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# NOvA as a Supernova Neutrino Observatory: Status and Prospects

*Friday, 14 June 2019 18:00 (3 hours)*

Detectors around the world are poised to measure the neutrino flux from the next galactic core-collapse supernova in unprecedented detail and to shed light on the hitherto poorly-understood dynamics involved in these explosions, and on the nature of the neutrinos themselves. The utility of such an observation is enhanced as the diversity of detectors and neutrino flavor sensitivity increases. NOvA is a long-baseline neutrino oscillation experiment designed to measure a neutrino beam with energies narrowly-peaked around 2 GeV. In the case of a 10 kpc supernova, several thousand MeV-scale neutrino interactions are expected to occur in NOvA' s liquid scintillator near and far detectors. Measuring these neutrinos requires overcoming several challenges: the SN neutrino spectrum is close to detection threshold, the far detector is subject to a large cosmic muon rate, and each interaction generates a small number of depositions which can resemble electronic noise. Here I present recent work in overcoming these challenges in an effort to make measurement of the supernova neutrino flux with the NOvA detectors possible.

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