

Abstract Submitted
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Searching for Tensor Currents in the Weak Interaction in the β -decay of ${}^8\text{B}$ ¹ A. T. GALLANT, N. D. SCIELZO, K. KOLOS, B. ALAN, Lawrence Livermore National Laboratory, M. T. BURKEY, L. VARRIANO, University of Chicago, G. SAVARD, J. A. CLARK, D. GORELOV, P. MUELLER, Argonne National Laboratory, M. BRODEUR, D. BURRDETTE, K. SEIGL, University of Notre Dame, T. HIRSH, Soreq NRC, K. LEACH, Colorado School of Mines, B. MAASS, W. NOERTERSHAEUSER, Johannes Gutenberg University, S. T. MARLEY, Louisiana State University, F. BUCHINGER, R. ORFORD, McGill University, D. RAY, University of Manitoba, R. E. SEGEL, Northwestern University — The weak interaction of the Standard Model is well-described by a vector-axial vector, or ‘V-A’, structure, which reproduces both maximal parity violation and left-handed neutrinos in beta-decay. To search for possible tensor contributions to the weak interaction we measure the beta-neutrino correlation coefficient $a_{\beta\nu}$ in the Gamow-Teller beta-decays of ${}^8\text{Li}$ and ${}^8\text{B}$. The $A = 8$ decays are ideal to probe $a_{\beta\nu}$ due to the large Q-value and delayed alpha emission from the excited state ${}^8\text{Be}$. These measurements are performed with the Beta decay Paul Trap (BPT) at Argonne National Lab. The BPT is surrounded on 4 sides with double-sided silicon strip detectors which allow the kinematics of decay products to be constrained. In this presentation we will present the first results from the decay of ${}^8\text{B}$.

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