

**LABORATORI NAZIONALI DEL GRAN SASSO**

**SEMINAR ANNOUNCEMENT**

On December 7, 2007 at 3:00 pm, A. Sakharov from MEPHI, Moscow and CERN will give a seminar entitled:

**“Large scale patterns in the distribution of axionic dark matter”**

Abstract:

**We analyze the problem, inherent to the cosmological cold dark matter models of invisible axion, that concerns primordial inhomogeneity in the distribution of the density of coherent oscillations of the axionic field. This problem, referred to as the problem of large scale patterns, invokes nongaussian component in the initial perturbations for axionic cold dark matter. These patterns are the formation that represents a replica of the percolation Brownian vacuum structure of axionic walls bounded by strings, which is fixed in the strongly inhomogeneous primeval distribution of cold dark matter. The analysis of observable effects associated with these large scale patterns leads to an interesting constraint on the parameters of invisible axion.**

**(“B. Rossi” room)**