

LABORATORI NAZIONALI DEL GRAN SASSO

SEMINAR ANNOUNCEMENT

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***Seeing signals of Dark
Matter in cosmic rays?***

Dark Matter constitutes more than 80% of the total amount of matter in the Universe, yet almost nothing is known about its nature. A powerful investigation technique is that of searching for the products of annihilations of Dark Matter particles in the galactic halo, on top of the ordinary cosmic rays. Recent data from the PAMELA and FERMI satellites and a number of balloon experiments have reported unexpected excesses in the measured fluxes of cosmic rays. Are these the first direct evidences for Dark Matter? If yes, which DM models and candidates can explain these anomalies and what do they imply for future searches? What are the constraints from other gamma rays measurements and cosmology?

**MARCH 22, 2011 – 10:00 AM
LNGS - “B. PONTECORVO” ROOM**