

Super-Kamiokande and T2K Joint Fit Studies for Neutrino Oscillation Parameters

Friday, 16 August 2013 14:50 (20 minutes)

I report on studies to combine the three-flavour neutrino oscillation fits to the Super-Kamiokande atmospheric data and the T2K long baseline data. With the establishment of large $\sin^2(\theta_{13})$ we now turn our attention to the remaining undetermined parameters in the neutrino sector, the mass hierarchy, $\sin^2(\theta_{23})$ octant and δ_{cp} phase. By probing these parameters simultaneously using multiple neutrino species at different energies and with different baselines we may be able to resolve the inherent degeneracies. The combination of Super-Kamiokande and T2K offers such a possibility. In a phased approach we begin with the simplest means of combining the results and plot a course for future studies.

APS member ID

61100972

Primary author: Dr IMBER, James (SUNY at Stony Brook)

Presenter: Dr IMBER, James (SUNY at Stony Brook)

Session Classification: Neutrino Physics

Track Classification: Neutrino Physics