

Abstract Submitted
for the APR07 Meeting of
The American Physical Society

Setting limits on a new parameter outside of Standard Model muon decay.¹ KRISTEN WILLIAMS, Jacksonville State University — This work is a response to predictions concerning a new tensor interaction which is outside of the Michel local interactions of Standard Model muon decay. This interaction is assumed to be parameterized by the addition of a new variable, κ , to the differential decay probability spectrum. The *TWIST* experiment is measuring the Michel parameters ρ , $P_\mu\xi$, and δ in muon decay to search for deviations from the Standard Model. Our analysis was of the approximate contribution that κ would make to the *TWIST* measurements and the sensitivity of this contribution to the fitted momentum range. Efforts were made to set a limit on κ in accordance with both past *TWIST* fit ranges and assumed future ones.

¹Research conducted at the Cyclotron Institute at Texas A&M University

Kristen Williams
Jacksonville State University

Date submitted: 17 Jan 2007

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