

Department of Theoretical Physics

Free Meson Seminar

<i>Speaker</i>	:	Narendra Sahu (Brussels University)
<i>Topic</i>	:	Direct and Indirect Search of Dark Matter Interacting via Higgs Portal
<i>Day, Date & Time</i>	:	Thursday, February 3, 2011 at 2:30 p.m.
<i>Place</i>	:	AG 69

Abstract

Evidence from Galaxy rotation curve, gravitational lensing and large scale structure of the Universe suggest that there exist dark matter (DM), which constitutes 23% of the total energy budget of the Universe. A viable candidate of DM is the Weakly Interacting Massive Particle (WIMP), which interacts feebly with the visible world. This raises a question “how to detect DM?”. In the recent years various indirect and direct search experiments have been employed to search for DM. In particular, the positron data from AMS, HEAT and PAMELA, and the electron plus positron data from HESS, ATIC and FermiLAT give an indication of the direct detection of DM. Similarly, the latest data from CDMS give an indication of direct detection of DM. In this talk we will use these data to constrain some properties of DM interacting with visible sector (standard model of particle physics) via the Higgs portal.

(Nilmani Mathur)