Gauge and Yukawa Unification in Susy With Bilinearly Broken R-Parity

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Abstract

In a supersymmetric model where R-Parity and lepton number are violated bilinearly in the superpotential, which can explain the solar and atmospheric neutrino problems, we study the unification of gauge and Yukawa couplings at the GUT scale. We show that bottom-tau Yukawa coupling unification can be achieved at any value of tan β , and that the strong coupling constant prediction from unification of gauge couplings is closer to the experimental value compared with the MSSM. We also study the predictions for V_{cb} in a Yukawa texture ansätze.