



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

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CERN

**Mardi 11 Juin 2013 à 11 :00**

## **Charm mixing at LHCb**

We report a measurement of the time-dependent ratio of  $D^0 \rightarrow K^+\pi^- \rightarrow D^0 \rightarrow K^-\pi^+$  decay rates in  $D^*$ -tagged events using  $1.0\text{fb}^{-1}$  of integrated luminosity recorded by the LHCb experiment. We measure the mixing parameters  $x'^D = (-0.9 \pm 1.3) \times 10^{-4}$ ,  $y'^D = (-0.9 \pm 1.3) \times 10^{-4}$  and the ratio of doubly-Cabibbo-suppressed to Cabibbo-favored decay rates  $R_D = (3.52 \pm 0.15) \times 10^{-3}$ , where the uncertainties include statistical and systematic sources. The result excludes the no-mixing hypothesis with a probability corresponding to 9.1 standard deviations and represents the first observation of  $D^0 - \bar{D}^0$  oscillations from a single measurement.

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

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



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