Contribution ID : **818** Type : **Oral**

L/E analysis and the limit on decoherence from SK

Saturday, 7 July 2007 12:17 (0:12)

Abstract content

Muon neutrino disappearance probability as a function of neutrino flight lenght L over neutrino energy E was studied. A dip in the L/E distribution was bserved in the data from Super-Kamiokande-I+II, as perdicted from the sinusoidal flavor transition probability of neutrino oscillation. The observed L/E distribution onstrained nu_mu <-> nu_tau neutrino oscillation parameters. We also present preliminary results on the constraint on the neutrino decoherence parameter.

If this papers is presented for a collaboration, please specify the collaboration

The Super-Kamiokande Collaboration

Summary

Reference

Proceedings of the 30th International Cosmic Ray Conference; Rogelio Caballero, Juan Carlos D'Olivo, Gustavo Medina-Tanco, Lukas Nellen, Federico A. Sánchez, José F. Valdés-Galicia (eds.); Universidad Nacional Autónoma de México, Mexico City, Mexico, 2008; Vol. 5 (HE part 2), pages 1311-1314

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Session Classification : HE 2.2

Track Classification : HE.2.2