

Supplementary material for LHCb-PAPER-2014-013

An overview of the current measurements of ΔA_{CP} is shown in Fig. 1(a). Neglecting any effect from indirect CP violation, a new world average of $\Delta A_{CP} = (-0.25 \pm 0.11)\%$ is obtained. Figure 1(b) gives an overview of all measurements in the $A_{CP}(K^-K^+)$ versus $A_{CP}(\pi^-\pi^+)$ plane. The updated world averages are found to be $A_{CP}(K^-K^+) = (-0.15 \pm 0.11)\%$ and $A_{CP}(\pi^-\pi^+) = (0.10 \pm 0.12)\%$ with a correlation $\rho = 0.57$.

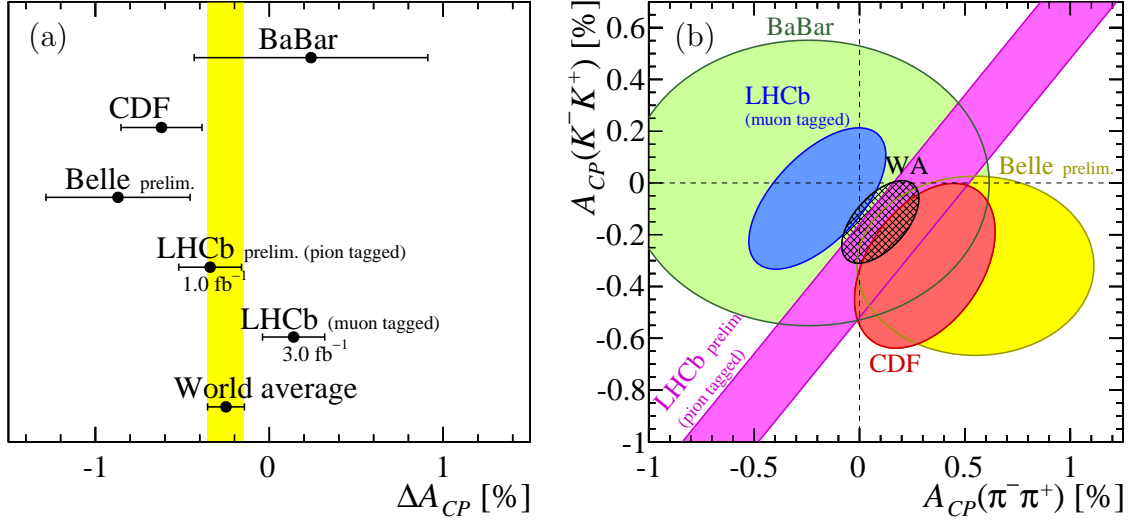


Figure 1: Overview of CP violation measurements in $D^0 \rightarrow K^-K^+$ and $D^0 \rightarrow \pi^-\pi^+$ decays showing (a) their difference, ΔA_{CP} , and (b) the $A_{CP}(K^-K^+)$ versus $A_{CP}(\pi^-\pi^+)$ plane. The 68% confidence level contours are displayed. The results are shown from BaBar [11], CDF [12], Belle [13], LHCb (pion-tagged) [9] and this paper. The new world averages (WA) are obtained neglecting any effect from indirect CP violation.