

## Exploring the residual strong interaction among the hadrons at the LHC

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The femtoscopy method has been recently used in high-energy collisions at the LHC to study the residual strong interaction for several hadron pairs.

In pp and p-Pb collisions, particles are emitted at relative distances of the order of 1 fm. At such distances, the produced hadrons are sensitive to the effect of their mutual strong interaction, resulting in a correlation signal in the measured particle momentum distributions. Correlation functions have been employed to test for the first time lattice QCD calculations and also to challenge the effective field theory results with unprecedented precision. In the last years, the method has been extended to study three-body systems. In this contribution, the correlation functions of p-d pairs and p-p-p triplets, measured by the ALICE Collaboration, will be shown. The measurements have been interpreted with the help of full fledged three-body calculations, demonstrating that three-baryon systems can be precisely studied at the LHC and that correlations of hadrons with light nuclei can be exploited as innovative methods to investigate many-body nuclear forces.

### Parallel Session

Few-Body Systems

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