Abstract Submitted
for the APR08 Meeting of
The American Physical Society

High track multiplicity events in SciBooNE JOAN CATALA-PEREZ, IFIC (U. Valencia/CSIC) — SciBooNE is a neutrino cross section experiment made to accurately measure neutrino and anti-neutrino cross sections in carbon below 1 GeV neutrino energy. This talk focuses on preliminary results for 3 or more tracks (high track multiplicity) neutrino events. High track multiplicity events in SciBooNE are largely due to charged current neutral pion production (nu + n -> mu + p + pi0). Charged current neutral pion production studies are particularly interesting because neutral pion decay to two photons may be reconstructed as an electron neutrino charged current interaction, so it represents a background for electron neutrino appearance in oscillation experiments. The SciBooNE detector gives good particle identification capabilities provided by dE/dx information and fine granularity of the main sub-detector SciBar, reconstruction of electromagnetic energy clusters in the electromagnetic calorimeter 'Electron Catcher' and muon tagging in the Muon Range Detector. SciBooNE data taking started in June 2007.

Joan Catala-Perez
IFIC (U. Valencia/CSIC)

Date submitted: 13 Jan 2008 Electronic form version 1.4