

Abstract Submitted  
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**The Upgraded CDF II Fast Track Trigger** ROBERT FORREST,  
University Of California, Davis — The CDF eXtremely Fast Tracker (XFT) trigger system reconstructs charged particle tracks transverse to the beam line using hit data from the axial layers of the central drift chamber. These tracks are then associated with activity in other detector elements to find electron and muon candidates for use in trigger decisions. The XFT system has been upgraded to make use of the existing stereo layers of the chamber. The upgrade improves fake rejection, as well as enabling three dimensional reconstruction and extrapolation of tracks at the trigger level. This results in a higher purity of selected events, and controls the non-linear growth of trigger rates with increasing instantaneous luminosity. We describe the upgraded XFT system and present preliminary results on its performance with collision data at various high instantaneous luminosities.

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