



Laboratório de Instrumentação e
Física Experimental de Partículas

Seminário LIP*

Thursday, 7 December 2017

11:30 to 12:30

Baikal GVD Experiment

**By Dr. Dimitry Naumov
(JINR)**

Astrophysical neutrinos of ultra high energies discovered recently by IceCube Collaboration opened a new branch of physics - neutrino astronomy.

A determination of sources of ultra-high energy neutrino requires an accurate reconstruction of neutrino arrival direction and good neutrino energy reconstruction.

The major part of neutrino interactions is seen as shower events. It is hard to achieve a reasonable accuracy in the angular reconstruction of showers in the ice because of very intense light re-scattering. The corresponding scattering length in BAIKAL water is an order of magnitude larger thus allowing a more precise determination of neutrino arrival direction.

JINR together with other institutions is constructing a cubic kilometer water Cherenkov detector in the Lake BAIKAL. The main aim of this detector is a precise determination of sources of ultra-high energy neutrinos.

I will report about the current status, plans and invite you to join BAIKAL GVD Collaboration.

*** Place: Seminar Room (311)**

LIP (Laboratório de Instrumentação e Física Experimental de Partículas)

Instituto Interdisciplinar de Investigação da Universidade de Lisboa

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Coffe and cakes at 11:00 in room 312