Department of Theoretical Physics

Free Meson Seminar

Speaker	:	Siba Prasad Das (Visva-Bharati Univ.)
Topic	:	Signature of Neutrinos at the Large Hadron Collider
Day, Date & Time	:	Thursday, July 12, 2012 at 2:30 p.m.
Place	:	AG 69

Abstract

Supersymmetric models with bi-linear R-parity violation (BRpV) can account for the observed neutrino masses and mixing parameters. In this model the lightest supersymmetric particle (LSP) is unstable with large enough decay length. We will address the LSP properties– such as mass, lifetime, branching ratios at the Large Hadron Collider (LHC) and reveal their relation to neutrino properties. In the second part, we will discuss the neutrino mass generation in the Left-Right (LR) symmetrical extension of the Standard Model. In this model heavy right-handed neutrinos appear with masses of the order of TeV. We show that the production and decays of such heavy neutrino leads to lepton flavour violating signature and might be observed at the LHC.

(Nilmani Mathur)