



Contribution ID: 86

Type: Talk

【312】 Combined Time-Dependent CP Violation Measurements by the B factory experiments BaBar and Belle

Wednesday 29 August 2018 16:45 (15 minutes)

We present the results of two measurements that combine the integrated luminosity of about 1.1 inverse attobarn collected by the B factory experiments BaBar and Belle in single physics analyses. The first measurement is a time-dependent CP violation measurement of $B^0 \rightarrow D_{CP}^{(*)} h^0$ decays, where h^0 denotes a light neutral hadron and the D_{CP} meson decays into two-body CP eigenstates. A first observation of CP violation governed by mixing-induced CP violation according to $\sin 2\beta$ is reported. The second presented measurement is a time-dependent Dalitz plot analysis of $B \rightarrow D^{(*)} h^0$ with $D \rightarrow K_S^0 \pi^+ \pi^-$ decays to access $\cos 2\beta$. We report the first evidence for $\cos 2\beta > 0$ and the exclusion of multi-fold solutions of the CKM Unitarity Triangle.

Primary author: ROEHRKEN, Markus (CERN)

Presenter: ROEHRKEN, Markus (CERN)

Session Classification: Nuclear, Particle- & Astrophysics (TASK)

Track Classification: Nuclear, Particle- and Astrophysics (TASK)