Contribution ID: **111** Type: **not specified**

Superconformal D-Term Inflation

Thursday, 27 September 2012 16:30 (20 minutes)

In superconformal D-term inflation, dangerous supergravity corrections to the scalar potential are controlled by a superconformal symmetry of the matter sector of the Lagrangian, a concept which has received recent interest in the context of Higgs inflation. Working out this idea in the context of D-term inflation, we find an interesting phenomology, in particular a two-field inflationary phase once one allows for a breaking of the exact superconformal symmetry and predictions for the observables of the primordial power spectrum within current experimental bounds for reasonable values of the model parameters. Furthermore, we show that this simple model can be embedded in the context of Grand Unified Theories, with the U(1) symmetry broken at the end of D-term inflation identified as the U(1)_{B-L}.

Primary authors: SCHMITZ, Kai (DESY); DOMCKE, Valerie (DESY); BUCHMUELLER, Wilfried (DESY)

Presenter: DOMCKE, Valerie (DESY)

Session Classification: Parallel Session 2: Cosmology & Astroparticle Physics

Track Classification: Cosmology & Astroparticle Physics