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First Results From the PIENU Experiment S. CUEN-ROCHIN, British Columbia U., PIENU COLLABORATION — The PIENU experiment at TRIUMF aims to measure the pion decay branching ratio, $R_\pi = \Gamma(\pi \to e\nu(\gamma))/\Gamma(\pi \to \mu\nu(\gamma))$ which provides a sensitive test of lepton universality and constraints on new physics scenarios. The theoretical uncertainty on the Standard Model prediction of R_π^{SM} is 0.02%, a factor of twenty smaller than the experimental uncertainty. First results from the PIENU experiment $R_\pi^{exp} = (1.2344 \pm 0.0023(stat) \pm 0.0019(syst)) \times 10^{-4}$, are consistent with the SM prediction and represent a 0.1% measurement of lepton non-universality. Analysis of additional data will allow increased precision up to 0.05%.

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