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### **Measuring the Neutron Lifetime**

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Precision measurements of neutron beta decay parameters address basic questions in nuclear and particle physics, astrophysics, and cosmology. As a basic semileptonic decay system, the free neutron plays an important role in understanding the physics of the weak interaction, and improving the precision of the neutron lifetime is fundamental to testing the validity of the theory. Currently, there are two main strategies for measuring the lifetime. Experiments using confined, ultracold neutrons determine the lifetime by counting neutrons that remain after some elapsed time; experiments using cold neutrons measure the absolute specific activity of a beam by counting decay protons and the neutron flux simultaneously. The status of the recent lifetime measurements using these methods is discussed along with prospects for future experiments using new techniques.