

## Time dependent Dalitz plot analysis of $B^0 \rightarrow K^+ \pi^- \pi^+$ at BaBar

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A time-dependent amplitude analysis of  $B^0 \rightarrow K^+ \pi^- \pi^+$  decays is performed in order to extract the CP violation parameters of  $f_0(980)K^+$  and  $\rho^0(770)K^+$  and direct CP asymmetries of  $K^+(892)\pi^-$ . *The relative phases between  $B^0 \rightarrow K^+(892)\pi^-$  and  $B^0 \rightarrow K^*(892)\pi^+$ , relevant for the extraction of the unitarity triangle angle  $\gamma$ , is also measured. The results are obtained from the final BaBar data sample.*

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