Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

MiniBooNE $\bar{\nu}_e$ Appearance Results ZARKO PAVLOVIC, Los Alamos National Lab, MINIBOONE COLLABORATION — The MiniBooNE experiment was designed to test the results from the LSND experiment which saw evidence for $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ oscillations at $\Delta m^2 \sim 1\ eV^2$. The LSND signal cannot be reconciled with neutrino oscillations observed with solar and atmospheric neutrinos within the framework of three Standard Model neutrinos. Previously MiniBooNE looked for the appearance of electron neutrinos in a ν_μ beam but saw no evidence for oscillations. At the same time an unexplained excess of electron-like events below a reconstructed neutrino energy of 475 MeV was observed. Currently MiniBooNE is collecting data using the $\bar{\nu}_\mu$ beam. These data provides a direct check of LSND as well as further insight in low energy excess observed in neutrino mode. The recent results of the anti- neutrino appearance analysis will be presented.

Zarko Pavlovic
Los Alamos National Lab

Date submitted: 30 Jun 2009 Electronic form version 1.4