

SEMINARIO DEL DEPARTAMENTO DE FÍSICA TEÓRICA

20 de Enero de 2010, 15 h., Módulo 15 (C-XI) aula 201

Fermi Large Area Telescope at a Year and a Half: A New View of the High Energy Gamma-Ray Sky

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Abstract: After about 1.5 years since its launch (June 2008), the Fermi mission has recorded a remarkable variety of novel observations, relating to astronomy, astrophysics and astro-particle physics with exciting implications for fundamental physics. The most energetic and mysterious objects in the cosmos, like black holes, rapidly-spinning neutron stars, supernova remnants, gamma-ray bursts as well as the interstellar glow of our own Galaxy, have been observed in gamma-rays from 20 MeV to more than 300 GeV by the Large Area Telescope (LAT), the main instrument on board of Fermi.

Since its initial checkout period, the LAT has functioned almost without problems, gathering data in an "all-sky-scanning" mode providing an exposure of the entire sky approximately every 3 hours. In this talk I will show some of the most interesting results obtained by the Fermi LAT, highlighting the contribution of the mission to the high energy gamma-ray astrophysics.