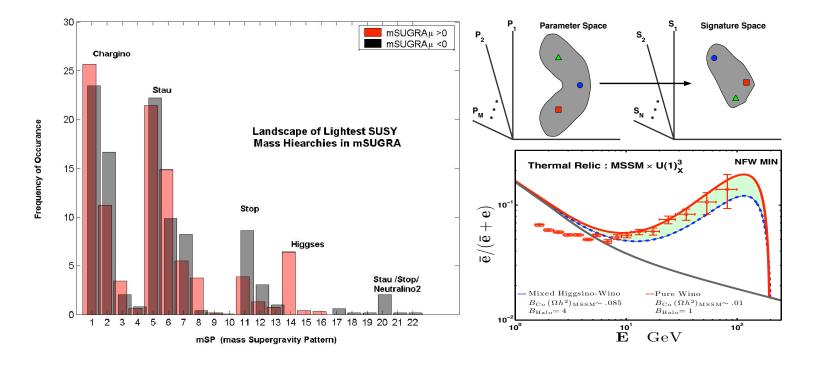
## **Boston University**

## High Energy Experiment Seminar



## Testing mSUGRA and Extensions at the LHC and Elsewhere

The minimal supergravity grand unified model mSUGRA provides a natural ex- planation for the spontaneous breaking of the electroweak symmetry and with R parity conservation leads to the neutralino as the lightest supersymmetric particle and a candidate for cold dark matter consistent with the WMAP data. A car- tography of the sparticle mass hierarchies within mSUGRA will be discussed as such hierarchical patterns lead to distinguishable features in multilepton, multijet and missing energy events at the Large Hadron Collider. Extensions of mSUGRA to explain the results from anti-matter probes and as well as the possibility of discovery of sparticles in early runs at the LHC will also be discussed.

## Pran Nath

Northeastern University

November 19, 2009 (Thursday) at 3:30pm 3 Cummington St., Room 595, Boston University