Abstract Submitted for the SES12 Meeting of The American Physical Society

PEN Experiment: Towards a New Measurement of the Pienu Branching Ratio MARTIN LEHMAN, University of Virginia, PEN COLLABO-RATION — The experimental determination of the $\pi^+ \rightarrow e^+\nu(\gamma)$ decay branching ratio currently provides the most accurate test of lepton universality. The PEN experiment at PSI, Switzerland, aims to improve the experimental precision of 3.3×10^{-3} to 5×10^{-4} using a stopped beam approach. During runs in 2008-10, PEN has acquired over $2 \times 10^7 \pi_{e2}$ events. The experiment includes active beam detectors (degrader, mini TPC, target), central MWPC tracking with plastic scintillator hodoscopes, and a spherical pure CsI electromagnetic shower calorimeter. A progress update on key aspects of the analysis will be presented.

> Martin Lehman University of Virginia

Date submitted: 19 Sep 2012

Electronic form version 1.4