



Poster session 2 – Tuesday 5 July

P2.022 Constraining neutrino oscillation parameters with IceCube/DeepCore

P Eller

Penn State University, USA

on behalf of IceCube collaboration

The kilometer-scale Cherenkov detector IceCube with its low energy extension DeepCore collects data with sensitivity to neutrino oscillation parameters. Interesting events are atmospheric neutrinos in the 10 GeV range, that undergo oscillation while traveling through the earth. Different neutrino flavors manifest themselves differently in the charged current interactions within the detector volume and hence are to some extent distinguishable. A simultaneous measurement of the disappearance of muon neutrinos and the appearance of tau neutrinos allows us to put constraints on the oscillation angle θ_{23} and the mass difference Δm_{31}^2 . This poster will present the current status of this analysis, including the expected sensitivity for the accumulated DeepCore data.