DESY
Physics Seminar

Dark Matter Searches with the Fermi Large Area Telescope.

Luca Latronico (INFN Pisa)

Tuesday, 2 July 2013, 16:45 h, Auditorium

The Fermi Large Area Telescope (LAT) has been collecting high energy gamma rays from 20 MeV to more than 300 GeV for 5 years, and is now completing its prime observations cycle. With about 800 million gamma-ray events to date, and a uniform exposure over the whole sky, LAT data allowed for the first time the compilation of catalogs of gamma-ray sources of diverse classes, as well as accurate modeling of diffuse gamma-ray emission not associated to sources, which are both critical foregrounds for searches of gamma rays originating from Dark Matter. The LAT also detected and identified millions of cosmic-ray electrons and positrons, enabling access to Dark Matter signatures complementary to those in gamma rays. In this talk I will review the broad search strategy, discuss the most important results and the future prospects for a continuing hunt to particle Dark Matter with the Fermi LAT.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**