

Abstract Submitted
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Online Computing for a Time Projection Chamber Designed to Make High Precision Fission Cross-Section Measurements HAI QU, Abilene Christian University, NIFFTE COLLABORATION — The Neutron Induced Fission Fragment Tracking Experiment (NIFFTE) will employ a novel, high granularity, pressurized Time Projection Chamber to measure fission cross-sections of the major actinides to sub-1% precision over a wide incident neutron energy range. The NIFFTE online computing system consists of many components. The run control will be able to ensure the safe operation of the detector and assure the quality of the data in real time. The custom-designed packet receiver and event builder are responsible for collecting and packing complete events. All these components will be integrated into a single system that will allow collaborators to help run the experiment remotely. In this talk, the design, implementation and current status of the online computing system as well as the DAQ hardware will be presented.

Hai Qu
Abilene Christian University

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