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**Update on PEN: A Precision Measurement of $\pi \rightarrow e\nu(\gamma)$ Branching Ratio** CHARLES GLASER, Univ of Virginia, PEN COLLABORATION — The PEN collaboration performed a precision measurement of the $\pi^+ \rightarrow e\nu_e(\gamma)$ branching ratio at the Paul Scherrer Institute with the goal of obtaining a relative uncertainty of $510^4$ or better. Measurement of the branching ratio $\Gamma(\pi \rightarrow e\bar{\nu}(\gamma))/\Gamma(\pi \rightarrow \mu\bar{\nu}(\gamma))$ provides the most sensitive test of lepton universality. Deviations from Standard Model predictions would signify "new" or non VA interactions, physics not currently in the Standard Model. The PEN detector consists of active target and beam counters, a mini time projection chamber, two cylindrical multi-wire proportional chambers, a plastic scintillating hodoscope, and a spherical 240-module pure CsI electromagnetic calorimeter. Discrimination between the main background and signal is facilitated by using predicted timings and energies from multiple detector elements. Proper accounting for decays in flight, detector efficiencies, and detector response, specifically the low energy tail response of the CsI calorimeter, is required for branching ratio extraction. We will update the status of the PEN project.

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