

ICHEP2012



Contribution ID: 420

Type: **Parallel Sessions**

Pangogenesis: visible and dark matter from a common origin

Saturday 7 July 2012 09:00 (15 minutes)

The similarity of the visible and the dark matter relic abundances suggests related production mechanisms. This is possible if the dark matter density is -analogously to the visible matter- due to an asymmetry in a dark particle number which is conserved at low energies. In pangogenesis, the visible and dark asymmetries are produced jointly via Affleck-Dine dynamics, and they compensate each other under an always conserved generalised baryon number. Supersymmetry, GeV-scale dark-matter mass (favoured by current direct detection experiments) and a Z' boson with a significant invisible width into the dark sector would constitute evidence for this mechanism.

Author: Dr PETRAKI, Kalliopi (University of Melbourne (AU))

Presenter: Dr PETRAKI, Kalliopi (University of Melbourne (AU))

Session Classification: Room 216 - Particle Astrophysics and Cosmology -TR11

Track Classification: Track 11. Particle Astrophysics and Cosmology