

Contribution ID: 767 Type: talk

## Future prospects of neutrino oscillation experiments

Friday 24 July 2015 12:15 (15 minutes)

Standard neutrino oscillation physics has entered the era of precision measurements. With a large value of  $\theta_{13}$  having been measured, the remaining unknowns yet to be determined are the mass hierarchy, CP violation and the octant of  $\theta_{23}$ . The main problem in determining these parameters is the problem of parameter degeneracy.

T2K, NOvA, SK, IceCube and the reactor experiments are all currently collecting data to resolve this problem. However if the degeneracies are severe, we will need the next set of oscillation experiments that are currently in various stages of planning/construction, such as DUNE, ESSnuSB, ICAL, PINGU and the medium baseline reactor experiments. We discuss the ability of the current and future experiments to measure the unknown parameters.

**Author:** Dr RAUT, Sushant (KTH Royal Institute of Technology)

Presenter: Dr RAUT, Sushant (KTH Royal Institute of Technology)

Session Classification: Neutrino Physics

Track Classification: Neutrino Physics