



Contribution ID: 68

Type: **Poster Abstracts**

CP violation in charmed hadron decays into neutral kaons

Monday, 5 June 2017 17:52 (2 minutes)

CP violation has not been observed in the charm sector. We find new measurable effect of CP asymmetries in the non-leptonic charmed hadron decaying into neutral kaons in the Cabibbo-favored and doubly Cabibbo-suppressed processes. Compared to the CP asymmetries in the singly Cabibbo-suppressed processes, the advantages of this new effect include avoiding ambiguities in theory without penguin contributions, and having larger branching fractions for measurements in experiment. The values of such CP asymmetries are at the order of 10^{-3} and hence are accessible by the LHCb and Belle II experiments in the near future. Besides, the measurement and determination of time-dependent CP asymmetries at $t=0$ is a smoking gun of direct CP violation in charm decays and signal of new physics.

Primary author: YU, Fu-Sheng

Presenter: YU, Fu-Sheng

Session Classification: Poster session