

# Observation of neutrino flux from Supernovae and the Sun with semiconductor cryogenic detectors.

*Tuesday, August 20, 2024 2:45 PM (10 minutes)*

Neutrinos from all kinds of sources can be the cause of a noise signal in dark matter detectors, however, they can also be the medium to detect important astronomical events like Supernovae (SN) or to probe the solar activity. Most of the information that can be detected on earth about the occurrence of a SN or about the nuclear reactions happening inside the sun is in the form of neutrinos, so its detection is imperative for the understanding of these massive astronomical events. This presentation has the objective to study the sensitivity of semiconductor based cryogenic detectors, like the ones on the SuperCDMS experiment, to the detection of neutrinos from SN and to the solar neutrino flux. A comparison is made between the number of events that could be observed in detectors made of different kinds of semiconductive materials for solar neutrinos and SN at different distances with the use of different models of emission.

## What area of study best describes your talk?

Physics

## If you answered 'Other', please provide the study area.

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