



Contribution ID: 127

Type: **Oral Contribution**

From correlations to universal behavior in few-nucleon systems

Friday 28 October 2022 11:10 (35 minutes)

Very detailed nucleon-nucleon (NN) and three-nucleon (3N) interactions have been constructed and applied to describe bound and scattering states in few-nucleon systems. They are based on chiral perturbation theory. At the same time the shallow character of the deuteron ($S=1$) state and the virtual $1S_0$ states allows for an effective description in which the pion degrees of freedom have been integrated out. This is known as pionless effective field theory. Different types of correlations appear; examples will be shown in the three- and four-nucleon systems and in the evolution of the nuclear levels from the unitary point, a point where the scattering lengths are infinity, to the physical point in which they take the observed value.

Author: KIEVSKY, Alejandro (INFN)

Presenter: KIEVSKY, Alejandro (INFN)

Session Classification: Plenary Talks

Track Classification: Plenary Talks