

Prediction for the Cosmological Constant and Constraints on SUSY GUTS: Status Report for Resummed Quantum Gravity

Saturday, July 7, 2018 3:00 PM (30 minutes)

Working in the context of the Planck scale cosmology formulation of Bonanno and Reuter, we use our resummed quantum gravity approach to Einstein's general theory of relativity to estimate the value of the cosmological constant as $\rho_\Lambda = (0.0024eV)^4$. We show that susy GUT models are constrained by the closeness of this estimate to experiment. We also present various consistency checks on the calculation and use the Heisenberg uncertainty principle to remove a large part of the remaining uncertainty in our estimate of ρ_Λ

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