DISCRETE 2010



Contribution ID: 47

Type: not specified

OPERA: A first tau-neutrino appearance candidate.

Monday, 6 December 2010 17:25 (25 minutes)

OPERA is a long-baseline neutrino experiment dedicated to the study of muon-neutrino to tau-neutrino oscillation. Using the high-energy CERN to LNGS beam (CNGS), it is the first experiment looking directly for tau-neutrino appearance from oscillation of muon-neutrinos. Runs with CNGS neutrinos are carried out successfully since 2008. After a brief introduction on the OPERA hybrid detector and the main parameters and procedures of the experiment, recent results are presented. A first candidate for a tau-neutrino charged-current event is described in detail. The background and the corresponding significance of the event are evaluated.

Primary author: Dr WONSAK, Bjoern (University of Hamburg)

Presenter: Dr WONSAK, Bjoern (University of Hamburg)

Session Classification: Neutrino mass, mixing and discrete symmetries (2)

Track Classification: Neutrino mass and mixing