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Charm mixing and CP violation at CDF KIM GIOLO, Purdue, CDF COLLABORATION — Mixing and CP violation in the charm sector are considerably smaller than that in b-sector, and therefore could be sensitive to effects from new physics. The CDF experiment has an active program of precision charm physics exploiting the large sample of fully reconstructed charm decays obtained with the diplaced vertex trigger. Two analyses are searching for evidence for D^0 - \bar{D}^0 mixing; one based on meauring $\Delta\Gamma$ in $D^0 \to \pi^+\pi^-$ or K^+K^- , and the other searching for time dependence in doubly cabibbo suppressed $D^0 \to K^+\pi^-$ decays. Comparison of the decay $D^+ \to \pi^+\pi^+\pi^-$ to the charge conjugate reaction is sensitive to CP violation.

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