



# Physical Research Laboratory, Ahmedabad

## Colloquium 16-04

- Speaker:** Prof. Frank Deppisch  
Department of Physics & Astronomy University College London  
Gower Street, London WC1E 6BT, UK
- Title:** “Neutrinos and New Physics”
- Time:** Wednesday, 24 February 2016, 16.00 hrs.
- Venue:** K. R. Ramanathan Auditorium, PRL

### Abstract

Neutrinos are an all present yet elusive part of the Universe. They play an important role in many phenomena, from radioactive decays and the energy production in stars to the general structure of galaxies. Yet neutrinos are still the least understood part of what constitutes known matter in the Universe. As such they currently provide the only solid departure from what is considered the Standard Model of particle physics and an explanation of their properties forms a crucial part of new theories that aim to understand the fundamental structure of nature. This makes neutrino physics a fascinating and highly important research field. In my talk I will try to give an account of how neutrinos may be used as a 'missing link' to new physics. I will address neutrino oscillations, the nature of masses in physics as well as the role neutrinos might play in explaining the origin of matter in the Universe.

### The Speaker

Prof. Frank Deppisch received M.Sc and Ph.D. from University of Wuerzburg, Germany, He was Post Doctoral Fellows at DESY, Hamburg, Germany and the University of Manchester, UK. He is working at University College London, UK. His general research interests are in the field of theoretical particle physics, namely: Neutrino physics, Supersymmetry, Lepton Flavour Violation and Beyond-the-Standard Model physics in general. He has written several seminar papers with very high citation. He is visiting PRL till March 5, 2016.

Tea at 15:30 hrs.

**ALL ARE WELCOME**

