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SUSY GUTs with Yukawa Unification in the light of data

Saturday, July 18, 2009 9:45 AM (15 minutes)

After a short overview of the hypothesis of Yukawa Unification within SUSY GUTs, I report on its viability in the light of the predictions for quark masses, EW precision data and FCNC processes.
In particular, I discuss the phenomenological difficulties existing when universalities for the soft SUSY-breaking terms at the GUT scale are assumed, and how these difficulties can be overcome in simple and robustly motivated scenarios of non-universalities. Finally, I discuss the falsifiability of the latter scenarios at forthcoming experiments, primarily the LHC.

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