## XX International Workshop on Deep-Inelastic Scattering and Related Subjects



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## Measurement of the neutrino velocity with the OPERA detector in the CNGS beam

Tuesday 27 March 2012 16:30 (18 minutes)

The OPERA neutrino experiment at the underground Gran Sasso Laboratory has measured the velocity of neutrinos from the CERN CNGS beam over a baseline of about 730 km with much higher accuracy than previous studies conducted with accelerator neutrinos. The measurement is based on 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.

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Session Classification: Electroweak and searches

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