

# Light (Hyper-)Nuclei production at the LHC with ALICE

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Thanks to its excellent particle identification and momentum measurement capabilities, the ALICE detector allows for the identification of deuterons, tritons,  $^3\text{He}$  and  $^4\text{He}$  and their corresponding antinuclei. This is achieved via their specific energy loss in the Time Projection Chamber and the velocity measurement by the Time-Of-Flight detector. Moreover, thanks to the Inner Tracking System capability to separate primary from secondary vertices, it is possible to identify (anti-)hypertritons exploiting their mesonic decay ( $^3\text{H} \rightarrow ^3\text{He} + \pi^-$ ). Results on the production yields of light nuclei and anti-nuclei in Pb-Pb, pp and p-Pb will be presented, together with the measurement of hypertriton production rates in Pb-Pb. The measurement of the hypertriton lifetime will also be shown. The experimental results will be compared with the predictions of both thermal (statistical) and coalescence models.

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