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Measurement of the Standard Model ZZ cross-section and search for heavy Standard Model Higgs in the final state $ZZ \rightarrow ll\bar{l}$ at CDF
TATIANA RODRIGUEZ, ELLIOT LIPELES, University of Pennsylvania, NIGEL LOCKYER, TRIUMF, CDF COLLABORATION — We present a measurement of the ZZ cross-section at CDF using $ZZ \rightarrow ll\bar{l}$, expected to be the single most precise measurement of this process at a hadron collider to date. We base our work on the previously published CDF analysis. We expand the lepton categories and significantly improve the acceptance, in addition to benefitting from the increased luminosity. We also extend the scope of this analysis to set a limit on $H \rightarrow ZZ^* \rightarrow ll\bar{l}$ in the 140 GeV to 155 GeV mass range, and expect to gather sufficient statistics to compare the kinematic distributions of ZZ to the Standard Model expectations.

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