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Exclusive π^- Electro-production from the Neutron in the Resonance Region[1] JIXIE ZHANG, Old Dominion University, CLAS COLLABORATION — The study of baryon resonances is crucial to our understanding of nucleon structure and dynamics. Although the excited states of the proton have been studied in great detail, there are very few data available for the neutron resonances because of the difficulty inherent in obtaining a free neutron target. To overcome this limitation, the spectator tagging technique was used in one of the CEBAF Large Acceptance Spectrometer(CLAS) collaboration experiments, *Barely off-shell Nuclear Structure (BoNuS)*, in Hall-B at Jefferson Lab. We have constructed a radial time projection chamber (RTPC) based on the gaseous electron multiplier (GEM) technology to detect recoil protons with momenta from 70 to 200 MeV/c. Electron scattering data were taken in 2005 with beam energies of 2.1, 4.2 and 5.3 GeV using a 7 atm gaseous deuterium target in conjunction with the RTPC and CLAS detectors. We have analyzed exclusive $D(e, e'\pi^- p)p$ events in which the proton was detected either in CLAS or in the RTPC. Preliminary cross sections will be presented for this reaction.

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