Contribution ID: **241** Type: **Parallel Sessions**

Renormalization Group Running of Physical Parameters in Neutrino Models and Extra Dimensions

Thursday 5 July 2012 17:45 (15 minutes)

In this talk, we investigate renomalization group running of neutrino parameters such as neutrino masses and leptonic parameters in different models. The models range from the inverse seesaw model to radiative versions of the scotogenic model as well as extra-dimensional models with both one and two extra spatial dimensions. We find that most models lead to large running for theta_12, whereas the running is negligible for theta_13 and theta_23. In addition, we show that a bimaximal mixing pattern at high energies (e.g. at the GUT scale) can lead to non-zero values for theta_13 at low energies. Finally, using the running of the Higgs self-coupling constant, we derive bounds on the cutoff scale for one of the extra-dimensional models.

Author: Prof. OHLSSON, Tommy (KTH Royal Institute of Technology (SE))

Presenter: Prof. OHLSSON, Tommy (KTH Royal Institute of Technology (SE))

Session Classification: TR 8 - Neutrinos RM 219

Track Classification: Track 8. Neutrinos