



Contribution ID: 28

Type: **not specified**

## First Experience utilizing a High-Density Laser Scanner for the NoVA project

*Tuesday 14 September 2010 09:20 (20 minutes)*

The NuMI Off-Axis  $\nu e$  Appearance Experiment (NOvA) project is currently in its construction phase and estimated to be operational around 2015. This experiment is an extension of the Neutrino at Main Injector (NuMI) project that has been operational for several years now. For NuMI a Neutrino beam is produced at Fermilab and directed to a detector located underground at the Soudan Mine in Minnesota. For NOvA a near and far detector need to be placed at a divergence angle of 13.6 mrad of nominal NuMI beam center line for the detection of Neutrinos at a different energy state. These detectors are constructed from plastic extrusions filled with silicon oil. This paper concentrates on the construction of the larger far detector, its dimensional tolerance requirements and the measurement approach utilizing the HDS6100 scanner for documenting the parts location during the detector construction.

**Primary author:** Mr FRIEDSAM, Horst (Fermi National Laboratory)

**Co-authors:** Dr OSHINOWO, Babatunde (Fermi National Laboratory); Dr BOCEAN, Virgil (Fermi National Laboratory)

**Presenter:** Mr FRIEDSAM, Horst (Fermi National Laboratory)

**Session Classification:** D2, S1, Survey & alignment of machine components & experiments

**Track Classification:** Survey & alignment of machine components and experiments