



## *Séminaire du Laboratoire de l'Accélérateur Linéaire*

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**Mardi 26 Janvier 2010 à 11 :00**

## **The story of the multigap resistive plate chamber as a TOF detector**

The multigap resistive plate chamber (MRPC) is a very special variation of the resistive plate chamber (RPC). The story behind the construction of the first MRPC will be explained. Some principles of operation will be briefly discussed to explain its exceptional stability of operation. The ALICE time-of-flight uses the multigap resistive plate chamber (MRPC) as the timing device. It covers an area of 150 m<sup>2</sup> and has 160,000 readout channels. We expect a global time resolution of the whole system to be better than 100 ps. We will discuss the special front-end chip (NINO) that was developed for this detector and the HPTDC ASIC. Finally we will discuss ideas for improving the time resolution towards 10 ps.

**Salle 101 du LAL - Bât. 200, Orsay**

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

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