Search for New Physics in the DiElectron Channel at CDF

SAM HARPER, Oxford University, CDF COLLABORATION — We present a measurement of the Drell-Yan mass spectrum at high energies in the electron channel using 820 inverse picobarns of proton-antiproton collision data taken with the CDF II detector at a centre of mass energy of 1.96 GeV. We examine this mass spectrum for any excesses over Standard Model predictions and also interpret the mass spectrum to provide limits on new neutral massive bosons decaying to two electrons. Examples of such particles include $Z'$ bosons resulting from various new physics models and the Randal-Sundrum Graviton.

Song Ming Wang
Academia Sinica