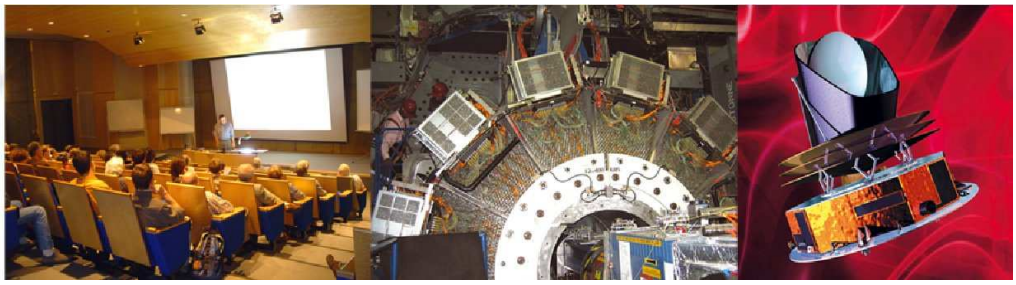
LABORATOIRE DE L'ACCÉLÉRATEUR LINÉAIRE



Séminaire du Laboratoire de l'Accélérateur Linéaire

Getkin Alex

Institute for Scintillation Materials, Kharkov, Ukraine

Lundi 17 Juin 2013 à 11 :00

Last trends in scintillators development ; theory and practice

This is an overview of the last decade development in scintillation physics and detector engineering. After LHC time the global security and medical imaging claims simulated studies of fast and extremely efficient (up to fundamental limit) halide and oxide scintillators. The current status of this physics and potential progress are the subject of this review.

The presentation will cover the following topics :

* last results at first steps of the track devekopment, carrier mobility and thermalization at hot and diffusional stage ;
* ability to use this knowledge for the new both oxide and halide scintillator search ;
* crystal lattice and zone structure engineering in favor of better performance ;
* new scintillator review ;
* some thechnologial keyes in favor of different applications (particle energy physics, in particular).

Some examples of new scintillator development from the invention to commercially available will be presented to demonstrate the time and minimal resources needs. This is an important for LHC upgrade discussion and double (scintilllator-Cherenkov counter) sensors development for HHCAL.

Salle 101 du LAL - Bât. 200, Orsay

Thé et café seront servis 1/4 h avant le séminaire