Oscillation Amplitude for Neutrino Wave Packets LUCA
VISINELLI, University of Utah/Physics Department — We present an expression
for the transition amplitude between two neutrino flavors in terms exclusively of
the neutrinos' mass eigenstates. The analysis followed does not contain any theory
concerning neutrino production and detection processes. However, the final expression
for the amplitude found happens to behave consistently with other formulas
obtained in different ways, and shows the correct ultra-relativistic limit studied by
Pontecorvo. A numerical analysis is performed to show the behavior for the expression
in the case of two neutrino generations.

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Date submitted: 17 Sep 2007   Electronic form version 1.4