

SciBooNE's neutral current single pion production measurements

Thursday, 21 May 2009 17:30 (20 minutes)

The next generation of accelerator neutrino oscillation experiments will require precise neutrino cross-section measurements. Especially the neutral current neutral pion production is the biggest background for the electron neutrino appearance search. SciBooNE is ~ 1 GeV muon neutrino and anti-neutrino scattering experiment based at Fermilab, USA. SciBooNE can reconstruct neutral pions using two gamma rays converted in the SciBar detector, which is full active scintillating tracker, for the measurement of the neutral current neutral pion production. We reports measurement of the neutral current neutral pion production to charged current inclusive cross section ratio with preliminary study of systematic uncertainty.

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Session Classification: Single pion production I

Track Classification: Single pion production