

Search for standard model Higgs in $VH \rightarrow \nu\nu b\bar{b}$ ($V = W \text{ or } Z$) channel

Monday 27 July 2009 15:25 (20 minutes)

We present a search for the Standard Model Higgs boson produced in association with a Z or a W boson in p-pbar collisions at a center-of-mass energy of $\sqrt{s} = 1.96$ TeV. The search is made using the latest amount of data collected by the CDF detector at the Fermilab Tevatron. We consider the scenario where the Higgs boson decays into a b-bbar pair and either the Z decays into neutrinos or the lepton originating from the W-decay escapes detection, leading to an expected signature of two b-jets, no leptons, and missing transverse energy. A data-driven model of the QCD jet background and the advanced analysis techniques used to increase the search sensitivity are also presented.

Authors: JUSTE, Aurelio (Fermilab); Dr JAMES, Eric (Fermi National Accelerator Lab); WAHL, Horst (Florida State University); SOLDNER-REMBOLD, Stefan (University of Manchester); TBA

Presenter: Dr JAYATILAKA, Bodhitha (Duke University)

Session Classification: Higgs Physics I

Track Classification: Higgs Physics