Abstract Submitted
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D^0 mixing at the BaBar experiment: recent results GIULIA CASAROSA, INFN Sezione di Pisa, BABAR COLLABORATION — I will discuss recent experimental results for $D^0 - \bar{D}^0$ mixing measurement by the *BABAR* experiment. In particular I will present the time dependent Dalitz plot analysis of $D^0 \to K_S h^+ h^-$ ($h = \pi, K$) which allows a direct measurement of x and y, the mixing parameters that describe, respectively, mass and width differences between the mass eigenstates of the neutral D system. The D^0 candidates are selected from $D^{*+} \to D^0 \pi^+$ and $D^{*-} \to \bar{D}^0 \pi^-$ decays and their flavors are tagged at production by the charge of the pion from D^* decay. The events are produced from electron-positron annihilations at a center-of- mass energy of about 10.58 GeV. We use a data sample with an integrated luminosity of 468.5 fb^{-1} recorded by the *BABAR* experiment at the PEP-II asymmetric-energy B factory at SLAC.

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