

A study of K^-d and K^+d interactions via femtoscopy technique

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Scattering cross section measurements have been used to study the strong interaction between charged kaons and deuterons. However, these studies have not been successful in determining the scattering lengths of the strong interaction between K^+d and K^-d . Moreover, the currently available theoretical predictions for this K^-d scattering parameter are largely based on input from kaonic hydrogen measurements, while no theoretical predictions have yet been published for K^+d .

In this talk, the first measurements of the scattering lengths of K^+d and K^-d particle pairs are presented. The results were obtained using the femtoscopy, which is a very accurate technique for studying interactions between two particles with low relative momenta.

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