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Calibration of the Sweeper Chamber Charged-Particle Detectors for the LISA Commissioning Experiment¹ J. KWIATKOWSKI, A. GROVOM, W. ROGERS, Westmont College, MONA COLLABORATION — The new LISA (Large-area multi-Institutional Scintillator Array) neutron detector array, designed to be used in conjunction with MoNA (Modular Neutron Array) was recently commissioned at the NSCL in an experiment designed to investigate excited states of neutron-rich Oxygen isotopes near the neutron drip-line. Charged fragments resulting from the neutron decays were swept out of the beam direction by the Sweeper Magnet after which they passed through a series of charged-particle detectors for fragment trajectory and energy determination. In order to achieve isotope separation and identification at the focal plane, which is then used to reconstruct the invariant mass of the unbound states, precise determinations of the fragment and neutron energies and trajectories are required. To correct for time-drifts in the charge-particle detectors that develop over the entire length of the experiment, Root C++ macros were developed to analyze and precisely correct for these detector drifts to within few tenths of a nanosecond. Root macros were also developed to position calibrate the ion chamber and CRDC's. Results for the LISA commissioning run will be presented.

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