

# Department of Theoretical Physics

## Free Meson Seminar

<i>Speaker</i>	:	Ayan Paul (University of Notre Dame)
<i>Topic</i>	:	Charm: A portal for New Dynamics
<i>Day, Date &amp; Time</i>	:	Thursday, December 1, 2011 at 2:30 p.m.
<i>Place</i>	:	AG 69

### *Abstract*

As we wait for direct searches to find new degrees of freedom, we are gradually realizing that Nature's grand scheme is more elusive than we had previously thought it to be. In preparation for a more complicated dynamics than we have hitherto modelled we build our partially model independent correlated searches of New Dynamics in the flavour sector. In this presentation, I will focus on searches of New Dynamics in two, three and four body decays of the charm hadrons. As theoretical complexity increases exponentially with the final state multiplicity, such channels also provide far more experimental handles than lower multiplicity channels. I will also try to highlight how such dynamics can be used for model building with a different perspective.

*(Nilmani Mathur)*