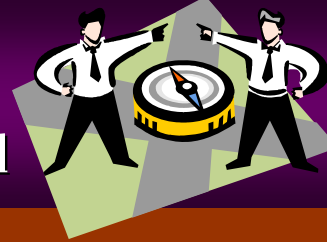




# Theory Seminar

Monday, December 10, 2007 2:10 PM 831 Pupin Hall



**Kuver Sinha, Rutgers University**

## Meta-stable dynamical supersymmetry breaking near points of enhanced symmetry

**Broadly, this talk would be based on the realization of metastable supersymmetry breaking from a field theory point of view, following the pioneering work of Intriligator, Seiberg, and Shih.**

**We show that metastable supersymmetry breaking is a rather generic feature near certain enhanced symmetry points of gauge theory moduli spaces.**

**Specifically, we construct a model with long-lived metastable vacua in which all the relevant parameters, including the supersymmetry breaking scale, are generated dynamically by dimensional transmutation. Our model consists of two sectors coupled by a singlet and combines dynamical supersymmetry breaking with an O'Raifeartaigh mechanism in terms of confined variables. The metastable vacua appear along a pseudo-runaway direction near a point of enhanced symmetry as a result of a balance between non-perturbative and perturbative quantum effects.**