30th International Cosmic Ray Conference

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Atmospheric neutrino oscillation in Super-Kamiokande

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Abstract content

The Super-Kamiokande started observation in April of 1996 and continued the data taking for five years of initial running period (SK-I) till the maintenance in July of 2001. The Super-Kamiokande continued the data taking with the half PMT density in the second period (SK-II) from resuming in December of 2002 to shutdown for the reconstruction to return the PMT density in October 2005. Using the atmospheric neutrino data of SK-I and SK-II, various types of oscillation analyses have been performed. The results from the nu_mu <-> nu_tau 2 flavor oscillation analysis and the 3 flavor oscillation analysis with the aim of searching for a non-zero 1-3 mixing will be presented. The results from an oscillation analysis including the sub- dominant oscillation effects driven by the solar oscillation terms (theta_12 and dmˆ2_12) will also be reported.

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 1319-1322

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