Abstract Submitted
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Supernova Neutrino Studies for the Deep Underground Neutrino Experiment[1] ERIN CONLEY, Duke Univ, DEEP UNDERGROUND NEUTRINO EXPERIMENT COLLABORATION — Currently, the mechanism behind supernova core collapse is not fully understood. Neutrinos carry a majority of the core collapse energy and their detection will provide crucial information about the supernova. Comprehending the physics of how massive stars die will lead to a better understanding of the creation of elements, properties of neutrinos, and constraints on beyond-the-Standard-Model physics. This talk will report on simulation studies of supernova neutrinos in the Deep Underground Neutrino Experiment (DUNE) and development of algorithms to distinguish interaction channels of neutrinos with liquid argon.

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