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Combined Upper Limit on Standard Model Higgs Boson Production at D0 in $p\bar{p}$ Collisions at $\sqrt{s}=1.96$ TeV MICHAEL KIRBY, Northwestern University, D0 COLLABORATION — 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 4 fb^{-1} of data collected with the D0 detector at the Fermilab Tevatron collider. The major contributing processes include associated production ($WH \rightarrow l\nu bb$, $ZH \rightarrow \nu\nu bb$, $ZH \rightarrow llbb$, and $WH \rightarrow WWW^{(*)}$) and gluon fusion ($gg \rightarrow H \rightarrow WW^{(*)}$). The significant improvements across the full mass range resulting from the larger data sets, improved analyses and inclusion of additional channels are discussed.

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