

CP violation in sub-GeV atmospheric neutrinos

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Sub-GeV atmospheric neutrino oscillations are a promising source of information on the leptonic CP phase δ . In that energy range the oscillations are very fast, far beyond the resolution of modern neutrino detectors. However, the necessary averaging over those fast oscillations does not wash out the CP violation effects. The propagation/oscillation of 3 neutrinos is reduced to 2 neutrino propagation/oscillation inside the Earth. The analytic results are very accurate and physically transparent for interpretation/understanding.

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