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The Search for Large Extra Dimensions via Single Photon plus Missing Energy Final States ALICIA GOMEZ, Florida State University, DZERO COLLABORATION — In high energy particle physics there is a hierarchy problem in the standard mode. The force of gravity is orders of magnitude weaker than the other forces. A theorized solution to this problem is that the Kaluza-Klein graviton carryies much of the gravitational force into another dimension. We are looking for evidence of large extra dimensions by analyzing quark antiquark collisions which result in the production of a single photon and missing transverse energy. The data we are using is from the D0 experiment at the Tevatron collider at Fermilab National Accelerator Laboratory. The method we are using for our analysis is to restrict the data by imposing certain quality requirements which are pertinent to our analysis. From this data sample, we analyze distance of closest approach histograms to determine which events are best for analysis. Using these events we will set limits on the fundamental mass scale for large extra dimensions.

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