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(Anti)Nuclei production at the LHC with ALICE

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The high energy pp, p-Pb, and Pb-Pb collisions at the LHC offer a unique tool to study the production of light (anti-)nuclei.

Thanks to its excellent particle identification and tracking capabilities, the ALICE detector allows for the measurement of deuterons, tritons, $^3\mathrm{He},\,^4\mathrm{He}$ and their corresponding anti-nuclei in a wide momentum range. Results on the production yields of light nuclei and anti-nuclei in pp, p-Pb, and Pb-Pb collisions at energies going from 5 TeV to 13 TeV will be presented.

The experimental results will be compared with the predictions of the statistical (thermal) model and the baryon coalescence approach to provide insight in the production mechanisms of light (anti)-nuclei in ultra-relativistic collisions.

Primary author: LEA, Ramona (University and INFN (Trieste))

Presenter: LEA, Ramona (University and INFN (Trieste))