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## Measurement of CP observables in $B^0 \rightarrow D K^{*0}$

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The decay  $B^0 \rightarrow D K^{*0}$  and the charge conjugate mode are studied using  $1.0\text{fb}^{-1}$  of pp collision data collected by the LHCb experiment at  $\sqrt{s} = 7\text{TeV}$  in 2011.

The CP asymmetry between the  $B^0$  and  $B^0$ bar decay rates, is found to be  $A_{\text{d\_KK}} = -0.45 \pm 0.23 \pm 0.02$ , where the first uncertainty is statistical and the second is systematic.

The ratio of the B-flavour averaged decay rates in D decays to CP and non-CP eigenstates is measured to be  $R_{\text{d\_KK}} = 1.36 (+0.37) (-0.32) \pm 0.07$ .

These two measurements represent an important step towards constraining the CKM angle  $\gamma$  from  $B^0 \rightarrow D^0 K^{*0}$  decays. This and the prospects for the 2012 dataset are discussed.

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