

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

The BONuS Experiment with CLAS12¹ MOHAMMAD HATTAWY, SEBASTIAN KUHN, Old Dominion University, CLAS COLLABORATION — The BONuS experiment studies nearly free neutrons through electron scattering observables like structure functions, Deeply Virtual Compton Scattering (DVCS), and other reactions. By observing a slow, backwards-moving spectator proton in the reaction $D(e, e'p_s)X$ in coincidence with the scattered electron and other reaction products, nuclear uncertainties are minimized. BONuS collected data in winter and summer 2020 in Hall B of Jefferson Lab with an electron beam of 10.4 GeV, using the CLAS12 spectrometer and a custom-built, state-of-the-art Radial Time Projection Chamber (RTPC). In this talk, we will discuss the performance of the RTPC, and present the status of the data analysis.

¹Supported by DOE grant DE-FG02-96ER40960

Sebastian Kuhn
Old Dominion University

Date submitted: 07 Jan 2021

Electronic form version 1.4