

Abstract Submitted  
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**Testing the theoretical predictions and affirming chiral behavior in the  $A \sim 130$  region: Chirality in  $^{133}\text{Ce}$** <sup>1</sup> A.D. AYANGEAKAA, U. GARG, S. FRAUENDORF, J.T. MATTA, B.K. NAYAK, University of Notre Dame, S.S. GHUGRE, UGC-DAE Consortium for Science Research, Kolkata, India, M.P. CARPENTER, C. CHIARA, C. HOFFMAN, R.V.F. JANSSENS, F. KONDEV, T. LAURITSEN, C. NAIR, D. SEWERYNIAK, A. TORBEN, I. STEFANESCU, S. ZHU, Physics Division, Argonne National Laboratory, Argonne, IL 60439 — Microscopic calculations based on the three dimensional Tilted Axis Cranking (TAC) model have predicted the existence of a chiral partner band to the  $\pi(h_{11/2}g_{7/2}) \otimes \nu(h_{11/2})$  band in  $^{133}\text{Ce}$ . To test this prediction, high spin states in  $^{133}\text{Ce}$  were populated with the  $^{116}\text{Cd}(^{22}\text{Ne}, 5n)^{133}\text{Ce}$  fusion evaporation reaction at a beam energy of 112MeV using GAMMASPHERE. A  $\Delta I = 1$  candidate chiral-band partner built on the  $\pi(h_{11/2}g_{7/2}) \otimes \nu(h_{11/2})$  configuration has been observed. Details of chiral assignment to this pair of bands will be presented.

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