

Abstract Submitted
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Initial Asymmetry Results from the UCNA Experiment

ROBERT PATTIE JR, N.C. State University, UCNA COLLABORATION — In the decay of free polarized neutrons, there is an asymmetry in the emission direction of electrons with respect to neutron spin, which is related to λ , the ratio of the axial-vector and vector coupling constants. By measuring this asymmetry and the neutron lifetime, it is possible to determine V_{ud} , the first element of the CKM matrix. The UCNA collaboration will be the first to measure this asymmetry using ultra-cold neutrons, which allow for nearly 100% polarization and transport far from the source to reduce backgrounds. In 2007, all major systems required for a high precision measurement of the neutron beta-asymmetry were commissioned and a measurement with $\approx 3\%$ statistical uncertainty was performed. Analysis of these initial results will be presented.

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