

## Highlights from the Opera Experiment

*Monday, 28 May 2012 10:40 (25 minutes)*

The Opera Experiment (Oscillation Project with Emulsion tRacking Apparatus) is a long baseline neutrino experiment in the CERN Neutrino to Gran Sasso (CNGS) beamline. The muon neutrino beam produced at CERN is directed to the LNGS (Laboratori Nazionali del Gran Sasso) and after a flight of 730km detected in the Opera detector, situated underground in Hall C of the laboratory. The goal of the Opera experiment is to detect the muon to tau neutrino oscillation in appearance mode, i.e. by detecting tau decays. The technique used for this is the so-called emulsion cloud chamber (ECC) together with an electronic detector. This talk will give an update on the neutrino oscillation studies, the statistics of the year 2008/09 with an outlook on the results for 2010 and on possible new tau candidates. Finally the issues on the neutrino speed measurement will be presented and discussed.

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**Session Classification:** Opening Remarks