

Abstract Submitted  
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**The Fission Time Projection Chamber Project** TONY HILL, Idaho National Laboratory — New high-precision fission experiments have become a priority within the low-energy nuclear community. Modern sensitivity calculations have revealed unacceptable liabilities in some of the underlying fundamental nuclear data and have provided target accuracies for new measurements that are well beyond what can be delivered using current experimental technologies. A potential breakthrough in the precision barrier for these measurements is the deployment of a Time Projection Chamber (TPC). TPC detector systems were originally developed within the particle physics community and have played a central role in that field for nearly 25 years. A group of 6 universities and 3 national laboratories have undertaken the task of building the first TPC designed specifically for the purpose of measuring fission cross sections. In this talk, I will present the motivation for the fission TPC concept, a few details of the device and why we think an improvement on 50 years of fission experiments can be accomplished.

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