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Baryonic resonances at the LHC energies with the ALICE experiment

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The study of resonances production in p-p collisions provides constraints on QCD-inspired particle production models.

In Pb-Pb collisions, resonances are good probes to estimate the collective properties of the fireball and may add constraints to the estimate of its lifetime.

p_T spectra have been measured for the baryonic resonances

Λ , Σ^* and

Σ^* and

Ξ^* using data collected by the ALICE experiment in p-p collisions at $\sqrt{s} = 7$ TeV.

The spectra will be compared to QCD-inspired models such as PYTHIA and PHOJET, which in general underpredict the experimental results on the yields of strange resonances. The ratios of yields of baryonic resonances to stable particles, namely

Σ^*/Λ ,

Λ/Λ and

Ξ^*/Ξ will be compared with both thermal models and corresponding values from previous experiments at different colliding energies.

These results will serve as baseline for the forthcoming heavy-ion results. The status and prospects of the measurements of baryonic resonances in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV will be discussed.

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