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TWIST Measurement of the Decay Parameters rho and delta of Normal Muon Decay JIM MUSSER, Texas A&M University, TWIST COLLABORATION — The TWIST collaboration is improving the precision on the characterization of normal muon decay, $\mu^+ \to e^+\nu_e\bar{\nu}_\mu$, through measurements of the decay parameters ρ, δ and $P_\mu\xi$. The analysis of the initial TWIST measurements of ρ and δ have been completed. We find $\rho = 0.75080 \pm 0.00032(stat.) \pm 0.00097(syst.) \pm 0.00023$ and $\delta = 0.74964 \pm 0.00066(stat.) \pm 0.00112(syst.)$, consistent with the Standard Model. The improved precision places new limits on physics beyond the Standard Model, such as the parameters describing left-right symmetric models. The current results and implications will be discussed.

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