Area Seminar

Title	Class of Higgs-portal Dark Matter models in the light of gamma-ray excess from Galactic center
Date and Time	24/04/2014 16:00:00
Speaker	Dr. Tanushree Basak PRL
Area	Theoretical Physics
Venue	Room No. 469
Abstract	Recently the studies of anomalous gamma-ray emission in the Fermi-bubbles have drawn a lot of attention as it points out that the excess of ~ 1-3 GeV gamma-ray in the low latitude is consistent with the emission expected from annihilating dark matter. The best-fit to the gamma-ray spectrum corresponds to dark matter candidate having mass in the range ~ 31-40 GeV annihilating into b-bbar pair with cross-section ~ (1.4 - 2.0) x 10^(-26) cm^3 s^(-1). In this talk, we will discuss a class of Higgs-portal dark matter models, in presence of scalar resonance, which are well-suited for explaining these phenomena. We will also comment on a few Higgs-portal models which are found to be incompatible with the recent analysis.