

Combined Upper Limit on Standard Model Higgs Boson Production at D0

We present the combination of the searches for the Standard Model Higgs boson 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. The major contributing processes include associated production (WH and ZH) and gluon fusion (gg to H to WW(*)). The significant improvements across the full mass range resulting from the larger data sets, improved analyses and inclusion of additional channels are discussed; we expect sensitivity to a Higgs boson with a mass around 160 - 170 GeV with this data set.

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