

Abstract Submitted
for the APR05 Meeting of
The American Physical Society

Measurement of γ in $B^\pm \rightarrow D^{(*)0}K^\pm$ decays by a Dalitz analysis of $D^0 \rightarrow K_S\pi^-\pi^+$ LUIGI LI GIOI, University of Rome, BABAR COLLABORATION
— We present the measurement of the unitary triangle angle γ obtained studying the direct CP violation in the decay $B^\pm \rightarrow D^{(*)0}K^\pm$ (with $D^* \rightarrow D^0\pi^0, D^0\gamma$) and $D^0 \rightarrow K_S\pi^-\pi^+$. The method is based on the analysis of Dalitz distribution of the three-body decay of the neutral D meson and exploits the interference between D^0 and \bar{D}^0 to extract both the weak and strong phases. The analysis is performed using a sample of 227 million $B\bar{B}$ pairs recorded at the $\Upsilon(4S)$ resonance with the *BaBar* detector at the *PEP-II* asymmetric e^+e^- storage rings.

Christopher Hearty
University of British Columbia

Date submitted: 07 Jan 2005

Electronic form version 1.4