

Abstract Submitted
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Simulation of NIFFTE TPC REMINGTON THORNTON, Abilene Christian University, NEUTRON INDUCED FISSION FRAGMENT TRACKING EXPERIMENT COLLABORATION — The Global Nuclear Energy Partnership (GNEP) has funded the construction of a Time Projection Chamber (TPC) to be used for precision fission cross-section measurements through the Nuclear Energy Research Initiative (NERI). One important requirement of the TPC project is to have an accurate simulation of the physical volume and realistic data flow. GENAT4 is multi-purpose 3-D Monte Carlo simulation package that has been chosen for this effort. The sensitive volume of the TPC has been created in GENAT4 along with simulation of the detector response, which includes: 3-D ion diffusion, pedestal fluctuations, charge sharing and digital latching noise. In this poster, results from the initial simulation will be described in detail.

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