Abstract Submitted
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Measurement of the Charge Asymmetry in Semileptonic B_s^0 Decays KOSTYANTYN HOLUBYEV, Lancaster University, D0 COLLABORATION — We have performed the first direct measurement of the time integrated, flavor untagged, charge asymmetry in semileptonic B_s^0 decays, $A_{SL}^{s,unt}$, by comparing the decay rate of $B_s^0 \to \mu^+ D_s^- \nu X$, where $D_s^- \to \phi\pi^-$ and $\phi \to K^+K^-$, with the charge-conjugate $\bar{B}_s^0$ decay rate. This sample was selected from 1.3 fb^{-1} of data collected by the D0 experiment in Run II of the Fremilab Tevatron collider. We obtain $A_{SL}^{s,unt} = (1.23 \pm 0.97 \pm 0.17)\%$ which can be translated to a measurement of the CP-violating phase in B_s^0 mixing: $(\Delta\Gamma_s/\Delta m_s)\tan\phi_s = (2.45 \pm 1.93 \pm 0.35)\%$.

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