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(Anti)(hyper)nuclei production in small collision systems measured with ALICE at the LHC

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The production mechanism of (anti)nuclei in ultrarelativistic hadronic collisions is under intense debate in the scientific community. The description of the experimental measurements is currently based on two competing phenomenological models: the statistical hadronisation model and the coalescence approach. Light (anti)(hyper)nuclei have been extensively measured in small collision systems with ALICE at the LHC. In this contribution, the (anti)deuteron production in pp collisions at several centre-of-mass energies is presented. For the first time, the deuteron production is measured both in jets and in the underlying event and discussed in the context of phenomenological models. New insights on the nucleosynthesis process can be obtained from (anti)hypertriton measurements in small collision systems. Recent ALICE results on the hypertriton production in pp and p–Pb collisions are also discussed in this contribution.

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