

Abstract Submitted  
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**Fusion Studies with an Active-Target Time Projection Chamber**

J.J. KOLATA, Univ. of Notre Dame, Notre Dame, IN 46556, A.M. HOWARD, University of Aarhus, Aarhus, Denmark, A. ROBERTS, Los Alamos National Lab., Los Alamos, NM, W. MITTIG, T. AHN, D. BAZIN, S. BECEIRO-NOVO, Z. CHAJECKI, A. FRITSCH, W.G. LYNCH, A. SHORE, Michigan State University, East Lansing, MI 48824, F.D. BECCHETTI, M. FEBBRARO, R.O. TORRES-ISEA, J. RIGGINS, University of Michigan, Ann Arbor, MI 48109 — Near- and sub-barrier fusion of a radioactive  $^{10}\text{Be}$  beam with  $^{40}\text{Ar}$  has been studied at the *TwinSol* facility of the University of Notre Dame, using the prototype active-target time projection chamber (pAT-TPC) developed at the National Superconducting Cyclotron Laboratory at Michigan State University. Preliminary results from this experiment will be presented and the lessons learned in the data analysis will be discussed. Application of the method to fusion in other systems involving low-rate radioactive beams will be discussed in the light of these lessons. This work was partially supported by the US NSF under Contract No. PHY09-69456 and MRI award No. PHY09-23087.

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