Contribution ID: **70** Type: **Contributed Talk**

The neutrino oscillation OPERA experiment Target Tracker

Monday 19 February 2007 15:15 (20 minutes)

The main task of the Target Tracker of the long baseline neutrino oscillation OPERA experiment, is to locate in which of the target elementary constituents, the lead/emulsion bricks, the neutrino interactions have occurred and also give calorimetric information about each event. The technology used consists in walls of two planes of long plastic scintillator strips, one per transverse direction. Wavelength shifting fibres collect the light signal emitted by the scintillator strips and guide it to both ends where it is read by multi–anode photomultiplier tubes. The Target Tracker is composed of 62 scintillating walls of a total surface of about 6000 m 2. Each wall is made by assembling 4 horizontal and 4 vertical modules of 64, 7 m long, scintillating strips. This detector has observed the first neutrino interactions during August 2006. In this paper we will describe all elements used for the construction and operation of this detector and we will also give its main characteristics.

Primary author: DRACOS, Marcos (CNRS/IN2P3 Université Louis Pasteur)

Presenter: DRACOS, Marcos (CNRS/IN2P3 Université Louis Pasteur)

Session Classification: Session 2