

Abstract Submitted
for the APR10 Meeting of
The American Physical Society

A Search for Randall-Sundrum Gravitons in the Dielectron and Diphoton Channels with 5.4 fb⁻¹ of Data NING ZHOU, Columbia University, D0 COLLABORATION — A search for the lightest Kaluza-Klein mode of the graviton in the Randall-Sundrum (RS) model with a warped extra dimension is performed in the dielectron and diphoton channels. This search uses 5.4fb⁻¹ of data from $p\bar{p}$ collisions at a center-of-mass energy of 1.96 TeV, collected by the D0 detector at the Fermilab Tevatron between October 2002 and Summer 2009. We search for resonances in the invariant mass spectrum of two electromagnetic (EM) objects from the decay of gravitons to electron-positron or photon pairs making use of the unique spin-2 property of gravitons in the final state angular distribution.

Todd Adams
Florida State University

Date submitted: 20 Oct 2009

Electronic form version 1.4