

Atmospheric neutrino oscillation and mass hierarchy determination in Super-Kamiokande

Thursday, 12 September 2013 14:00 (20 minutes)

Oscillation of ν_μ to ν_e driven by non-zero θ_{13} mixing angle is expected to be influenced by matter effect, especially in the multi-GeV energy region. Since matter effect occurs on either neutrino or anti-neutrino depending on mass hierarchy, it is possible to deduce mass hierarchy by investigating ν_e oscillation separately for neutrino and anti-neutrino. In this talk, we will report on the study of mass hierarchy determination using atmospheric neutrino data along with the latest oscillation analysis result.

Primary author: OKUMURA, Kimihiro (ICRR,University of Tokyo)

Presenter: OKUMURA, Kimihiro (ICRR,University of Tokyo)

Session Classification: Atmospheric Neutrinos II

Track Classification: Atmospheric Neutrinos