

# $\beta$ -Decay in Perspective: Standard Model and Beyond

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Studies of nuclear and neutron  $\beta$ -decay have played a vital role in developing and testing the Standard Model. The next generation of these studies is poised to probe key aspects of what could be a “new Standard Model”. Realizing this potential requires not only advances in experimental sensitivity but also resolution of theoretical challenges. In this talk, I give an overview of the potential implications for physics beyond the Standard Model of  $\beta$ -decay experiments and recent as well as recent and prospective advances in their theoretical interpretation.