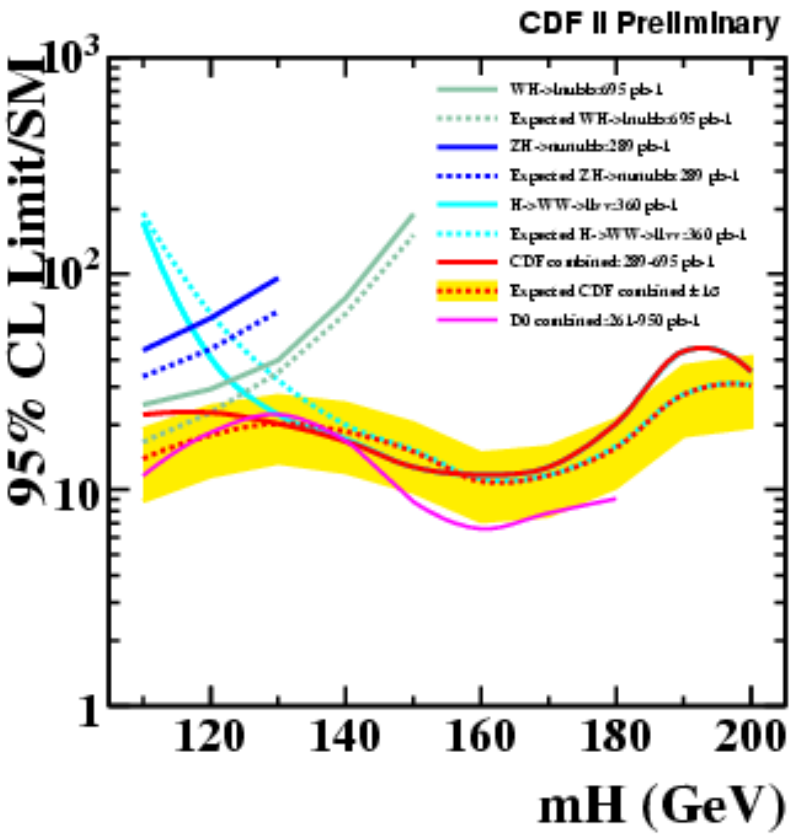

Figure 4: The combined upper limit as function of Higgs masses between 110 and 200 GeV/c^2 as well as the individual limits from individual channels.

5 Conclusions

We have described a combination of several searches for Standard Model Higgs production at CDF using a data sample up to 695 pb^{-1} of integrated luminosity. The channels considered are $WH \to l\nu b\bar{b}$, $ZH \to \nu\bar{\nu}b\bar{b}$, and $gg \to H \to W^+W^-$. We have calculated combined upper limits on the ratio of Higgs cross section times the branching ratio to its Standard Model prediction (R_{95}) for Higgs masses between 110 and 200 GeV/c^2. The results are in a good agreement with the expectations obtained from pseudo-experiments. We have also recomputed upper limits for each individual channel using the same technique as a consistent check and are able to reproduce the blessed results over all the channels. The combined limit is still order of magnitude higher than the Standard Model prediction, but it will be greatly improved once the results are updated with 1 fb^{-1} data for summer 2006.