

Abstract Submitted
for the APR18 Meeting of
The American Physical Society

Geane Track Reconstruction for Fermilab Muon g-2 NICHOLAS KINNAIRD, Boston Univ — The Fermilab Muon g-2 experiment has the goal of measuring the anomalous magnetic moment of the muon to 140 ppb. This measurement is made by analyzing the modulation of decay positrons from positive muons detected with calorimeters. Two straw tracking detectors are used to measure the beam profile, identify pileup and muons lost from the beam storage region, and to cross-calibrate the calorimeters. The implementation of a Geant4-based error propagation and chi-squared minimization fitting algorithm for track reconstruction will be presented, along with simulation and commissioning data results.

Nicholas Kinnaird
Boston Univ

Date submitted: 09 Jan 2018

Electronic form version 1.4