Planck 2018 <br /> <h2>From the Planck Scale to the Electroweak Scale</h2>

Contribution ID: 93

Type: not specified

## **Backreaction in the dynamical relaxation**

Wednesday 23 May 2018 16:50 (20 minutes)

Dynamical relaxation in an interesting framework in which the scale of new physics is pushed far beyond the observable range without abandoning the principles of naturalness. A low value of the electroweak scale originates from a dynamical selection process that comes from an interaction between the Higgs boson and an axion-like particle (a relaxion). During the relaxation, the relaxion rolls down a potential hill scanning a range of Higgs masses in the process. Usually, it is assumed that this roll-down has no effects beyond a varying mass of the Higgs. In this talk, I will discuss a possibility of non-negligible side-effects of the relaxation and how their inclusion may spoil the mechanism, especially if additional dimensions are involved.

Presenter: MARKIEWICZ, Adam (University of Warsaw)

Session Classification: Parallel Session on Relaxion/Light bosons