

Department of Theoretical Physics

Free Meson Seminar

<i>Speaker</i>	:	Rohini Godbole (Indian Institute of Science, Bangalore)
<i>Topic</i>	:	Top Polarisation at colliders
<i>Day, Date & Time</i>	:	Thursday, March 18, 2010 at 2:30 p.m.
<i>Place</i>	:	AG 69

Abstract

In this talk I will discuss top polarisation as a probe to study the SM and BSM physics at the colliders. I will talk about different probes of top polarisation that can be constructed using decay lepton energy and angle distributions, pointing out a special feature of angular distributions which make them a particularly robust probe of polarisation. Further, I will point out a method of constructing observables which can probe polarisation asymmetries, even at the LHC which does not have a preferred direction. I will illustrate this with an example of a $t\bar{t}$ resonance at the LHC. I will also discuss the effect of anomalous tbW interactions on the use of probes constructed using decay product energies, which may be the only option for heavily boosted top quarks, expected, for example, in the warped extra dimensional models.

(Nilmani Mathur)