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Know Your Target: Toward A Better Understanding of the 3He System ELENA LONG, Kent State University, HALL A COLLABORATION — The Hall A E05-102 collaboration of Jefferson Lab is seeking to better understand the polarized 3He system. Polarized 3He is often used as an effective neutron target for purposes such as measuring the neutron asymmetry A1n. These measurements have reached a level where the errors from the understanding of the 3He system are comparable in some cases to the statistical errors. In order to improve our understanding, double-polarized asymmetries in the quasi-elastic 3He(e,e'd) reaction will be measured. Faddeev calculations of the Bochum/Krakow and Hannover groups result in distinct descriptions of the Ax and Az asymmetries. These descriptions will be compared to asymmetries measured as a function of missing momentum and will allow for a better understanding of the 3He system. This development has important implications for all experiments using polarized 3He as an effective neutron target. Details of the experiment will be discussed.

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