## LABORATORI NAZIONALI DEL GRAN SASSO

## SEMINAR ANNOUNCEMENT

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## New results of the OPERA experiment

The OPERA experiment is designed to prove neutrino oscillations in the  $v_{\mu} \rightarrow v_{\tau}$  channel in appearance mode. It has been taking data for five years, from 2008 to 2012, with the CNGS neutrino beam. Muon neutrinos are produced at CERN and delivered 730 km away at the underground INFN Gran Sasso Laboratory where the OPERA detector is located. The micrometric accuracy of nuclear emulsions, instrumenting the 1.25kton target region of this detector, allows the detection of the short living tau lepton through the direct observation of both the production and decay vertex. New results on the oscillations will be disclosed in this seminar.