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Muon radiative decay and limits on non-(V-A) weak interaction MAXIM BYCHKOV, University of Virginia, PIBETA/PEN COLLABORATION — Using the PIBETA detector in its original form and, more recently, as configured for the PEN experiment, we have recorded the world largest sample of radiative muon decay events $\mu^+ \to e^+\nu_e \bar{\nu}_\mu \gamma$, resulting from secondary muons produced by a stopped pion beam. Theoretical predictions of the muon radiative decay branching ratio depend on the Michel parameters ρ and $\bar{\eta}$ which, along with other muon decay parameters, can be used to set limits on the possible extensions of the V-A form of the electroweak interactions. We will report the branching ratio for this process in a wide kinematic region of phase space, and a new, improved value of the parameter <eta-bar>, which, coupled with other results, provide comprehensive limits on non-standard contributions to the electoweak interaction.

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