

MSW with the Sterile Neutrino at Earth

In the **Earth**, for sterile neutrino of $\Delta m^2 = O(1\text{eV}^2)$ there is a matter resonant effect when

$$E_\nu^{\text{res}} = \frac{\Delta m^2 \cos 2\theta}{2\sqrt{2}G_F N} \sim O(\text{TeV})$$

