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## CP asymmetries in $B \rightarrow K^{(*)} \mu \mu$ decays

Tuesday 8 April 2014 14:00 (15 minutes)

Measurements of the direct  $CP$  asymmetry,  $A_{CP}$ , and the  $CP$  difference in the  $\mu^+ \mu^-$  forward-backward asymmetry,  $\Delta A_{FB}$ , are made for the  $B^0 \rightarrow K^{*0} \mu^+ \mu^-$  and  $B^+ \rightarrow K^+ \mu^+ \mu^-$  decay modes using  $pp$  collision data corresponding to an integrated luminosity of  $3fb^{-1}$  collected by LHCb in 2011 and 2012. The respective control modes  $B^0 \rightarrow J/\psi K^{*0}$  and  $B^+ \rightarrow J/\psi K^+$  are used to account for detection and production asymmetries. The measurements are made in several bins of  $\mu^+ \mu^-$  invariant mass squared,  $q^2$ , vetoing the  $\phi$  and charmonium resonance regions.

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