DISCRETE 2018



Contribution ID: 127

Type: Non-Invited Talk

Grand Unified Theories of Flavour and Leptogenesis

Tuesday 27 November 2018 16:00 (25 minutes)

We propose a Grand Unified Theory of Flavour, based on SO(10) together with a non-Abelian discrete group S4, under which the unified three quark and lepton 16-plets are unified into a singlet triplet 3'. The Yukawa matrices are derived from the CSD2 flavon vacuum alignment and neutrino masses emerge from the type-I seesaaw mechanism. A full numerical fit is performed with 15 input parameters generating 19 presently constrained observables. We also discuss N2 leptogenesis, which fixes the second right-handed neutrino mass to be M2[°]2*10[°]11 GeV, in the natural range predicted by the model.

Content of the contribution

Theory

Authors: Ms PERDOMO MENDEZ, Elena (University of Southampton); Prof. KING, Stephen F. (University of Southampton); Dr DE ANDA, Francisco J. (Tepatitlan's Institute for Theoretical Studies)

Presenter: Ms PERDOMO MENDEZ, Elena (University of Southampton)

Session Classification: Discrete symmetries and models of flavour mixing

Track Classification: [5] Discrete symmetries and models of flavour mixing