



Wave Packet Description of Neutrino Oscillation in a Progenitor Star Supernova Environment

<http://www.firstlight.cn> 2007-12-31

In this work we briefly review the wave packet approach of two generation neutrino oscillation, aiming its description in a progenitor star supernova environment. We begin calculating the wave packet size in many situations: solar and supernova plasma medium, considering nuclear interactions, as well as accelerators and reactors. This quantity is important to calculate the coherence length, which we compare with the oscillation

length to verify if neutrino oscillation will or will not occur. Finally, we compare the wave packet treatment of neutrino oscillation with the plane wave formalism in a progenitor star supernova environment.

[存档文本](#)