# Experimental study of the strong interaction with the spectrometer CLAS and ALERT at JLab

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**Abstract**

The ALERT experiment aims to advance our understanding of nuclear structure by precisely measuring Deeply Virtual Compton Scattering (DVCS) and Tagged EMC effects on $^4$He and $^2$H. These measurements are crucial for extracting nuclear Generalized Parton Distributions (GPDs) and challenging current interpretations of the EMC effect. Achieving these goals relies on the synergistic combination of the novel, low-energy ALERT recoil tagger with the CLAS12 spectrometer at Jefferson Lab (JLab). ALERT is composed of a hyperbolic drift chamber (AHDC) for track reconstruction and a time-of-flight system for particle identification. It is specifically designed to detect $^4$He during GPD extraction and recoil particles (p, $^3$H, $^3$He) in tagged processes. CLAS12's large acceptance is ideal for detecting scattered electrons and production photons, enabling comprehensive data collection for these critical investigations. I will present in my poster the performances of the ALERT detector and some first results of our ongoing run.