Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Measurement of the exclusive semileptonic decays $B \to D\tau^-\bar{\nu}_\tau$ and $B \to D^*\tau^-\bar{\nu}_\tau$ at BABAR MANUEL FRANCO SEVILLA, Stanford University and SLAC National Accelerator Laboratory, BABAR COLLABORATION — We present measurements of the branching fractions of the exclusive semileptonic decays $B \to D\tau^-\bar{\nu}_\tau$ and $B \to D^*\tau^-\bar{\nu}_\tau$. The analysis uses 471 million $B\bar{B}$ pairs, the full data sample collected by the BABAR detector at the PEP-II e^+e^- asymetric-energy collider, located at SLAC National Accelerator Laboratory. We select events with a D or D^* meson and a light lepton (e or μ) recoiling against a fully-reconstructed B meson. We perform a joint fit to the lepton spectrum and the squared-missing-mass distribution to discriminate signal events from the background, which is predominantly $B \to D^{(*)}\ell^-\bar{\nu}_\ell$. A control sample of identified $D^{**}\ell^-\bar{\nu}_\ell$ events is included in the fit to estimate the background contribution from these decays.

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Date submitted: 07 Jan 2011 Electronic form version 1.4