Contribution ID: **752** Type: **Oral**

# Neutrino spectrum in SU$(3)_\ell \times$SU$(3)_E$ gauged lepton flavor model

*Tuesday 22 May 2018 13:45 (15 minutes)*

Massive neutrino is a clear evidence of new physics beyond the Standard Model. One of a well motivated new physics scenario is a model with gauged lepton flavor symmetry. We investigate neutrino properties in the minimal SU$(3)_\ell \times$SU$(3)_E$ gauged lepton flavor model. In this model, three new species of fermions are introduced to cancel gauge anomalies. These new fermions lead to a see-saw mechanism for neutrino mass generation. We impose the positivity of gauge boson masses and the perturbative unitarity in 2-2 scattering processes constraints to obtain viable neutrino spectrum.

**Author:** TREESUKRAT, Wararat

**Co-authors:** Dr SREETHAWONG, Warintorn; Dr UTTAYARAT, Patipan

**Presenter:** TREESUKRAT, Wararat

**Session Classification:** A12: High Energy Physics

**Track Classification:** High Energy and Particle Physics