

Searches for high mass Higgs at the Tevatron (WW(*) final states)

Thursday, 16 July 2009 15:10 (20 minutes)

We present searches for standard model Higgs production in p-pbar collisions at $\sqrt{s} = 1.96$ TeV using the latest amount of data collected by the CDF and D0 detectors at the Fermilab Tevatron. We consider the diboson decay channel $H \rightarrow WW$, the dominant decay mode for Higgs boson masses above $140 \text{ GeV}/c^2$. We also require that both W bosons decay leptonically. In order to maximize sensitivity, a combined matrix element method and neural network approach is used to distinguish signal from the large backgrounds. All Higgs production modes are considered, and cross-section limits relative to the combined standard model predictions are presented. In addition, searches for the Standard Model Higgs boson produced via the WH to $WW(*)$ process are presented.

Primary author: Mr HIDAS, Dean (University of Duke)

Presenter: Mr HIDAS, Dean (University of Duke)

Session Classification: III. Higgs and New Physics

Track Classification: Higgs and New Physics