

LABORATORI NAZIONALI DEL GRAN SASSO

SEMINAR ANNOUNCEMENT

On **October 25, 2007** at **14:30**, **Xavier Bertou** from **Centro Atomico Bariloche (CNEA), Bariloche, Argentina** will give a seminar entitled:

“Detecting Gamma Ray Bursts with Water Cherenkov Detectors”

Abstract:

Ground based particle detector arrays can detect the putative high energy emission of a Gamma Ray Burst (photons down to a few hundreds of MeV) by the so-called "single particle technique", through a coherent increase in the average background particle rates over the whole array, due to secondary particles in the photon-induced showers. Water Cherenkov detectors are particularly efficient as they are sensitive to the secondary photons which represent up to 90% of the particles in the cascade. I will present results obtained with the Pierre Auger Observatory, the dedicated Large Aperture GRB Observatory, and possible future improvements to the method necessary to reach better sensitivity.

(“B. Pontecorvo” room)