

Mixing/coherence in D mesons

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We report the measurement of the D^0 - D^0 bar mixing parameter, y_{CP} based on the sample taken at the $D\bar{D}$ bar mass threshold. Based on the events where we reconstruct one D decays to CP eigenstates while the other D decays semi-leptonially, we obtain $y_{\text{CP}} = (-2.0 \pm 1.3 \pm 0.7)\%$. We also present results for model independent measurement of the strong phase difference between D^0 and D^0 bar $\rightarrow K^0 \pi^+ \pi^-$, through a binned dalitz analysis. These results represent a significant improvement in a previously statistically limited measurement, which will then allow for increased precision in the measurement of unitarity triangle angle γ/ϕ_3 using the decay $B^{\pm} \rightarrow D (\rightarrow K_s \pi^+ \pi^-) K^{\pm}$ through the GGSZ method.

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