

# PROGRESS ON THE FINAL MEASUREMENTS FROM THE TWIST EXPERIMENT \*

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The TRIUMF Weak Interaction Symmetry Test (TWIST) continues to make excellent progress towards its precision goal. The experiment is preparing to analyse its final muon decay data, and this talk will describe the improvements that have taken place in data acquisition and analysis.

The talk will focus on the asymmetry in the muon decay spectrum, which is described by the product  $P_\mu\xi$ , where  $P_\mu$  is the polarisation of the muon from pion decay, and  $\xi$  is one of the four Michel parameters. This product is sensitive to new physics, such as left-right symmetric models for the weak interaction.

The experiment uses highly polarised muons from pion decay, and uncertainties on the previous TWIST measurement of  $P_\mu\xi$  were dominated by our understanding of the muon beam depolarisation. The improvements in understanding will be described, including the results from a subsidiary muon spin relaxation experiment.

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