



Contribution ID: 113

Type: **not specified**

## Neutrino velocity measurements

*Tuesday, 29 November 2011 18:15 (30 minutes)*

The OPERA neutrino experiment in the underground Gran Sasso Laboratory has measured the velocity of neutrinos from the CERN CNGS beam over a baseline of 730 km with unprecedented accuracy. The measurement is based on the high-statistics data taken by OPERA in the years 2009, 2010 and 2011.

Dedicated upgrades of the CNGS timing system and of the OPERA detector, as well as a high-precision geodesy campaign for the measurement of the neutrino baseline allowed reaching comparable systematic and statistical accuracies. A neutrino time of flight corresponding to a velocity higher than the speed of light was observed.

**Presenter:** LONGHIN, Andrea (LNF)

**Session Classification:** Satellite Meeting