



Contribution ID: 1182

Type: Parallel Session Talk

## Implications of the dimuon CP asymmetry in $B_{\{d,s\}}$ decays

*Saturday 24 July 2010 14:10 (17 minutes)*

The D0 Collaboration reported a  $3.2\sigma$  deviation from the standard model prediction in the like-sign dimuon asymmetry. Assuming that new physics contributes only to  $B_{\{d,s\}}$  mixing, we show that the data can be analyzed without using the theoretical calculation of  $\Delta\Gamma_s$ , allowing for robust interpretations. We find that this framework gives a good fit to all measurements, including the recent CDF  $S_{\{\psi\phi\}}$  result. The data allow universal new physics with similar contributions relative to the SM in the  $B_d$  and  $B_s$  systems, but favors a larger deviation in  $B_s$  than in  $B_d$  mixing. The general minimal flavor violation framework with flavor diagonal CP violating phases can account for the former and remarkably even for the latter case. This observation makes it simpler to speculate about which extensions with general flavor structure may also fit the data.

**Primary author:** PEREZ, Gilad (Weizmann Institute)

**Presenter:** PEREZ, Gilad (Weizmann Institute)

**Session Classification:** 06 - CP violation, CKM and Rare Decays

**Track Classification:** 06 - CP violation, CKM and Rare Decays