

Abstract Submitted
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A search for $Wb\bar{b}$ and WH production in $p\bar{p}$ collisions at $\sqrt{s}=1.96$ TeV using 1fb^{-1} of data. VENKATESH KAUSHIK, JAEHOON YU, HYUN-WOO KIM, D0 COLLABORATION — A search for $Wb\bar{b}$ and WH production in $p\bar{p}$ collisions at a center of mass energy of $\sqrt{s} = 1.96$ TeV is presented. Events containing one isolated electron, missing transverse energy and one or two b-tagged jets are considered. The integrated luminosity accumulated by the DØ experiment at the Tevatron collider corresponds to 1.0fb^{-1} . In the double b-tagged sample, good agreement between data and the Standard Model is achieved only when $Wb\bar{b}$ production is included. Since we cannot establish its presence with high significance yet, we establish a 95% C.L. upper limit on the $Wb\bar{b}$ production cross section by requiring b jets with transverse momenta $p_T > 20$ GeV and a pseudorapidity $\eta < 2.5$. The upper limit on WH production cross section is obtained by requiring additional selection on the $b\bar{b}$ invariant mass to minimize $Wb\bar{b}$ background contributions to the Higgs signal. Since its mass is unknown, Higgs masses in the range of 115 GeV/ c^2 to 155 GeV/ c^2 are scanned to establish the upper limit.

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