

Abstract Submitted  
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**Search for Charged Higgs Boson decaying into top and bottom quarks** LIANG LI, University of California, Riverside, D0 COLLABORATION — We present an improved search for quark fusion production  $q\bar{q}' \rightarrow H^+$  of the charged Higgs boson reconstructed in the  $t\bar{b}$  final state using  $5.4 \text{ fb}^{-1}$  of data collected by the D0 detector. We find no evidence for charged Higgs production and set limits on the production cross-section for a variety of theoretical models.

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