

Antiproton Limits on Decaying Gravitino Dark Matter

Wednesday, 11 September 2013 16:20 (20 minutes)

The nature of dark matter is one of the greatest mysteries of modern cosmology and particle physics. In this talk I will introduce a theory with broken R-parity where the gravitino forms a well-motivated candidate for unstable dark matter. After a brief review of the cosmological motivation for the scenario I will discuss its phenomenology with respect to indirect dark matter searches using observations of cosmic rays. In particular, I will elaborate on lower limits on the gravitino lifetime derived from antiproton data and the impact on the parameter space of the model.

Primary author: GREFE, Michael (Universidad Autonoma de Madrid)

Presenter: GREFE, Michael (Universidad Autonoma de Madrid)

Session Classification: Dark Matter VI

Track Classification: Dark Matter