

Abstract Submitted
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Calibration of Charged-Particle Detectors for the LISA Commissioning Experiment¹ S. GARRETT, N. TAYLOR, A. BARKER, W.F. ROGERS, Westmont College, MONA COLLABORATION — The Modular Neutron Array (MoNA) and the Large area multi-Institutional Scintillator Array (LISA), housed at the National Superconducting Cyclotron Laboratory at Michigan State University, were constructed by students at primarily undergraduate institutions. Each array consists of 144 2-m long scintillator detectors with PMTs attached to each end and are used for the detection of neutrons resulting from the breakup of exotic neutron-unbound nuclear states. The commissioning run for LISA was conducted during summer 2011 (in conjunction with MoNA and the Sweeper Magnet) to investigate unbound excited states of the neutron-rich nucleus ^{24}O that breakup via sequential 2-neutron decay. In order to do this the energies and trajectories of both the charged fragments and neutrons need to be determined precisely, which require careful energy, position, and time calibration of the Sweeper Chamber charged particle detectors. Then careful separation of the individual Oxygen isotopes is necessary so that gates can be produced to be used in the calculation of individual decay energies. Results to be presented.

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