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Hadronic Weak Interaction studies at the Spallation Neutron Source

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Neutrons have been a useful probe in many fields of science as well as an important physical system for study in themselves. Modern neutron sources provide extraordinary opportunities to study a wide variety of physics topics. Among them is a detailed study of the weak interaction. An overview of studies of the hadronic weak (quark-quark) interactions at the Spallation Neutron Source (SNS) is presented. These measurements, done in few-nucleon systems are finally letting us gain knowledge of the hadronic weak interaction without the contributions from nuclear effects. Two such measurements, NPDGamma and the $n+^3\text{He}$ experiment, were recently completed on the Fundamental Neutron Physics Beamline at the SNS. Experimental approaches will be described and the current state of the analysis presented.

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