

Abstract Submitted
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The Nab Neutron Decay Correlation Experiment¹ CHRISTOPHER CRAWFORD, University of Kentucky, NAB COLLABORATION — Neutron decay correlations provide a clean probe of the CKM matrix element V_{ud} , and provide limits on new tensor and scalar interactions. The Nab experiment is currently being commissioned at ORNL to measure the antineutrino-electron correlation a with a relative uncertainty of 10^3 , and the Fierz interference term b with an overall uncertainty of 3×10^3 . This experiment uses a new technique to determine the antineutrino-electron angle from the energy of the electron and proton, detected in coincidence. I will present the physical design, modes of running, and projected sensitivity of this experiment.

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