

Abstract Submitted
for the DNP15 Meeting of
The American Physical Society

Measurements of proton-proton correlations with the upgraded FAUST array (FAUSTUPS) LAUREN HEILBORN, SHERRY YENNELLO, Texas A&M Univ — The nuclear Equation of State (EoS) is important to a more fundamental understanding of nuclear matter, particularly as manifest in asymmetric systems, such as neutron stars. Proton-proton (pp) correlation functions have been predicted to be sensitive to the density-dependence of the Symmetry Energy in the EoS. In order to extract this relationship, the Forward Array Using Silicon Technology with Upgraded Position Sensitivity (FAUSTUPS) has recently been commissioned with position-sensitive silicons as the Delta-E detectors. In order to extract the position with a sensitivity of 200 μm within a detector, a new method of position calibration for the array has been developed. Data has been collected from the reactions of $^{40}\text{Ar}+^{70}\text{Zn},^{58}\text{Fe}$ and $^{40}\text{Ca}+^{58}\text{Ni}$ at 40 MeV/nucleon. The three systems were chosen to include two that are the same total A, and two that are similar in total isospin content. Light charged particles have been measured, and preliminary results from this campaign will be shown.

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Date submitted: 01 Jul 2015

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