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LCP correlations with improved resolution LAUREN HEILBORN, ALAN MCINTOSH, ANDREA JEDELE, MIKE YOUNGS, ANDREW ZARRELLA, SHERRY YENNELLO, Texas AM Univ — Nuclear Equation of State (EoS) is important to a fundamental understanding of nuclear matter. The density dependence of the asymmetry energy, the least constrained term in the EoS, is critical to describing exotic systems such as neutron-rich heavy-ion collisions and neutron stars. Correlation functions of particles emitted in heavy ion reactions (such a p-p correlations) have been predicted to be sensitive to the asymmetry energy. In order to measure correlation functions with high resolution, the Forward Array Using Silicon Technology (FAUST) at the Cyclotron Institute at Texas A&M University has been recently re-commissioned with position-sensitive silicons as the delta-E detectors. A new method of position calibration for FAUST has been developed to take advantage of the 200um position resolution within each detector. Data has been collected from reactions of 40Ar+70Zn, 40Ar+58Fe and 40Ca+58Ni at 40 MeV/nucleon. The three systems allow correlation functions to be compared for systems with varying (N-Z)/A while holding constant either the total charge or the total mass. Light charged particles have been measured, and preliminary investigation of correlations from this campaign will be shown. Transport simulations will also be compared and presented.

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