

Jet-associated deuteron production in pp collisions at 13 TeV with ALICE at the LHC

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The production of deuterons in high-energy collisions is particularly sensitive to the space and time evolution of the system, as well as the baryon production and transport mechanisms. Recent ALICE measurements of spectra and anisotropic flow of (anti-)deuterons provide insight into the production mechanisms of particles in heavy-ion collisions thanks to a critical comparison with the available theoretical approaches: coalescence and hydrodynamic models. We present new preliminary results on deuteron-jet correlations from pp collisions at 13 TeV to complement these findings. The measured jet-associated yields of (anti-)deuterons will be also compared to theoretical predictions in the context of a baryon coalescence model.

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