Contribution ID: **16** Type: **not specified**

Compact perturbative expressions for oscillations with sterile neutrinos in matter

Tuesday, 4 December 2018 15:00 (30 minutes)

We extend a recent perturbative framework in standard model to the schemes with sterile neutrinos. In vacuum the framework will give strictly accurate oscillation probabilities. Moreover, it can remove degeneracies of the zeroth order eigenvalues so the perturbative expressions are valid for most baselines and neutrino energies. Numerical tests show that the perturbatively calculated probabilities are more precise than all current and future experimental uncertainties. Possible utilities of the perturbative expressions will also be discussed.

Presenter: ZHANG, Xining

Session Classification: Neutrino Oscillations