

# Search for the Standard Model Higgs Boson in the $ZH \rightarrow \ell\ell b\bar{b}$ Channel at CDF

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We present a search for the Standard Model Higgs boson produced in association with a  $Z$  boson in the  $\ell^+ \ell^- b\bar{b}$  ( $\ell = e, \mu$ ) final state using the CDF detector. The latest iteration of this analysis has benefited from several improvements, including multivariate

lepton identification, the inclusion of additional triggers based on missing transverse energy, and the addition of expert discriminants to better separate signal and background. These improvements have led to significant increases in signal acceptance. We present the latest limits on the Higgs production cross section, and detail the new techniques used in this analysis.

**Presenter:** JUSTIN PILOT

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