SEARCH FOR MSSM HIGGS BOSON PRODUCTION IN $p\bar{p}$ COLLISIONS AT $\sqrt{s} = 1.96$ TeV, WITH A HIGGS DECAYING INTO $\tau$’s

Abstract

by

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We present a search for the production of neutral Higgs bosons in association with bottom quarks in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV. The cross section for this process is enhanced in many extensions of the Standard Model (SM), such as in its Minimal Supersymmetric extension (MSSM) at large $\tan \beta$. The data, corresponding to a recorded integrated luminosity of 1 fb$^{-1}$, were collected with the DØ detector at the Fermilab Tevatron Collider. In the absence of a signal a 95% C.L. limit is set on the production cross section times branching ratio, and the results are also interpreted in the MSSM.