

Abstract Submitted  
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**Simultaneous measurement of the ratio  $\mathcal{B}(t \rightarrow Wb)/\mathcal{B}(t \rightarrow Wq)$  and the top quark pair production cross section with the D0 detector at  $\sqrt{s} = 1.96$  TeV** SUHARYO SUMOWIDAGDO, Florida State University, D0 COLLABORATION — We present the first simultaneous measurement of the ratio of branching fractions,  $R = \mathcal{B}(t \rightarrow Wb)/\mathcal{B}(t \rightarrow Wq)$ , with  $q$  being a  $d$ ,  $s$ , or  $b$  quark, and the top quark pair production cross section  $\sigma_{t\bar{t}}$  in the lepton plus jets channel using  $0.9 \text{ fb}^{-1}$  of  $p\bar{p}$  collision data at  $\sqrt{s} = 1.96$  TeV collected with the D0 detector. We extract  $R$  and  $\sigma_{t\bar{t}}$  by analyzing samples of events with 0, 1 and  $\geq 2$  identified  $b$  jets.

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