

## **ASYMMETRIES OF SECONDARY MUONS AT SEA LEVEL WITH LOW SYSTEMATICS**

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Project GRAND has the capability of measuring the angle and identity of single tracks of muons. The array is comprised of 64 stations each containing eight proportional wire planes with a 50 mm steel absorber plate placed above the bottom two planes in each station. The added steel absorber plate allows muon tracks to be separated from the less massive electrons. Over 100 billion identified muon angles have been measured. With the high statistics available it is possible to obtain muon angular asymmetries by subtracting west angles from east. The subtraction eliminates most systematic errors. A preliminary analysis is performed versus solar time to obtain the effects on the muon rate due to the sun.