Abstract Submitted
for the DNP12 Meeting of
The American Physical Society

Searching for Fierz Interference in Beta-Decay of Ultracold Neutrons KEVIN HICKERSON, California Institute of Technology, UCNb COLLABORATION, UCNA COLLABORATION — It is theorized that contributions from scalar and tensor interactions from physics beyond the Standard Model could be detectable in the spectrum of neutron beta-decay, manifest as a nonzero value for the so-called neutron Fierz interference parameter, denoted as b_n. Some models have b_n as large as 10^{-3}, which is within reach for measurement, but below the current limits set for the Fermi component b_F measured by superallowed $0+ \rightarrow 0+$ nuclear β-decays. We present progress on the UCNb experiment that uses the Ultracold Neutron (UCN) source at LANSCE to trap UCN in a 4π beta calorimeter. We also report limits on b_n extracted from data collected from the 2010 run of the UCNA experiment.

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Date submitted: 02 Jul 2012 Electronic form version 1.4