

Department of Theoretical Physics

Special Free Meson Seminar

<i>Speaker</i>	:	Biplob Bhattacharjee (University of Calcutta)
<i>Topic</i>	:	Collider Phenomenology of a Universal Extra Dimension Model
<i>Day, Date & Time</i>	:	Tuesday, November 25, 2008 at 2:30 p.m.
<i>Place</i>	:	AG 69

Abstract

The Kaluza-Klein excitations of the Higgs bosons of the universal extra dimension model (UED) are extremely challenging to detect. We discuss the production and possible detection mechanisms of such excited scalars at the LHC. We highlight why the detection of scalar sector of this model is important. A much better power of discrimination of UED from other models is provided by the production of $n=2$ gauge bosons as resonances at the linear collider. We then show how these resonances can yield unambiguous signals for UED, if taken in conjunction with the production of Z_1 pairs, identified by their decays to leptons and missing transverse energy.

(Saumen Datta)