Contribution ID: **40** Type: **not specified**

Search for Neutral Supersymmetric Higgs Bosons in ppbar Collisions at sqrt(s)=1.96 TeV

Tuesday 18 August 2009 14:00 (1 minute)

Please give a brief summary of your poster

We present a search for Higgs bosons at a center-of-mass energy of $\sqrt{s}$ =1.96~TeV using up to 5~fb^{-1} of data collected with the D0 detector at the Fermilab Tevatron collider. In Supersymmetric models, Higgs boson production cross sections can be significantly enhanced compared to the Standard Model. The search includes the $\tau\tau$, b$\tau\tau$ and bbb(b) final states. Over much of the parameter space the dominant decay process is $\rightarrow bbar$ but the tau final states provide better background suppression. The di-tau channels also complement the hb associated production modes through reduced dependence on the details of the Supersymmetric model under test. Significant improvements resulting from the larger data sets and improved analyses will be presented. The sensitivity is further increased by the combination of the three channels and this will also be presented.

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Session Classification: Poster Session

Track Classification: Poster Session