

Abstract for an Invited Paper  
for the APR06 Meeting of  
The American Physical Society

**Superallowed Nuclear Beta Decay: a Window on the Weak Interaction**

J.C. HARDY, Texas A&M University

For more than 50 years, superallowed  $0^+ \rightarrow 0^+$  beta decay has been used to probe the weak interaction. By now, more than a dozen such superallowed transitions are known to  $\sim 0.1\%$  precision. The results provide an exacting confirmation of the Conserved Vector Current hypothesis and are also a key component in the most demanding available test of the unitarity of the Cabibbo-Kobayashi-Maskawa matrix. This talk will present the current status of measured results, describe some contemporary experiments and indicate the prospects for future improvements.