

Abstract Submitted
for the DNP08 Meeting of
The American Physical Society

The Fission TPC Project TONY HILL, LANL, JENN KLAY, California Polytechnic State University, MIKE HEFFNER, LLNL, NIFFTE COLLABORATION — New high-precision fission experiments have become a priority within the nuclear energy community due to a growing, world wide, interest in nuclear reactors. In particular, the design of the next generation reactors requires a reduction in the errors on a number of cross section measurements. Most of the required nuclear data has been measured over the last 50 years, although improvements in the accuracy of the data appear unlikely with the current technology. A potential breakthrough is the deployment of a detector developed within the particle physics community called the Time Projection Chamber (TPC). A group of 6 universities and 3 national laboratories have undertaken the task of building the first TPC for this purpose. In this talk we will present the fission TPC concept, and why we think we can make an improvement on 50 years of fission study.

Mike Heffner
LLNL

Date submitted: 01 Jul 2008

Electronic form version 1.4