

CPV and CPT in B0 decays at Belle

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Measurement of ϕ_3 with a Dalitz Plot Analysis of $B^+ \rightarrow D^{(*)}K^+$ Decay

We present an update of the measurement of the unitarity triangle angle ϕ_3 using a Dalitz plot analysis of three-body neutral D decays from $B \rightarrow D^{(*)}K$ process. The results are based on a large sample of $B\bar{B}$ decays recorded at the $\Upsilon(4S)$ resonance with the Belle detector at the KEKB e^+e^- collider.

Measurement of CPT Violating Parameter

CPT is expected to be a fundamental symmetry with no significant deviations. Nonetheless we can introduce an artificial perturbation parameter to the $B^0 - \bar{B}^0$ mixing system that violates CPT symmetry. The CPT violating parameter, which is a complex number but expected to be zero, can be probed through proper time difference distributions in correlated B meson pair decays. We present a measurement of the CPT violating parameter using a large data sample collected at the $\Upsilon(4S)$ resonance with the Belle detector at the KEKB energy-asymmetric e^+e^- collider.

Measurement of CP -violating Parameters in the $B \rightarrow K_S^0 K^+ K^-$ Time-dependent Dalitz Plot Analysis

We present a measurement of CP -violating parameters in the B^0 decays with $K_S^0 K^+ K^-$ final state including $B^0 \rightarrow \phi K_S^0$ using a time-dependent Dalitz plot analysis. The results are based on a large data sample of $B\bar{B}$ pairs collected on the $\Upsilon(4S)$ resonance with the Belle detector at the KEKB asymmetric-energy e^+e^- collider.

Improved measurement of CP asymmetries in $B^0 \rightarrow (c\bar{c})K^0$ decays

We present results on time-dependent CP asymmetries in the B decays to neutral charmonium final states using a large dataset collected at the $\Upsilon(4S)$ resonance with the Belle detector at the KEKB asymmetric-energy e^+e^- collider.

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