Abstract Submitted
for the APR13 Meeting of
The American Physical Society

LENS: μLENS Simulations, Analysis, and Results[1] CHARLES RASCO, Louisiana State University, LENS COLLABORATION — Simulations of the Low-Energy Neutrino Spectrometer prototype, μLENS, have been performed in order to benchmark the first measurements of the μLENS detector at the Kimballton Underground Research Facility (KURF). μLENS is a 6x6x6 celled scintillation lattice filled with Linear Alkylbenzene based scintillator. We have performed simulations of μLENS using the GEANT4 toolkit. We have measured various radioactive sources, LEDs, and environmental background radiation measurements at KURF using up to 96 PMTs with a simplified data acquisition system of QDCs and TDCs. In this talk we will demonstrate our understanding of the light propagation and we will compare simulation results with measurements of the μLENS detector of various radioactive sources, LEDs, and the environmental background radiation.

[1]This work funded by NSF Grants 1001394 and 1001078

Charles Rasco
Louisiana State University

Date submitted: 11 Jan 2013 Electronic form version 1.4