Contribution ID: **130** Type: **not specified**

Racetrack inflation and F-term uplifting

Tuesday 24 August 2010 15:25 (15 minutes)

It is shown that two classes of racetrack inflation models, saddle point and inflection point ones, can be constructed in a fully supersymmetric framework with the matter field F-term as a source of supersymmetry breaking and uplifting. Two models of F-term supersymmetry breaking are considered: the Polonyi model and the quantum corrected O'Raifeartaigh model. In the former case, both classes of racetrack inflation models differ significantly from the corresponding models with non-supersymmetric uplifting. The main difference is a quite strong dominance of the inflaton by the matter field. In addition, fine-tuning of the parameters is relaxed as compared to the original racetrack models. In the case of the racetrack inflation models coupled to the O'Raifeartaigh model, the matter field is approximately decoupled from the inflationary dynamics.

Primary author: BADZIAK, Marcin (University of Warsaw)

Co-author: OLECHOWSKI, Marek (University of Warsaw)

Presenter: BADZIAK, Marcin (University of Warsaw)

Session Classification: Formal/Astro 24-1 Chair: N. Sakai

Track Classification: Astro