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Seminaire de physique mathematique du CPHT, Ecole Polytechnique

Jeudi 27 Novembre 2014, 14 :30
CPHT, Salle de conf Aile 0
Domaines : hep-th

Titre : *Moduli Stabilization and Inflation with Fayet-Iliopoulos Terms*

Orateur : **Clemens Wieck**

Résumé : *We study the interplay of inflation and moduli stabilization in supergravity. For single-field inflation to be realized, all other dynamical fields in a given theory, such as remnants from a UV embedding, must be heavier than the Hubble scale. We derive generic corrections to supergravity F-term inflation in the presence of supersymmetrically stabilized Kähler moduli. By systematically integrating out the moduli fields we show that all corrections decouple in the limit of heavy moduli. The results are illustrated in the example of chaotic inflation. Similarly, we study the UV-embedding of D-term inflation by means of a "field-dependent FI term" as proposed by Dine, Seiberg, and Witten. We find that in this case, the modulus sector never truly decouples from inflation, except in a parameter regime where D-term inflation resembles chaotic inflation.*