Planck 2013
 <h2>From the Planck Scale to the Electroweak Scale</h2>

Contribution ID: 61

Type: not specified

A predictive scheme for triplet leptogenesis

Tuesday 21 May 2013 16:20 (15 minutes)

I present a model of baryogenesis through leptogenesis, inspired from arXiv:0804.0801, in which a lepton asymmetry is generated by the CP-violating decay of an electroweak scalar triplet. This triplet also gives rise to neutrino Majorana masses through the type II seesaw mechanism. Therefore, there is a very direct link between the CP asymmetry and neutrino parameters, which are already known or could be measured by future experiments. I study the impact of flavor effects and compute the final baryon asymmetry predicted by the model. In particular, the final baryon asymmetry strongly depends on the mixing angle theta_13. The value measured by the Daya Bay experiment is in the right ballpark to account for the observed baryon-to-photon ratio.

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Session Classification: Parallel Session on Cosmology