## Abstract Submitted for the DNP16 Meeting of The American Physical Society

Status of the TAMUTRAP facility at Texas A&M University<sup>1</sup> DAN MELCONIAN, EAMES BENNETT, MICHAEL MEHLMAN, JOHN PATTI, PRAVEEN SHIDLING, Cyclotron Institute, Texas AM University — The Cyclotron Institute at Texas A&M University is nearing completion of an upgrade to recommission our K150 cyclotron and couple it to our K500 cyclotron, allowing the two to either work in parallel or together for re-acceleration of exotic ions. One of the end-stations being constructed to take advantage of the high intenstities available from the K150 is TAMUTRAP: a 180-mm inner diameter cylindrical Penning trap. The unprecedented open-area of TAMUTRAP is ideal for  $4\pi$  collection of the delayed protons following the superallowed  $\beta$  decays of proton-rich nuclei. In particular, observation of the  $\beta$ -delayed proton in coincidence with the  $\beta$  can be used to determine the  $\beta - \nu$  correlation parameter, the value of which can be used as a sensitive probe of possible scalar currents contributing to the weak interaction.

An overview of the correlation experiments planned at TAMUTRAP as well as its current status will be presented.

<sup>1</sup>Supported by DOE grant numbers DE-FG03-93ER40773 and DE-FG02-11ER41747

 $\begin{array}{c} {\rm Dan\ Melconian} \\ {\rm Cyclotron\ Institute,\ Texas\ A} \\ {\rm M\ University} \end{array}$ 

Date submitted: 01 Jul 2016 Electronic form version 1.4