DNP15-2015-020080

Abstract for an Invited Paper for the DNP15 Meeting of the American Physical Society

Limits on tensor currents from ⁸Li β decay NICHOLAS SCIELZO, Lawrence Livermore National Laboratory

Precision measurements of angular correlations from nuclear β decay provide information on possible exotic couplings in the weak interaction. In the β decay of ⁸Li, the delayed- α breakup of the ⁸Be* daughter provides enhanced sensitivity to possible tensor couplings. We report a limit on the ratio of the tensor to axial-vector coupling from the ⁸Li $\beta - \alpha - \nu$ correlation experiment performed using the β -decay Paul Trap (BPT) at Argonne National Laboratory. We will discuss our continued work on angular correlation measurements as well as new techniques being developed to overcome current experimental limitations.