Contribution ID: **15** Type: **not specified**

Laboratory tests of leptogenesis and fine tuning

Wednesday 25 September 2013 17:10 (20 minutes)

I discuss leptogenesis in the type I seesaw model with Majorana masses below the electroweak scale and the perspectives to test this scenario in the laboratory. It is often stated that it can only be realised if either two Majorana masses are highly degenerate or new degrees of freedom in addition to the right handed neutrinos are added to the Standard Model. This is, however, only true in models with two right handed neutrinos. We show that three or more right handed neutrinos with non-degenerate masses in the GeV range can generate the observed baryon asymmetry of the universe without any other new particles. This is possible due to the interplay of flavour and thermal effects.

Primary author: Dr DREWES, Marco (TU München)

Presenter: Dr DREWES, Marco (TU München)

Session Classification: Parallel Session 1 + 2: Particle Phenomenology and Cosmology & Astroparticle Physics

Track Classification: Cosmology & Astroparticle Physics