

PRISMA+ Colloquium

Nov. 13, 2019 at 1 p.m. Lorentz-Raum 05-127, Staudingerweg 7

Alejandro Kievsky INFN Pisa

From Correlations to Universality

The short-range interaction between particles many times shows a strong repulsion that strongly correlated the many-body system. In the particular case of a two-body shallow state, very extended compared to the range of the interaction, the three-body system has universal behavior.

There is an infinite number of states geometrically accumulated at E=0.

This is the Efimov effect predicted by V. Efimov in 1970 and experimentally verified more than 25 years later. I will discuss how universal behavior emerges in strongly correlated systems as liquid drops or light nuclear systems and how this behavior propagates as the number of particle increases.

