

Abstract Submitted  
for the APR07 Meeting of  
The American Physical Society

**Time-dependent Dalitz analysis of  $B^0 \rightarrow K^0\pi^+\pi^-$**  ALEJANDRO PEREZ, University of Paris VI and VII, BABAR COLLABORATION — We present preliminary results of a maximum-likelihood, time-dependent Dalitz-plot analysis of charmless hadronic  $B^0$  decays to the  $K^0\pi^+\pi^-$  final state, from data corresponding to an integrated on-resonance luminosity of approximately  $350 \text{ fb}^{-1}$  recorded by the BaBar experiment at the SLAC PEP-II asymmetric-energy  $B$  Factory from 1999 to 2006. We measure decay amplitudes and phases for the intermediate resonance states, and extract time-dependent  $CP$  asymmetries for the  $\rho^0 K^0$  and  $f_0 K^0$  intermediate states, and direct  $CP$  asymmetries for  $K^{*+}\pi^-$ .

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Date submitted: 10 Jan 2007

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