d14 1st cosmic ray antideuteron workshop

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(Anti)Nuclei production at the LHC with ALICE

Friday, June 6, 2014 11:30 AM (30 minutes)

The unprecedented high collision energies at the Large Hadron Collider give rise to a significant production of
light nuclei and anti-nuclei in proton-proton, proton-lead, and particularly in Pb-Pb collisions.
With its excellent particle identification capabilities based on the specific energy loss (dE/dx)
in the Time Projection Chamber and time-of-flight measurements, ALICE
is very well suited for the detection of these rare stable particles.
Transverse-momentum spectra and production yields of light composite objects such as
(anti-)nuclei with particular emphasis on (anti-)deuteron will be presented. Furthermore, to understand their production
mechanism, the results will be compared to the predictions from thermal and coalescence models.

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