



Contribution ID: 317

Type: **Parallel contribution**

## Measurements of Charm Mixing and CP Violation at Belle

*Wednesday, 10 August 2011 17:50 (18 minutes)*

We report an improved measurement of  $D^0$ - $D^0$ bar mixing using the time dependence of the Dalitz plot of the decay mode  $D^0 \rightarrow K_S^0 \pi^+ \pi^-$ . In addition, we report results of searches for CP violation in the decays  $D^0 \rightarrow K_S^0 P^0$  where  $P^0$  denotes a neutral pseudo-scalar meson which is either a  $\pi^0$ ,  $\eta$  or  $\eta'$ . The result for  $D^0 \rightarrow K_S^0 \pi^0$  is the most sensitive search for CP violation in the  $D^0$  system to date. These results are based on a large data sample collected by the Belle detector at the KEKB asymmetric energy electron positron collider.

**Primary author:** MOHAPATRA, Debabrata (Virginia Tech)

**Presenter:** MOHAPATRA, Debabrata (Virginia Tech)

**Session Classification:** Heavy Flavor Physics

**Track Classification:** Heavy Flavor Physics (bottom, charm, tau)