

Abstract Submitted
for the APR05 Meeting of
The American Physical Society

Search for Second Generation Leptoquarks XIAOFEI SONG, Northern Illinois University, DZERO COLLABORATION — Leptoquarks are hypothesized particles that appear in many extensions of the Standard Model. At the Fermilab Tevatron, they would mainly be pair-produced and decay to a lepton and a quark. In principle, although leptoquarks could decay into any combination of a lepton and a quark, indirect experimental limits lead to the assumption that there would be three generations, each coupling to quarks and leptons within the same generation. The analysis presented here is a search for second generation leptoquarks in the dimuon channel, based on about 350 pb^{-1} of integrated luminosity collected in Run II. The dominant backgrounds consist of Drell-Yan process and top pair production. The data are consistent with Standard Model backgrounds and no evidence of leptoquark production is found. Improved lower limits on the leptoquark mass have been derived.

Sharon Hagopian
Florida State University

Date submitted: 09 Jan 2005

Electronic form version 1.4