

Antideuteron 2014

$\bar{d}14$ 1st cosmic ray
antideuteron workshop

Thursday, June 5, 2014 - Friday, June 6, 2014

UCLA Faculty Center

Scientific Program

In recent years the interest in cosmic ray antideuteron measurements has increased due to detection potential of signals from a variety of dark matter, primordial black hole, or gravitino models. At regular conferences on cosmic rays or dark matter identification only few people are actually working on antideuterons or related physics. Therefore, this dedicated cosmic ray antideuteron workshop tries to bring a critical mass of people together in the same room for productive and focused discussions.

Tentative program:**Sources of primary cosmic ray antimatter**

antideuterons from dark matter

antiprotons from dark matter

antiprotons and antideuterons from PBH, gravitino

prospects for the detection of antihelium

Antiproton and antideuteron propagation

heliospheric effects

geomagnetic effects

atmospheric effects

Cosmic ray experiments:

BESS

PAMELA

AMS

GAPS

Collider experiments:

cross section measurements

ALICE

NA61

RHIC(?)

PANDA(?)

Path into the future:

how to reduce background uncertainties

interplay of direct, indirect, and collider experiments with antimatter input