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### **Searching for Physics Beyond the Standard Model using Superaligned Beta Decay<sup>1</sup>**

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Tests of the Standard Model through precision measurements of nuclear decay properties have proven to be a valuable tool in experimental subatomic physics. Of these investigations, superallowed Fermi nuclear  $\beta$  decay data are among the most important, as they currently provide the most precise determinations of both the vector coupling strength in the weak interaction,  $G_V$ , and the up-down element of the CKM quark mixing matrix,  $V_{ud}$ . These studies provide some of the best constraints on the possibility of additional quark generations, as well as limits on exotic currents in the weak interaction. In this talk, I will highlight the tremendous experimental and theoretical progress that has been made in this field - particularly the past 15 years - and provide a picture of where it is headed in the near future.

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