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Production of hypernuclei in Pb-Pb collisions at √sNN = 2.76 TeV with ALICE at the LHC

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In high-energy heavy-ion collisions hyperon-baryon bound systems, called hypernuclei, can emerge from the hot and dense fireball region of the reaction.
Their production yield can be estimated employing two distinct models: they can be formed via the coalescence of nucleons and hyperons produced in the collision or they can be produced directly in the hadronisation process. The study of the production yield of hypernuclei at the LHC energy can help to distinguish between the two models.
Results on (anti-) hypertriton production in Pb–Pb collisions at √sNN = 2.76 TeV, obtained by ALICE at the LHC, are reported.
The (anti-) 3LH signal is extracted exploiting its mesonic decay (3
LH ⟶ 3He + π) , via the topological identification of secondary vertices and the study of the invariant mass distributions of (3He, π) pairs.
The (anti-) 3LH production yield will be presented and compared to stable nuclei and theoretical models. An assessment of (anti-) 3
LH lifetime will also be discussed.

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