Abstract Submitted
for the DNP13 Meeting of
The American Physical Society

Two-neutron decay of excited states of ^{11}Li JENNA SMITH, MSU/NSCL, MONA COLLABORATION — One prominent example of a Borromean nucleus is the two-neutron halo nucleus, ^{11}Li. All excited states of this nucleus are unbound to two-neutron decay. Many theories propose that the two valence neutrons exhibit dineutron behavior in the ground state, but it is unclear what effect such a structure would have on the decay of the excited states. We have recently completed an experiment designed to study the decay of one of these excited states. Unbound ^{11}Li was populated via a two-proton knockout from ^{13}B. The two emitted neutrons were detected with the Modular Neutron Array (MoNA) and the Large-area multi-Institutional Scintillator Array (LISA) in coincidence with the daughter fragment, ^{9}Li. Preliminary results will be discussed.

Jenna Smith
MSU/NSCL

Date submitted: 01 Jul 2013 Electronic form version 1.4