Neutrino induced charm production in the CHORUS experiment at CERN

Oliver Melzer

NIKHEF
CHORUS Collaboration

June 7, 1998

Abstract

The CHORUS (WA95) experiment is designed for $\nu_\mu \to \nu_\tau$ oscillation search in the CERN wide–band neutrino beam. It is a hybrid experiment with an emulsion target and an electronic tracking system, opening the possibility to study the production and decay of short–lived particles with a three dimensional spatial resolution of $\sim 1\mu$m. From 1994 to 1997 $\sim 8.4 \times 10^5$ ν_μ charged current neutrino interactions were recorded in the emulsion target. Events are being scanned and analysed. First observations of charmed mesons produced in neutrino induced deep inelastic and diffractive interactions will be presented.