

# Squark flavor mixing and CP asymmetry of B meson

*Monday 20 February 2012 20:40 (20 minutes)*

The like-sign dimuon charge asymmetry observed by the D  
O Collaboration indicates the CP violating contribution from new physics in the  $B_s$  meson mixing. Recently, the LHCb reported the observed CP-violating asymmetry in  $B_s^0 \rightarrow J/\psi\phi$  and  $B_s^0 \rightarrow J/\psi f_0(980)$ , which is consistent with the SM prediction. However, there is still possible contribution on the CP violating new physics. The CKM fitter has presented the allowed region of the new physics parameters taking into account of LHCb data. We discuss the effect of the squark flavor mixing on the CP violation in the non-leptonic decays of  $B_d^0$  and  $B_s^0$  taking into account the data of LHCb experiment. We predict the asymmetries of  $B_d^0 \rightarrow \phi K_S$ ,  $B_d^0 \rightarrow \eta' K^0$  decays,  $B_s^0 \rightarrow \phi\phi$  and  $B_s^0 \rightarrow \phi\eta'$ .

**Presenter:** YAMAMOTO, Kei (Niigata Univ.)

**Session Classification:** Parallel: P1