Time-dependent CP asymmetries in D and B decays

CP violation in the charm sector at the precisions accessible by current experiments could be a signature for new physics. So far, time-integrated measurements have provided upper limits in the 1% region, and D0 mixing studies limit any weak mixing phase to be less than 10 or 20 degrees. Future experiments are expected to provide greater precision and may be able to explore time-dependent CP asymmetries in charm decays that can provide a unique insight

into the flavour changing structure of the Standard Model. We discuss some of the features that can be explored in such studies. We also point out that current experimental bounds on

DeltaGamma translate into a significant systematic uncertainty on the measurement of beta from b -> c c-bar s decays.

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