Abstract Submitted
for the APR21 Meeting of
The American Physical Society

Status Update for the UCNτ Neutron Lifetime Experiment[1] FRANCISCO GONZALEZ, Indiana Univ - Bloomington, UCNTAU COLLABORATION — The UCNτ experiment at Los Alamos National Laboratory measures the neutron lifetime by holding ultracold neutrons (UCN) in a magneto-gravitational trap for variable holding times. Precision neutron beta decay measurements provide an important insight into the Standard Model. A combination of measurements of decay correlation coefficients and the neutron lifetime generates an independent, competitive, determination of the CKM matrix element V_{ud}. UCNτ utilizes a permanent magnet array to prevent neutron-wall interactions and thus minimizes non-decay neutron loss mechanisms. During 2017 and 2018, the UCNτ collaboration gathered enough data to produce a measurement of τ_n with an expected statistical uncertainty below 0.3s, and an expected systematic uncertainty below +0.2s. We will present the present status of the experiment and analysis, as well as improvements made to achieve UCNτs goal of a total uncertainty below 0.25s.

[1]DOE Office of Science, LANL LDRD, NSF

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Date submitted: 08 Jan 2021 Electronic form version 1.4