

# Oscillation probability for non-standard interactions of neutrino propagation in matter

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In this work, an analytical expression for appearance probability has been derived for neutrino (anti-neutrino) oscillations in matter, including non-standard interactions (NSI-*propagation*). We consider two NSI parameters  $\epsilon_{e\mu}$  and  $\epsilon_{e\tau}$  to obtain the expression for  $\nu_\mu \rightarrow \nu_e$  ( $\bar{\nu}_\mu \rightarrow \bar{\nu}_e$ ) transition, relevant to the ongoing and upcoming accelerator neutrino experiments. We also compare our result to that of exact expression of the oscillation probability.

## Working group

WG1

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