Abstract Submitted for the DNP20 Meeting of The American Physical Society

**Chasing QCD Signatures in Nuclei**<sup>1</sup> LAMIAA EL FASSI, Mississippi State Univ., THE CLAS COLLABORATION — Over the last few decades several experiments have used atomic nuclei as unique laboratories to probe the internal structure of the strongly interacting particles, namely hadrons. Indeed, the nucleus could be used as a revealing medium of the time evolution of elementary configurations of the hadron wave function. One of the ordinary approaches used to probe this picture involves searching for the onset of various phenomena, which are naturally predicted by Quantum Chromodynamics (QCD), the theory of strong interactions. One such phenomena is the Color Transparency (CT). It refers to the production and propagation of a small size hadron-like configuration which, under specific conditions, stays intact in a transparent nuclear medium. In this talk, I will briefly review the status of the experimental search for CT effects and highlight the upcoming Jefferson Lab experiment that will study CT at higher momentum transfer using the CLAS12 spectrometer.

<sup>1</sup>This work is supported by the US DOE contract DE-FG02-07ER41528

Lamiaa El Fassi Mississippi State Univ.

Date submitted: 26 Jun 2020

Electronic form version 1.4