

Status of the Møller Scattering Parity Experiment at SLAC

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Experiment E158 at SLAC is presently analyzing the first physics data from the scattering of polarized electrons from the electrons in a LH₂ target. The parity-violating asymmetry is predicted to be on the order of 10^{-7} in the Standard Model. We have recently completed a physics run, and the statistical precision of that data set is sufficient to clearly observe the predicted effect. We plan to obtain sufficient data in 2002-2003 to measure the asymmetry to 7% of itself, providing an important window on new physics at the TeV scale.