

# Measurement of $D^0$ decays to $K_L^0\pi^0$ and $K_S^0\pi^0$ at Belle

## Abstract

I will present a preliminary result on the measurement of the ratio of  $D^0$  decay rates into  $K_L^0\pi^0$  and  $K_S^0\pi^0$  final states. This ratio can be used to disentangle the Cabibbo favored  $D^0 \rightarrow \bar{K}^0\pi^0$  and doubly Cabibbo suppressed  $D^0 \rightarrow K^0\pi^0$  amplitudes, and contributes to the important goal of constraining the strong phase  $\delta_{K\pi}$  between  $D^0 \rightarrow K^-\pi^+$  and  $D^0 \rightarrow K^+\pi^-$ . The measurement is based on a subset of the large amount of data accumulated by the Belle detector at the KEKB  $e^+e^-$  collider, Japan.

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