

Dalitz plot analysis of three-body charmonium decays in BaBar.

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We study the reaction $e^+ e^- \rightarrow \gamma_{\text{ISR}} J/\psi$, where $J/\psi \rightarrow \pi^+ \pi^- \pi^0$ and $J/\psi \rightarrow K^+ K^- \pi^0$, using events obtained from the Initial State Radiation process. We measure the relative J/ψ branching fraction and perform a Dalitz plot analysis of both J/ψ decay modes using the isobar and Veneziano model.

We study the process $\gamma \gamma \rightarrow K \text{ anti-}K \pi$. We observe the decays $\eta_c \rightarrow K_s K^+ \pi^-$ and $\eta_c \rightarrow K^+ K^- \pi^0$ and perform a Dalitz analysis of both η_c decay modes. We also extract the mass dependent $K\pi$ amplitude and phase using the model-independent partial wave analysis approach.

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