ID de Contribution: **81** Type: **Ordinary**

LHC and lepton flavour violation phenomenology (LR-MSSM)

mercredi 16 mars 2011 17:20 (15 minutes)

We review Lepton Flavour Violation (LFV) in the supersymmetric version of the seesaw mechanism (type I, II and III) and in Left-Right (LR)models. The LFV needed for explaining the neutrino masses and mixings acts as the only source of LFV and has experimental implications both in low-energy experiments (like MEG) where we search for the radiative decays of leptons, and at the LHC where we look at its imprint on the LFV decays of the sleptons and on slepton mass splittings. The study of the di-lepton invariant mass distribution at the LHC allows to reconstruct some of the masses of the different sparticles involved in a decay chain. Slepton mass splittings can be either interpreted as a signal of non-universality in the SUSY soft breaking-terms (signalling a deviation from constrained scenarios as the cMSSM) or as being due to the violation of lepton flavour. We discuss how the confrontation of slepton mass splittings as observed at the LHC and low-energy LFV observables may provide important information about the underlying mechanism of LFV.

Auteur principal: ROMAO, Jorge C. (Instituto Superior Tecnico)

Orateur: ROMAO, Jorge C. (Instituto Superior Tecnico)

Classification de Session: Flavour Physics - Lepton Flavour - Neutrinos

Classification de thématique: Theory