

Search for Higgs Boson Produced in Association with a Vector Boson Using Like-Sign Dilepton Events at CDF

We present a search for the neutral Higgs boson produced in association with a vector boson using high- p_T isolated like-sign dilepton events in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV. The data were collected with the CDF-II detector at the Fermilab Tevatron collider. We employ the Boosted Decision Tree technique for separating the backgrounds from signal events to improve the search sensitivity. No signal is observed in the CDF data and we set limits on the production rate of the Higgs boson in the standard model and in an alternative fermiophobic scenario.

Primary author: YAMATO, Daisuke (Osaka City University)

Presenter: YAMATO, Daisuke (Osaka City University)