

Particle Cosmology after Planck



DESY THEORY WORKSHOP
23 - 26 September 2014

**Particle Cosmology
after Planck**

DESY Hamburg, Germany



Contribution ID: 93

Type: **not specified**

Dilaton domination in the MSSM and its singlet extensions

Wednesday, 24 September 2014 16:25 (15 minutes)

We study the phenomenological implications of a string-motivated scenario in which supersymmetry breaking is triggered by the Dilaton field. We show that for the MSSM there is a tension between the expected Higgs mass and the dark matter relic abundance. This constrains the parameter space and thus leads to testable predictions for LHC-14. We also present examples within the general singlet extension of the MSSM where the aforementioned tension is relaxed and all constraints can be easily accommodated.

Primary authors: Dr LOUIS, Jan (Hamburg University); Dr SCHMIDT-HOBERG, Kai Ronald (CERN); Mrs ZÁRATE, Lucila (Hamburg University)

Presenter: Mrs ZÁRATE, Lucila (Hamburg University)

Session Classification: Strings & Mathematical Physics