**Atmospheric Neutrinos At MINOS**

**Atmospheric Neutrinos?**

The MINOS Far Detector is a 5-story underground neutrino detector in a magnet field. It is able to determine the charge of neutrino produced in interactions.

The MINOS Far Detector was completed in July 2005.

**Background Rejection**

The background is dominated by cosmic muons travelling down the rock planes and suffering into the detector. The background studies have reduced the cosmic muon signal to 0.3% while retaining 10-20% signal efficiency. The background was vetoed when installed in July 2005.

**Upward Going Muons**

MINOS has already observed 5 contained events and 24 events during commissioning.

**Event Information**

The Far Detector is a 5-story underground neutrino detector in a magnet field. The detector is made of 191 plastic Čerenkov counter modules. The detector also has 27 K vertex detectors.

**Summary**

MINOS has already observed 5 contained events and 24 events during commissioning.

**Atmospheric Neutrinos: Windows to CPT violation?**

The magnetic, solar and MINOS neutrino results cannot be accommodated in a conventional flavor scheme. CPT violation has the potential to explain the measured small differences in the oscillation parameters. MINOS will be able to make a measurement of atmospheric neutrino parameters by measuring muon fluxes close to the horizon.