

Abstract Submitted
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The Neutron Detector for the Measurement of G_E^n at high Q^2 in Hall A JONATHAN MILLER, University of Maryland, HALL A COLLABORATION, E02-013 COLLABORATION — Data collection for an asymmetry measurement of the electric form-factor of the neutron, G_E^n , was completed during the spring of 2006 in Hall A at the Thomas Jefferson National Accelerator Facility. To detect the neutron from the quasi-elastic ${}^3\overline{He}(\vec{e}, e'n)$ reaction, a large neutron detector was constructed with an active frontal area of 11.25 m². The techniques of the construction and the operation of the 1432 channel and 83 ton detector will be discussed. The achieved timing resolution and neutron detection efficiency, both critical for identifying the quasi-elastic neutrons, will be shown.

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