**Identification of Recoil Proton Tracks for a Neutrino Neutral-Current Elastic Scattering Cross-Section Measurement at SciBooNE**
HIDEYUKI TAKEI, Tokyo Institute of Technology, SCIBOONE COLLABORATION — SciBooNE is an experiment for measurement of neutrino-nucleus interaction cross-sections in the few GeV energy region using the FNAL Booster Neutrino Beam. The SciBar detector is a fully active, finely segmented scintillator tracking detector. SciBar's proton/pion separation capability allows proton tracks to be identified, enabling a measurement of neutral-current elastic scattering cross-section. The neutral-current elastic scattering cross-section is sensitive to the axial form factor, and so has bearing on our understanding nucleon spin structure. Proton/pion separation can also reduce one of the backgrounds for charged-current quasi elastic scattering channel. In this talk, I will present the proton identification ability of SciBar.

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Date submitted: 11 Jan 2008                    Electronic form version 1.4