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A Fission Time Projection Chamber for High Precision Cross Section Measurements LUCAS SNYDER, UWE GREIFE, Colorado School of Mines, NIFFTE COLLABORATION — The design of next generation nuclear reactors and other nuclear applications are increasingly dependent on advanced simulations. Sensitivity studies have shown a need for high precision nuclear data to improve the predictive capabilities of these simulations. The Neutron Induced Fission Fragment Tracking Experiment (NIFFTE) collaboration has constructed and is currently testing a prototype Time Projection Chamber (TPC) designed to measure fission cross sections to a higher accuracy than is capable with existing technology. In this talk, I will discuss the status of the fission TPC and progress on collecting the first set of data from ²⁵²Cf spontaneous fission.

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