

Portoroz 2013: Probing the Standard Model and New Physics at Low and High Energies

Contribution ID: 51

Type: **not specified**

Can minimal SUSY SU(5) scenario be made realistic?

Wednesday 17 April 2013 17:26 (15 minutes)

Can minimal renormalizable supersymmetric SU(5) GUT model be reconciled (up to neutrino masses) with all the phenomenological constraints like the proton decay bounds, the correct mass relations among light fermions, the recently measured Higgs mass and the LHC bounds on the sparticle spectrum, while remaining perturbative? All these experimental results confine the structure of the allowed superpartner spectrum. What we are proposing is a sort of a split SUSY scenario, where the down-sector quark masses are corrected through the supersymmetric threshold corrections (A-terms).

Preliminary results show that such model with the SU(5) invariant soft terms is still alive and quite predictive for the superpartner spectrum.

Author: Mr MEDE, Timon (J. Stefan Institute, Ljubljana)

Co-authors: , Borut Bajc (J. Stefan Institute, Ljubljana); LAVIGNAC, Stephane (CEA/IRFU,Centre d'etude de Saclay Gif-sur-Yvette (FR))

Presenter: Mr MEDE, Timon (J. Stefan Institute, Ljubljana)

Session Classification: Beyond the Standard Model III