Contribution ID: **32** Type: **not specified**

Lepton Number Violating Interactions and Neutrino Matter Oscillations

Friday 12 January 2018 11:30 (10 minutes)

Beyond the intriguing anomalies at reactor and short baseline experiments, the three-neutrino mixing paradigm has been highly successful in describing the neutrino oscillation data. In order to pin down the last components of this model, long baseline experiments will attempt to determine the Dirac CP violating phase and neutrinoless double beta decay experiments will put limits on the Dirac/Majorana nature and mass ordering of the active neutrinos.

Regardless of these results, new physics must be behind the generation of at least two non-zero active neutrino masses. BSM models predict the violation of lepton number in this process, and effective operators can describe these effects at low energy in a model independent way. We explore the possibility that LNV interactions affect the propagation of neutrinos through matter, and hence could be constrained by the next generation of neutrino oscillation experiments.

What would be the preferred length of your talk?

10 minutes + questions

Author: Mr BOLTON, Patrick (University College London)

Presenter: Mr BOLTON, Patrick (University College London)

Session Classification: Session VIII