

Abstract Submitted  
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**ARISE** SYDNEY TONEY, JEFFERY SECREST, Armstrong Atlantic State Univ, HALO COLLABORATION, SNO+ COLLABORATION — A supernova is one of the most catastrophic events to occur in our universe. When a core collapse supernova occurs, an enormous burst of neutrinos of all flavors is released. A number of neutrino experiments (such as the Helium And Lead Observatory (HALO) and the next generation Sudbury Neutrino Observatory (SNO+)) are capable of detecting these supernova neutrinos generated within our galactic neighborhood. The observation of supernova neutrinos may provide insight into the mechanisms for a core collapse supernovae and properties of neutrinos. This poster will focus on the development of a supernova Monte Carlo that can be used to study the supernova neutrino signal in a neutrino detector.

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