

PAUL SCHERRER INSTITUT



Particle Theory Seminar

D. Noth

PSI

“Supersymmetric Precision Calculations of Bottom Yukawa Couplings”

Monday, November 10, 2008, 12:00

WBGB/021

Abstract:

The two-loop SUSY-QCD corrections to the effective bottom Yukawa couplings within the minimal supersymmetric extension of the Standard Model are presented. These effective Yukawa couplings include the resummation of the non-decoupling corrections Δm_b for large values of $\tan(\beta)$. We have derived the two-loop SUSY-QCD corrections to the leading SUSY-QCD and top-induced SUSY-electroweak contributions to Δm_b . The scale dependence of the resummed Yukawa couplings is reduced from $\mathcal{O}(10\%)$ to the per-cent level.