

Abstract Submitted  
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**The new Digital Data Acquisition System for MoNA-LISA<sup>1</sup>**  
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COLLABORATION COLLABORATION — The Modular Neutron Array (MoNA)  
and the Large multi-Institutional Scintillator Array (LISA) at the National Su-  
perconducting Cyclotron Laboratory (NSCL) are used to detect neutrons emitted  
during the decay of exotic nuclei near the neutron dripline. The arrays consist of 288  
10cm x 10cm x 2m long plastic scintillation detectors coupled to photomultipliers  
at each end. The Time of Flight (TOF) of these neutrons determines the neutron  
energy, which is needed to find the decay energy of the exotic nuclei. A Digital Data  
Acquisition System (DDAS) based on the XIA PXI modules is being developed to  
read out and record the signals of the MoNA-LISA scintillation detectors. A 500  
Mega Samples per Second (MSPS) PXI module was used to test the time and energy  
resolution as it compares to the existing analog DAQ setup.

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