

# Status and perspectives of Hypernuclear Physics in ultra-relativistic heavy ion collisions

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In the last decade, heavy-ion collision experiments have brought new insight to the study of (anti-)hypernuclei. Experiments using heavy ion collisions for hypernuclear research focus on two distinct aspects: the production mechanism and the lifetime estimation, in particular for the hypertriton. The ALICE experimental observations which allow to test models of the production mechanism responsible for the formation of the (anti-)hypertriton in heavy ion-collision the LHC energy regime will be presented. Those results will be compared with the results obtained at lower energy by the STAR experiment and with the two theoretical approaches we have at disposal: the statistical thermal model and the coalescence approach.

The discussion of the current experimental knowledge of hypertriton lifetime will be presented including the latest ALICE results from the study of its two-body mesonic decay at the unprecedented energy of 5.02 TeV. A look to the future experimental effort needed and planned in this physics sector will be discussed.

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