Contribution ID: **10** Type: **not specified**

High mass SM Higgs boson searches at CDF

Tuesday 18 August 2009 14:00 (1 minute)

Please give a brief summary of your poster

We present a search for Standard Model (SM) Higgs to WW production in dilepton plus missing transverse energy final states using approximately 5.0 fb-1 of integrated luminosity. In order to maximize sensitivity, the multivariate discriminants used to separate signal from background in the opposite-sign dilepton event sample have been independently optimized for final states with either zero, one, or two or more identified jets. All significant Higgs boson production modes (gluon fusion, associated production with either a W or Z boson, and vector boson fusion) are considered in determining potential signal contributions. We also incorporate a separate analysis of the same-sign dilepton event sample which can potentially contain additional signal events originating from the associated Higgs boson production mechanisms. Cross section limits relative to the combined SM prediction are presented for a range of different Higgs mass hypothesis between 110 and 200 GeV/c^2.

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Session Classification: Poster Session

Track Classification: Poster Session