

Measurement of the CKM angle γ in $B^{-/+} \rightarrow D^{(*)} K^{(*)-/+}$ decays with a Dalitz plot analysis of D decays to $K0_S \pi^+ \pi^-$ and $K0_S K^+ K^-$

We present an updated measurement of the CKM unitarity triangle angle γ using a Dalitz plot analysis of neutral D meson decays to the $K0_S \pi^+ \pi^-$ and $K0_S K^+ K^-$ final states produced in the processes $B^{-/+} \rightarrow D^{(*)} K^{(*)-/+}$, with $D \rightarrow D \pi^0$, $D \gamma$, and $B^{-/+} \rightarrow D K^{(*)-/+}$, with $K^{(*)-/+} \rightarrow K0_S \pi^{*+/-}$. The analysis is based on the complete data sample consisting of 467 million $B \bar{B}$ pairs collected by the BaBar detector at the PEP-II $e^+ e^-$ asymmetric-energy storage rings.

Author: LONG, Owen (University of California Riverside)

Presenter: LONG, Owen (University of California Riverside)

Track Classification: CP-violation